

**Iowa Department of Natural Resources  
Title V Operating Permit**

**Name of Permitted Facility: Monsanto Company - Muscatine**  
**Facility Location: 2500 Wiggins Road, Muscatine, IA 52761**  
**Air Quality Operating Permit Number: 04-TV-006R1**  
**Expiration Date: July 9, 2014**  
**Permit Renewal Application Deadline: January 9, 2014**

**EIQ Number: 92-6908**  
**Facility File Number: 70-01-008**

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**Responsible Official**

**Name: Rod Denton**  
**Title: Plant Manager**  
**Mailing Address: P.O. Box 473, Muscatine, IA 52761**  
**Phone #: (563) 262-7200**

**Permit Contact Person for the Facility**

**Name: Sheri Traser-Schmalz**  
**Title: SQESH Area Leader**  
**Mailing Address: P.O. Box 473, Muscatine, IA 52761**  
**Phone #: (563) 262-7482**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

**For the Director of the Department of Natural Resources**

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Douglas A. Campbell, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

|           |   |
|-----------|---|
| acfm      | actual cubic feet per minute                  |
| CFR       | Code of Federal Regulation                    |
| CE        | control equipment                             |
| CEM       | continuous emission monitor                   |
| °F        | degrees Fahrenheit                            |
| EIQ       | emissions inventory questionnaire             |
| EP        | emission point                                |
| EU        | emission unit                                 |
| gal./hr.  | gallons per hour                              |
| gr./dscf  | grains per dry standard cubic foot            |
| IAC       | Iowa Administrative Code                      |
| IDNR      | Iowa Department of Natural Resources          |
| MVAC      | motor vehicle air conditioner                 |
| NAICS     | North American Industry Classification System |
| NSPS      | new source performance standard               |
| ppmv      | parts per million by volume                   |
| lb./hr.   | pounds per hour                               |
| lb./MMBtu | pounds per million British thermal units      |
| SCC       | Source Classification Codes                   |
| scfm      | standard cubic feet per minute                |
| SIC       | Standard Industrial Classification            |
| TPY       | tons per year                                 |
| USEPA     | United States Environmental Protection Agency |

### Pollutants

|                  |  |
|------------------|--|
| PM               | particulate matter                                 |
| PM <sub>10</sub> | particulate matter ten microns or less in diameter |
| SO <sub>2</sub>  | sulfur dioxide                                     |
| NO <sub>x</sub>  | nitrogen oxides                                    |
| VOC              | volatile organic compound                          |
| CO               | carbon monoxide                                    |
| HAP              | hazardous air pollutant                            |

# I. Facility Description and Equipment List

Facility Name: Monsanto Company - Muscatine

Permit Number: 04-TV-006R1

Facility Description: Agricultural Chemical Manufacturing (SIC 2879)

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## Liquid Formulations Equipment List

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| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b> | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|----------------------------------|--|
| 253                          | EU-10-5039-401              | #1 Raw Material Storage Tank     | 99-A-884-S1                            |
| 254                          | EU-10-5039-412              | #2 Raw Material Storage Tank     | 99-A-885-S1                            |
| 255                          | EU-10-5039-421              | #3 Raw Material Storage Tank     | 99-A-886-S1                            |
| 256                          | EU-10-5039-429              | #4 Raw Material Storage Tank     | 99-A-887-S1                            |
| 336                          | EU-10-0741                  | #6 Raw Material Storage Tank     | 99-A-182-S1                            |
| 309                          | EU-10-0594                  | #1 Amine Salt Storage Tank       | 97-A-186-S5                            |
| 335                          | EU-10-0727                  | #2 Amine Salt Storage Tank       | 98-A-940-S4                            |
| 356                          | EU-10-0812                  | #3 Amine Salt Storage Tank       | 99-A-1077-S3                           |
| 357                          | EU-10-0815                  | #4 Amine Salt Storage Tank       | 99-A-1078-S3                           |
| 366                          | EU-10-0945                  | #5 K Salt Storage Tank           | 01-A-1352-S1                           |
| 367                          | EU-10-0951                  | #6 K Salt Storage Tank           | 01-A-1353-S1                           |
| 41                           | EU-8TK-1                    | #1 Solvent Storage Tank          | 99-A-883-S1                            |
| 40                           | EU-8-2836-339               | #2 Solvent Storage Tank          | NA                                     |
| 43                           | EU-8-2836-337               | #3 Solvent Storage Tank          | NA                                     |
| 23                           | EU-10-2014-105              | #1 Emulsifier Tank               | NA                                     |
| 25                           | EU-10-2014-207              | #2 Emulsifier Tank               | NA                                     |
| 46                           | EU-10TK-5                   | #3 Emulsifier Tank               | NA                                     |
| 259                          | EU-10TK-23                  | #4 Emulsifier Tank               | 99-A-894-S1                            |
| 247                          | EU-10TK-22                  | #5 Emulsifier Tank               | 99-A-895-S1                            |
| 257                          | EU-10-5039-437              | #6 Emulsifier Tank               | 99-A-888-S1                            |
| 322                          | EU-10-0614                  | #7 Emulsifier Tank               | 97-A-755-S2                            |
| 323                          | EU-10-0617                  | #8 Emulsifier Tank               | 97-A-756-S2                            |
| 344                          | EU-10-0753                  | #9 Emulsifier Tank               | 99-A-511                               |
| 345                          | EU-10-0758                  | #10 Emulsifier Tank              | 99-A-512                               |
| 34                           | EU-10TK-3                   | Additive Tank                    | NA                                     |
| 24                           | EU-10-2014-113              | #1 Blend Tank                    | NA                                     |
| 26                           | EU-10-2014-210              | #2 Blend Tank                    | NA                                     |
| 42                           | EU-10TK-26                  | #3 Blend Tank                    | NA                                     |
| 139                          | EU-10D-1                    | #4 Blend Tank                    | 01-A-769                               |
| 289                          | EU-10-581                   | #5 Blend Tank                    | NA                                     |
| 260                          | EU-10TK-24                  | Small Blend Tank                 | 99-A-897-S1                            |
| 258                          | EU-10-5039-453              | #1 Product Storage Tank          | 99-A-890-S1                            |
| 248                          | EU-10-5025-461              | #2 Product Storage Tank          | 99-A-891-S1                            |
| 249                          | EU-10-5025-466              | #3 Product Storage Tank          | 99-A-892-S1                            |
| 250                          | EU-10-5025-471              | #4 Product Storage Tank          | 99-A-893-S1                            |

**Liquid Formulations Equipment List (cont.)**

| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b>             | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|--|--|
| 251                          | EU-10-5025-445              | #5 Product Storage Tank                      | 99-A-889-S2                            |
| 290                          | EU-10-584                   | #6 Product Storage Tank                      | NA                                     |
| 332                          | EU-10-662                   | #7 Product Storage Tank                      | 98-A-551                               |
| 333                          | EU-10-710                   | #8 Product Storage Tank                      | 98-A-623-S1                            |
| 334                          | EU-10-711                   | #9 Product Storage Tank                      | 98-A-624-S1                            |
| 369                          | EU-10-180                   | #10 Product Storage Tank                     | 02-A-220                               |
| 202                          | EU-10-3773-410              | High Speed Juggling                          | NA                                     |
| 137                          | EU-10FN-22                  | Spent Product Filter Drying (Juggling)       | NA                                     |
| 172                          | EU-10FN-2                   | #1 Drum Filling                              | NA                                     |
| 173                          | EU-10FN-3-1                 | Spent Product Filter Drying (Drumming)       | NA                                     |
|                              | EU-10FN-3-2                 | Product Shuttle Filling                      |  |
| 144                          | EU-8BL-1                    | #1 South Bulk Loading                        | NA                                     |
| 145                          | EU-8BL-2                    | #2 South Bulk Loading                        | NA                                     |
| 207                          | EU-10BL-1                   | Bulk Rail Loading                            | NA                                     |
| 208                          | EU-10BL-2                   | Bulk Truck Loading                           | NA                                     |
| 329                          | EU-10BL-3                   | Bulk Truck Loading                           | 98-A-002                               |
| 359                          | EU-10-0897                  | Glyphosate Salt Rail Loading                 | 01-A-559                               |
| 370                          | EU-10BL-4                   | Bulk Product Rail Loading                    | 02-A-221                               |
| 241                          | EU-10TK-21                  | Wastewater Tank                              | 99-A-896                               |
| 27                           | EU-10FUG-3                  | Liquid Formulations Blending (Non-captured)  | NA                                     |
| 28                           | EU-10FUG-1                  | Liquid Formulations Packaging (Non-captured) | NA                                     |

**Liquid Formulations Insignificant Activities Equipment List**

| <b>Insignificant Emission Unit Number</b> | <b>Insignificant Emission Unit Description</b> |
|---|--|
| EU-10-1143                                | Surfactant Storage Tank                        |
| EU-10TK-27                                | Glycol Thawing Storage Tank                    |
| EU-8TK-3                                  | Bulk Waste Storage Tank                        |
| EU-10-3773-420                            | High Speed Jug Line Sump Tank                  |
| EU-10-0603                                | #2 Drum Filling                                |
| EU-10-551                                 | Safener Premix Tank                            |
| EU-10-0935                                | Formulations Test Storage Tank                 |
| EU-10-0936                                | Formulations Test Storage Tank                 |
| EU-10-0937                                | Formulations Test Storage Tank                 |
| EU-10-0938                                | Formulations Test Storage Tank                 |
| EU-10-0939                                | Formulations Test Storage Tank                 |

## Flowable Formulations Equipment List

| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b>        | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|---|--|
| 181                          | EU-14TK-350                 | Raw Material Storage Tank               | 99-A-264                               |
| 182                          | EU-14TK-33                  | Raw Material Storage Tank               | 99-A-513                               |
| 299                          | EU-14TK-38                  | Raw Material Storage Tank               | 99-A-514                               |
| 346                          |                             |   |  |
| 310                          | EU-14TK-356                 | PAPI Storage Tank                       | 96-A-1263                              |
| 347                          | EU-14-464                   | Isocyanate Storage Tank                 | 99-A-515                               |
| 361                          | EU-14-0828                  | Herbicide Additive Storage Tank         | 01-A-826                               |
| 303                          | EU-14TK-26                  | Herbicide Additive/Product Storage Tank | NA                                     |
| 311                          | EU-14TK-300                 | PAPI Feed Tank                          | 96-A-1264                              |
| 326                          | EU-14TK-306                 | Isocyanate Feed Tank                    | 97-A-860                               |
| 272                          | EU-14TK-31                  | Residence Time Tank                     | 93-A-138                               |
| 301                          | EU-14TK-31                  | Residence Time Tank                     | NA                                     |
|                              | EU-14TK-280                 | Product Surge Tank                      | NA                                     |
| 187                          | EU-14TK-101                 | Product Storage Tank                    | 96-A-267-S1                            |
| 188                          | EU-14TK-102                 | Product Storage Tank                    | 96-A-268-S1                            |
| 211                          | EU-14TK-390                 | Product Storage Tank                    | 96-A-265-S1                            |
| 212                          | EU-14TK-391                 | Product Storage Tank                    | 96-A-266-S1                            |
| 300                          | EU-14TK-101                 | Product Storage Tank                    | NA                                     |
|                              | EU-14TK-102                 | Product Storage Tank                    |  |
|                              | EU-14TK-390                 | Product Storage Tank                    |  |
|                              | EU-14TK-391                 | Product Storage Tank                    |  |
| 216                          | EU-14TK-32                  | Premix Tank                             | 86-A-019-S5                            |
|                              | EU-14TK-36                  | Formulation Tank                        |  |
|                              | EU-14TK-751                 | Formulation Tank                        |  |
|                              | EU-14-186                   | East Supersack Unloading                |  |
|                              | EU-14-187                   | West Supersack Unloading                |  |
|                              | EU-14-763                   | North Supersack Unloading               |  |
| 339                          | EU-14TK-13                  | West Stabilizer Tank                    | 99-A-395                               |
|                              | EU-14TK-21                  | East Stabilizer Tank                    |  |
| 174                          | EU-14D-1                    | Flaked Pesticide Handling               | 81-A-076                               |
| 186                          | EU-14BL-1                   | East Bulk Herbicide Loading             | 99-A-898                               |
| 171                          | EU-14BL-2                   | West Bulk Herbicide Loading             | 99-A-899                               |
| 363                          | EU-14BL-3                   | Bulk Truck Loading/Unloading            | 02-A-902                               |
| 368                          | EU-14-875                   | Rail Unloading/Product Rail Loading     | 02-A-903                               |
| 389                          | EU-14-0899                  | Bulk Rail Loading                       | 03-A-312                               |

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**Flowable Formulations Equipment List (cont.)**

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| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b> | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|----------------------------------|--|
| 394                          | EU-14-0880                  | Jug Dumpback                     | 04-A-957                               |
| 395                          | EU-14-0975                  | Seed Corn Handling               | 06-A-1025-S1                           |
| 159                          | EU-14-FUG-1                 | Flowables (Non-Captured)         | NA                                     |

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**Flowable Formulations Insignificant Activities Equipment List**

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| <b>Insignificant Emission Unit Number</b> | <b>Insignificant Emission Unit Description</b> |
|---|--|
| EU-14-0198-1                              | Slurry Tank                                    |
| EU-14-0198-2                              | Dicamba Hood                                   |
| EU-14TK-32                                | Premix Tank                                    |
| EU-14TK-216                               | Densification Tank 216 w/ Carbon Unit          |
| EU-14TK-221                               | Densification Tank 221 w/ Carbon Unit          |
| EU-14TK-227                               | Densification Tank 227 w/ Carbon Unit          |
| EU-14TK-202                               | HMD Storage Tank                               |
| EU-14TK-316                               | Release Tank 316 w/Carbon                      |
| EU-14TK-318                               | Release Tank 318 w/ Carbon                     |
| EU-14TK-322                               | Release Tank 322 w/Carbon                      |
| EU-14TK-308                               | HMD Feed Tank                                  |
| EU-14TK-20                                | Glycol Tank                                    |
| EU-14TK-8                                 | Glycol Tank                                    |
| EU-14TK-200                               | Raw Material Storage Tank                      |
| EU-14TK-241                               | Chiller Surge Tank                             |
| EU-14TK-28                                | Additive Mix Tank                              |
| EU-14TK-274                               | Additive Feed Tank                             |
| EU-14TK-280                               | Product Surge Tank                             |
| EU-14TK-255                               | Divert Tank                                    |
| EU-14TK-36                                | Formulation Tank A w/ Carbon                   |
| EU-14TK-751                               | Formulation Tank B w/ Carbon                   |
| EU-14TK-2                                 | Flaker Feed Tank                               |
| EU-14TK-27                                | Process Sump Tank                              |
| EU-14-0404                                | Glycol Tank                                    |
| EU-14TK-229                               | #1 Waste Tank                                  |
| EU-14TK-231                               | #2 Waste Tank                                  |
| EU-14-0895                                | Flowables Process Rinsewater Tank              |
| EU-14-0010                                | PAPI Solvent Storage`                          |

## II. Plant-Wide Conditions

Facility Name: Monsanto Company - Muscatine

Permit Number: 04-TV-006R1

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

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### Permit Duration

The term of this permit is: Five (5) years from permit issuance

Commencing on: July 10, 2009

Ending on: July 9, 2014

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

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### Emission Limits

*Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:*

Opacity (visible emissions): 40% opacity

Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume

Authority for Requirement: 567 IAC 23.3(3)"e"

### Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

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### **Compliance Plan**

*The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.*

Unless otherwise noted in Section III of this permit, Monsanto Company - Muscatine is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Monsanto Company - Muscatine shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

## Multiple Title V Permits

Monsanto Company has obtained three Title V permits for their Muscatine facility. The facility will be considered as a whole with regard to applicability of various air permitting programs. This permit covers two process areas at the facility: the Liquid Formulations facility and the Flowable Formulations facility.

- The Flowable Formulations are typically water-based liquid herbicide formulations consisting of herbicide technical ingredients and other herbicide additives. Both microencapsulated and non-microencapsulated formulations are produced.
- The Liquid Formulations area formulates, packages, and ships herbicides as emulsifiable concentrates, herbicide technical active ingredients, and formulated herbicide premixes. The Liquid Formulations Facility packages and ships products in jugs, drums, shuttles, and mini-bulk containers. There are also facilities for providing bulk shipment of products in rail cars or tank trucks.

## Other Title V Permits

IDNR issued permit 04-TV-002 (for EIQ # 92-3670) to cover the CAC unit, GT unit, and the Multipurpose unit at this facility.

- The CAC Unit produces the herbicide intermediate chloroacetyl chloride (CAC). CAC is used at the facility to produce alachlor, acetochlor, butachlor, and propachlor.
- The Glyphosate Technical (GT) Unit produces two salts of glyphosate: amine salt and potassium salt. These salt solutions are considered herbicide active ingredients.
- The Multipurpose Unit produces two products on a campaign basis. Part of the year, the unit may produce propachlor, a herbicide active ingredient, and n-isopropylaniline (NIPA), an intermediate used in the propachlor process. Other times during the year, the unit may produce MON 13900 (furalazole), a seed safener that is blended with acetochlor for use by Monsanto's formulation facilities. The products cannot be made simultaneously. This unit may also be used to produce the herbicide metolachlor using a process similar to that used for propochlor production.

IDNR issued permit 04-TV-010 (for EIQ # 92-6909) to cover the A-Unit, and the Unit Services.

- The A-Unit produces acetochlor, alachlor, and butachlor from CAC.
- The Unit Services area includes utilities and waste treatment activities at the facility.

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## **Section 112(j) of the Clean Air Act (MACT Hammer) Compliance Plan**

This facility operates emissions unit(s) that are of the source type regulated by the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters (567 IAC 23.1(4)"dd", 40 CFR Part 63, Subpart DDDDD). On July 30, 2007, the DC Circuit Court vacated this entire standard. Since the standard has been vacated, the units may be subject to the requirements of section 112(j) of the Clean Air Act. Section 112(j) requires the facility to submit an application addressing the control of HAP emissions from these units and also requires that the MACT (Maximum Achievable Control Technology) be incorporated into the facility's Title V operating permit. The DNR is not requiring affected facilities to submit 112(j) applications at this time. However, the DNR recommends that affected facilities submit the minimum information to satisfy 112(j) application requirements. The DNR is suggesting submittal of this information by January 31, 2009, because this date is 18 months from the date the D.C. Court issued its mandate. (Refer to the Air Quality Bureau letter dated December 31, 2008 for additional detail.) These application requirements were submitted by Monsanto Company – Muscatine on January 16, 2009.

Authority for Requirement: 40 CFR 63.52; 567 IAC 23.1(4)"b"(2)

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### **Rated Capacity**

The rated capacities listed within this permit are included for descriptive purposes only. These rated capacities are not considered to be enforceable permit limits placed upon the emission units.

### III. Emission Point-Specific Conditions

Facility Name: Monsanto Company - Muscatine

Permit Number: **04-TV-006R1**

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#### Liquid Formulations Equipment List

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| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b> | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|----------------------------------|--|
| 253                          | EU-10-5039-401              | #1 Raw Material Storage Tank     | 99-A-884-S1                            |
| 254                          | EU-10-5039-412              | #2 Raw Material Storage Tank     | 99-A-885-S1                            |
| 255                          | EU-10-5039-421              | #3 Raw Material Storage Tank     | 99-A-886-S1                            |
| 256                          | EU-10-5039-429              | #4 Raw Material Storage Tank     | 99-A-887-S1                            |
| 336                          | EU-10-0741                  | #6 Raw Material Storage Tank     | 99-A-182-S1                            |
| 309                          | EU-10-0594                  | #1 Amine Salt Storage Tank       | 97-A-186-S5                            |
| 335                          | EU-10-0727                  | #2 Amine Salt Storage Tank       | 98-A-940-S4                            |
| 356                          | EU-10-0812                  | #3 Amine Salt Storage Tank       | 99-A-1077-S3                           |
| 357                          | EU-10-0815                  | #4 Amine Salt Storage Tank       | 99-A-1078-S3                           |
| 366                          | EU-10-0945                  | #5 K Salt Storage Tank           | 01-A-1352-S1                           |
| 367                          | EU-10-0951                  | #6 K Salt Storage Tank           | 01-A-1353-S1                           |
| 41                           | EU-8TK-1                    | #1 Solvent Storage Tank          | 99-A-883-S1                            |
| 40                           | EU-8-2836-339               | #2 Solvent Storage Tank          | NA                                     |
| 43                           | EU-8-2836-337               | #3 Solvent Storage Tank          | NA                                     |
| 23                           | EU-10-2014-105              | #1 Emulsifier Tank               | NA                                     |
| 25                           | EU-10-2014-207              | #2 Emulsifier Tank               | NA                                     |
| 46                           | EU-10TK-5                   | #3 Emulsifier Tank               | NA                                     |
| 259                          | EU-10TK-23                  | #4 Emulsifier Tank               | 99-A-894-S1                            |
| 247                          | EU-10TK-22                  | #5 Emulsifier Tank               | 99-A-895-S1                            |
| 257                          | EU-10-5039-437              | #6 Emulsifier Tank               | 99-A-888-S1                            |
| 322                          | EU-10-0614                  | #7 Emulsifier Tank               | 97-A-755-S2                            |
| 323                          | EU-10-0617                  | #8 Emulsifier Tank               | 97-A-756-S2                            |
| 344                          | EU-10-0753                  | #9 Emulsifier Tank               | 99-A-511                               |
| 345                          | EU-10-0758                  | #10 Emulsifier Tank              | 99-A-512                               |
| 34                           | EU-10TK-3                   | Additive Tank                    | NA                                     |
| 24                           | EU-10-2014-113              | #1 Blend Tank                    | NA                                     |
| 26                           | EU-10-2014-210              | #2 Blend Tank                    | NA                                     |
| 42                           | EU-10TK-26                  | #3 Blend Tank                    | NA                                     |
| 139                          | EU-10D-1                    | #4 Blend Tank                    | 01-A-769                               |
| 289                          | EU-10-581                   | #5 Blend Tank                    | NA                                     |
| 260                          | EU-10TK-24                  | Small Blend Tank                 | 99-A-897-S1                            |
| 258                          | EU-10-5039-453              | #1 Product Storage Tank          | 99-A-890-S1                            |
| 248                          | EU-10-5025-461              | #2 Product Storage Tank          | 99-A-891-S1                            |
| 249                          | EU-10-5025-466              | #3 Product Storage Tank          | 99-A-892-S1                            |
| 250                          | EU-10-5025-471              | #4 Product Storage Tank          | 99-A-893-S1                            |

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**Liquid Formulations Equipment List (cont.)**

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| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b>        | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|---|--|
| 251                          | EU-10-5025-445              | #5 Product Storage Tank                 | 99-A-889-S2                            |
| 290                          | EU-10-584                   | #6 Product Storage Tank                 | NA                                     |
| 332                          | EU-10-662                   | #7 Product Storage Tank                 | 98-A-551                               |
| 333                          | EU-10-710                   | #8 Product Storage Tank                 | 98-A-623-S1                            |
| 334                          | EU-10-711                   | #9 Product Storage Tank                 | 98-A-624-S1                            |
| 369                          | EU-10-180                   | #10 Product Storage Tank                | 02-A-220                               |
| 202                          | EU-10-3773-410              | High Speed Juggling                     | NA                                     |
| 137                          | EU-10FN-22                  | Spent Product Filter Drying (Juggling)  | NA                                     |
| 172                          | EU-10FN-2                   | #1 Drum Filling                         | NA                                     |
| 173                          | EU-10FN-3-1                 | Spent Product Filter Drying (Drumming)  | NA                                     |
|                              | EU-10FN-3-2                 | Product Shuttle Filling                 |  |
| 144                          | EU-8BL-1                    | #1 South Bulk Loading                   | NA                                     |
| 145                          | EU-8BL-2                    | #2 South Bulk Loading                   | NA                                     |
| 207                          | EU-10BL-1                   | Bulk Rail Loading                       | NA                                     |
| 208                          | EU-10BL-2                   | Bulk Truck Loading                      | NA                                     |
| 329                          | EU-10BL-3                   | Bulk Truck Loading                      | 98-A-002                               |
| 359                          | EU-10-0897                  | Glyphosate Salt Rail Loading            | 01-A-559                               |
| 370                          | EU-10BL-4                   | Bulk Product Rail Loading               | 02-A-221                               |
| 241                          | EU-10TK-21                  | Wastewater Tank                         | 99-A-896                               |
| 27                           | EU-10FUG-3                  | Liquid Formulations Blending Fugitives  | NA                                     |
| 28                           | EU-10FUG-1                  | Liquid Formulations Packaging Fugitives | NA                                     |

**40 CFR 63 Subpart FFFF – Miscellaneous Organic Chemical Manufacturing (MON) MACT**

All of the emission units included in the Liquid Formulations Process are subject to 40 CFR 63 Subpart FFFF. See Appendix A for rule text.

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**Emission Point ID Numbers: 253, 254, 255, 256**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 253                   | EU-10-5039-401       | #1 Raw Material Storage Tank     | NA                       | Herbicide Additive  | 30,000 gallons        | 99-A-884-S1                |
| 254                   | EU-10-5039-412       | #2 Raw Material Storage Tank     | NA                       | Herbicide Additive  | 30,000 gallons        | 99-A-885-S1                |
| 255                   | EU-10-5039-421       | #3 Raw Material Storage Tank     | NA                       | Herbicide Additive  | 30,000 gallons        | 99-A-886-S1                |
| 256                   | EU-10-5039-429       | #4 Raw Material Storage Tank     | NA                       | Herbicide Additive  | 30,000 gallons        | 99-A-887-S1                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Reporting & Record keeping:**

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A record of all materials stored in each vessel shall be maintained. An MSDS shall be kept for all materials stored.
2. The amount of material put through each vessel over the previous month shall be recorded at the end of each month. The total amount of material put through each vessel over the previous twelve months shall also be recorded at the end of each month.
3. An estimate of the amount of VOC's emitted from each vessel over the previous month shall be recorded at the end of each month. The total amount of VOC's emitted from each vessel over the previous twelve month shall also be recorded at the end of each month.

Authority for Requirement: Iowa DNR Construction Permits 99-A-884-S1 – 99-A-887-S1

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

EP's 253, 255, & 256

Stack Height, (ft, from the ground): 43

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 86

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permits 99-A-884-S1, 99-A-886-S1, 99-A-887-S1

EP 254

Stack Height, (ft, from the ground): 43

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): \*

Exhaust Temperature (°F): 86

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permits 99-A-885-S1

\* Note: The volumetric flowrate out of this emission point is the result of the working and standing losses from this tank. The flowrate will be variable depending on the amount of material fed to or removed from this tank as well as the ambient conditions. The applicant estimates the flowrate to be 6.4 scfm.

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Number: 336

### Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-0741           | #6 Raw Material Storage Tank     | NA                       | Herbicide Technical | 26,000 gallons        | 99-A-182-S1                |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. The material stored in the tank must have a true vapor pressure less than 15 kPa or 2.176 psia.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator of the equipment shall maintain records of the vapor pressure of all materials stored in the tank.

Authority for Requirement: Iowa DNR Construction Permit 99-A-182-S1

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 48

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 122

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 99-A-182-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 309, 335, 356, 357**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 309                   | EU-10-0594           | #1 Amine Salt Storage Tank       | NA                       | Herbicide Technical | 250,00 gallons        | 97-A-186-S5                |
| 335                   | EU-10-0727           | #2 Amine Salt Storage Tank       | NA                       | Herbicide Technical | 250,00 gallons        | 98-A-940-S4                |
| 356                   | EU-10-0812           | #3 Amine Salt Storage Tank       | NA                       | Herbicide Technical | 250,00 gallons        | 99-A-1077-S3               |
| 357                   | EU-10-0815           | #4 Amine Salt Storage Tank       | NA                       | Herbicide Technical | 250,00 gallons        | 99-A-1078-S3               |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The total emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 13.2 tons/yr.<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-186-S5, 98-A-940-S4,  
99-A-1077-S3, 99-A-1078-S3

<sup>(1)</sup> Total VOC emissions for EP's 306, 307, 307A, 309, 312, 313, 318, 319, 335, 338, 356, 357

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

| <b>Emission Point</b> | <b>Stack Height, (ft, from the ground)</b> | <b>Stack Opening, (inches, dia.)</b> | <b>Exhaust Flow Rate (scfm)</b> | <b>Exhaust Temperature (°F)</b> | <b>Discharge Style</b> | <b>Authority for Requirement</b> |
|-----------------------|--|--------------------------------------|---------------------------------|---------------------------------|------------------------|----------------------------------|
| 309                   | 50   | 8                                    | Natural Draft                   | 120                             | Vertical Unobstructed  | 97-A-186-S5                      |
| 335                   | 50   | 8                                    | Natural Draft                   | 105                             | Downward               | 98-A-940-S4                      |
| 356                   | 50   | 8                                    | Natural Draft                   | 122                             | Downward               | 99-A-1077-S3                     |
| 357                   | 50   | 8                                    | Natural Draft                   | 122                             | Downward               | 99-A-1078-S3                     |

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Numbers: 366 & 367

### Associated Equipment

| Emission Point | Emission Unit | Emission Unit Description | Control Equipment | Raw Material        | Rated Capacity  | Construction Permit |
|----------------|---------------|---------------------------|-------------------|---------------------|-----------------|---------------------|
| 366            | EU-10-0945    | #5 K Salt Storage Tank    | NA                | Herbicide Technical | 250,000 gallons | 01-A-1352-S1        |
| 367            | EU-10-0951    | #6 K Salt Storage Tank    | NA                | Herbicide Technical | 250,000 gallons | 01-A-1353-S1        |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. Each tank shall only store volatile organic liquids with a maximum true vapor pressure less than 3.5 kPa.
2. Each tank shall store material that contains no organic HAPs or contains organic HAP as impurities only.

Authority for Requirement: Iowa DNR Construction Permits 01-A-1352-S1, 01-A-1353-S1

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator shall keep records showing the maximum true vapor pressure of each material stored in the vessel.
2. The owner or operator shall keep records demonstrating that the only organic HAPs found in each storage vessel are as impurities only.

Authority for Requirement: Iowa DNR Construction Permits 01-A-1352-S1, 01-A-1353-S1

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 47.3

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 104

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permits 01-A-1352-S1, 01-A-1353-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Numbers: 41, 40, 43

### Associated Equipment

| Emission Point | Emission Unit | Emission Unit Description | Control Equipment | Raw Material  | Rated Capacity | Construction Permit |
|----------------|---------------|---------------------------|-------------------|---------------|----------------|---------------------|
| 41             | EU-8TK-1      | #1 Solvent Storage Tank   | NA                | Chlorobenzene | 75,000 gallons | 99-A-883-S1         |
| 40             | EU-8-2836-339 | #2 Solvent Storage Tank   | NA                | C-9 Solvent   | 75,000 gallons | NA                  |
| 43             | EU-8-2836-337 | #3 Solvent Storage Tank   | NA                | A-200 Solvent | 75,000 gallons | NA                  |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Required for EP 41 only

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A record of all materials stored in this shall be maintained. An MSDS shall be kept for all materials stored.
2. The amount of material put through this vessel over the previous month shall be recorded at the end of each month. The total amount of material put through this vessel over the previous twelve months shall also be recorded at the end of each month.
3. An estimate of the amount of VOC's emitted from this vessel over the previous month shall be recorded at the end of each month. The total amount of VOC's emitted from this vessel over the previous twelve month shall also be recorded at the end of each month.

Authority for Requirement: Iowa DNR Construction Permit 99-A-883-S1

**Emission Point Characteristics**

*Emission Point 41 shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 22
- Stack Opening, (inches, dia.): 6
- Exhaust Flow Rate (scfm): Natural Draft
- Exhaust Temperature (°F): 86
- Discharge Style: Downward
- Authority for Requirement: Iowa DNR Construction Permit 99-A-883-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 23, 25, 46**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 23                    | EU-10-2014-105       | #1 Emulsifier Tank               | NA                       | Herbicide Additive  | 15,000 gallons        | NA                         |
| 25                    | EU-10-2014-207       | #2 Emulsifier Tank               | NA                       | Herbicide Additive  | 15,000 gallons        | NA                         |
| 46                    | EU-10TK-5            | #3 Emulsifier Tank               | NA                       | Herbicide Additive  | 15,000 gallons        | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 259, 247, 257**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 259                   | EU-10TK-23           | #4 Emulsifier Tank               | NA                       | Herbicide Additive  | 25,000 gallons        | 99-A-894-S1                |
| 247                   | EU-10TK-22           | #5 Emulsifier Tank               | NA                       | Herbicide Additive  | 25,000 gallons        | 99-A-895-S1                |
| 257                   | EU-10-5039-437       | #6 Emulsifier Tank               | NA                       | Herbicide Additive  | 31,000 gallons        | 99-A-888-S1                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Reporting & Record keeping:**

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A record of all materials stored in this shall be maintained. An MSDS shall be kept for all materials stored.
2. The amount of material put through this vessel over the previous month shall be recorded at the end of each month. The total amount of material put through this vessel over the previous twelve months shall also be recorded at the end of each month.
3. An estimate of the amount of VOCs emitted from this vessel over the previous month shall be recorded at the end of each month. The total amount of VOCs emitted from this vessel over the previous twelve month shall also be recorded at the end of each month.

Authority for Requirement: Iowa DNR Construction Permit 99-A-894-S1, 99-A-985-S1, 99-A-888-S1

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

| <b>Emission Point</b> | <b>Stack Height, (ft, from the ground)</b> | <b>Stack Opening, (inches, dia.)</b> | <b>Exhaust Flow Rate (scfm)</b> | <b>Exhaust Temperature (°F)</b> | <b>Discharge Style</b> | <b>Authority for Requirement</b> |
|-----------------------|--|--------------------------------------|---------------------------------|---------------------------------|------------------------|----------------------------------|
| 259                   | 39   | 6                                    | Natural Draft                   | 122                             | Downward               | 99-A-894-S1                      |
| 247                   | 33   | 6                                    | Natural Draft                   | 122                             | Downward               | 99-A-895-S1                      |
| 257                   | 43   | 6                                    | Natural Draft                   | 86                              | Horizontal             | 99-A-888-S1                      |

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 322, 323**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 322                   | EU-10-0614           | #7 Emulsifier Tank               | NA                       | Herbicide Additive  | 26,000 gallons        | 97-A-755-S2                |
| 323                   | EU-10-0617           | #8 Emulsifier Tank               | NA                       | Herbicide Additive  | 26,000 gallons        | 97-A-756-S2                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. Additive cannot exceed 9,344,000 gallons per year in each storage tank.
2. The material stored in these tanks must have a true vapor pressure less than 15 kPa or 2.176 psia.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Records must be kept of the vapor pressure of all materials stored in each tank.
2. Records must be kept of tank throughput over a 12-month period, rolled monthly.

Authority for Requirement: Iowa DNR Construction Permits 97-A-755-S2, 97-A-756-S2

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 48

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 122

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits 97-A-755-S2, 97-A-756-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 344, 345**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 344                   | EU-10-0753           | #9 Emulsifier Tank               | NA                       | Herbicide Additive  | 25,000 gallons        | 99-A-511                   |
| 345                   | EU-10-0758           | #10 Emulsifier Tank              | NA                       | Herbicide Additive  | 25,000 gallons        | 99-A-512                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permits 99-A-511 and 99-A-512  
567 IAC 23.3(2)"d"

<sup>(1)</sup> If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 43

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (acfm): 7.4

Exhaust Temperature (°F): 122

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permits 99-A-511 and 99-A-512

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 34, 24, 26, 42, 289**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>          | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|------------------------------|-----------------------|----------------------------|
| 34                    | EU-10TK-3            | Additive Tank                    | NA                       | Herbicide Additive           | 10,000 gallons        | NA                         |
| 24                    | EU-10-2014-113       | #1 Blend Tank                    | NA                       | Herbicide Product & Premixes | 20,000 gallons        | NA                         |
| 26                    | EU-10-2014-210       | #2 Blend Tank                    | NA                       | Herbicide Product & Premixes | 20,000 gallons        | NA                         |
| 42                    | EU-10TK-26           | #3 Blend Tank                    | NA                       | Herbicide Product            | 20,000 gallons        | NA                         |
| 289                   | EU-10-581            | #5 Blend Tank                    | NA                       | Herbicide Product            | 20,000 gallons        | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 139****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10D-1             | #4 Blend Tank                    | NA                       | Herbicide Product   | 20,000 gallons        | 01-A-769                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. The owner or operator shall not formulate any materials with a maximum true vapor pressure equal to or greater than 15.0 kPa in this tank.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator shall maintain records of the maximum true vapor pressure of all materials formulated in this tank.

Authority for Requirement: Iowa DNR Construction Permit 01-A-769

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 40
- Stack Opening, (inches, dia.): 4
- Exhaust Flow Rate (scfm): Natural Draft
- Exhaust Temperature (°F): 120
- Discharge Style: Downward
- Authority for Requirement: Iowa DNR Construction Permit 01-A-769

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 260**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10TK-24           | Small Blend Tank                 | NA                       | Herbicide Product   | 2,000 gallons         | 99-A-897-S1                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 2

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): 0.022

Exhaust Temperature (°F): 104

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 99-A-897-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 258, 248, 249, 250**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 258                   | EU-10-5039-453       | #1 Product Storage Tank          | NA                       | Herbicide Product   | 33,000 gallons        | 99-A-890-S1                |
| 248                   | EU-10-5025-461       | #2 Product Storage Tank          | NA                       | Herbicide Product   | 34,000 gallons        | 99-A-891-S1                |
| 249                   | EU-10-5025-466       | #3 Product Storage Tank          | NA                       | Herbicide Product   | 34,000 gallons        | 99-A-892-S1                |
| 250                   | EU-10-5025-471       | #4 Product Storage Tank          | NA                       | Herbicide Product   | 34,000 gallons        | 99-A-893-S1                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The total emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 14 ton/yr

Authority for Requirement: Iowa DNR Construction Permits 99-A-890-S1 – 99-A-893-S1

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A record of all materials stored in each vessel shall be maintained. An MSDS shall be kept for all materials stored.
2. The amount of material put through each vessel over the previous month shall be recorded at the end of each month. The total amount of material put through each vessel over the previous twelve months shall also be recorded at the end of each month.
3. An estimate of the amount of VOC's emitted from each vessel over the previous month shall be recorded at the end of each month. The total amount of VOC's emitted from each vessel over the previous twelve month shall also be recorded at the end of each month.

Authority for Requirement: Iowa DNR Construction Permits 99-A-890-S1 – 99-A-893-S1

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 46

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 122

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permits 99-A-890-S1 – 99-A-893-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 251****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-5025-445       | #5 Product Storage Tank          | NA                       | Herbicide Product   | 45,000 gallons        | 99-A-889-S2                |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. The maximum true vapor pressure of materials stored in #5 Product Storage tank shall not exceed 3.5 kPA.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Maintain a record of the maximum vapor pressure as of all materials stored in #5 Product Storage Tank in kPA.
2. Retain Material Safety Data Sheets (MSDS) of all materials stored in #5 Product Storage Tank.
3. The amount of material put through this vessel over the previous month shall be recorded at the end of each month. The total amount of material put through this vessel over the previous twelve months shall also be recorded at the end of each month.
4. An estimate of the amount of VOCs emitted from this vessel over the previous month shall be recorded at the end of each month. The total amount of VOCs emitted from this vessel over the previous twelve month shall also be recorded at the end of each month.

Authority for Requirement: Iowa DNR Construction Permit 99-A-889-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 43
- Stack Opening, (inches, dia.): 8
- Exhaust Flow Rate (scfm): Working/Breathing Loss
- Exhaust Temperature (°F): 86
- Discharge Style: Horizontal
- Authority for Requirement: Iowa DNR Construction Permit 99-A-889-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 290**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-584            | #6 Product Storage Tank          | NA                       | Herbicide Product   | 65,000 gallons        | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 332****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-662            | #7 Product Storage Tank          | NA                       | Herbicide Product   | 62,000 gallons        | 98-A-551                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Process throughput:**

1. This tank shall only be used for the storage of Glyphosate products.

Authority for Requirement: Iowa DNR Construction Permit 98-A-551

**Reporting & Record keeping:**

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A log of all materials stored in the tank.
2. After the first 12 months of operation, determine the annual throughput for the tank on a rolling 12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 98-A-551

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 62  
Stack Opening, (inches, dia.): 6  
Exhaust Flow Rate (scfm): 20  
Exhaust Temperature (°F): 104  
Discharge Style: Downward  
Authority for Requirement: Iowa DNR Construction Permit 98-A-551

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 333, 334**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 333                   | EU-10-710            | #8 Product Storage Tank          | NA                       | Herbicide Product   | 80,000 gallons        | 98-A-623-S1                |
| 334                   | EU-10-711            | #9 Product Storage Tank          | NA                       | Herbicide Product   | 80,000 gallons        | 98-A-624-S1                |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. Each 80,000 gallon storage vessel is limited to storing materials which have a vapor pressure not exceeding 0.14 psia.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator of the equipment shall maintain records of the VOC liquid stored and the maximum vapor pressure of the liquid.

Authority for Requirement: Iowa DNR Construction Permits 98-A-623-S1 and 98-A-624-S1

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 35

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 140

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permits 98-A-623-S1 and 98-A-624-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 369****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-180            | #10 Product Storage Tank         | NA                       | Herbicide Product   | 45,000 gallons        | 02-A-220                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. This tank shall only store volatile organic liquids with a maximum true vapor pressure less than 3.5 kPa.
2. This tank shall not be used in any "pesticide active ingredient manufacturing process unit", as defined in 40 CFR 63.1361.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator shall keep records showing the maximum true vapor pressure of the materials stored in the vessel.

Authority for Requirement: Iowa DNR Construction Permit 02-A-220

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 54.3
- Stack Opening, (inches, dia.): 6
- Exhaust Flow Rate (scfm): Natural Draft
- Exhaust Temperature (°F): 122
- Discharge Style: Downward
- Authority for Requirement: Iowa DNR Construction Permit 02-A-220

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 202, 137, 172, 173, 144, 145, 207, 208**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b>       | <b>Control Equipment</b> | <b>Raw Material</b>                                  | <b>Rated Capacity</b>                        | <b>Construction Permit</b> |
|-----------------------|----------------------|--|--------------------------|--|--|----------------------------|
| 202                   | EU-10-3773-410       | High Speed Jugging                     | NA                       | Herbicide Product                                    | 2100 gal./hr                                 | NA                         |
| 137                   | EU-10FN-22           | Spent Product Filter Drying (Jugging)  | NA                       | Herbicide Product                                    | 1 drum/day                                   | NA                         |
| 172                   | EU-10FN-2            | #1 Drum Filling                        | NA                       | Herbicide Product                                    | 3425 gal./hr                                 | NA                         |
| 173                   | EU-10FN-3-1          | Spent Product Filter Drying (Drumming) | NA                       | Herbicide Product                                    | 1 drum/day                                   | NA                         |
|                       | EU-10FN-3-2          | Product Shuttle Filling                | NA                       | Herbicide Product                                    | 2083 gal./hr                                 |                            |
| 144                   | EU-8BL-1             | #1 South Bulk Loading                  | NA                       | Glyphosate Product, Acetanilide Product              | 5000 gal./hr,<br>4201 gal./hr                | NA                         |
| 145                   | EU-8BL-2             | #2 South Bulk Loading                  | NA                       | Herbicide Product                                    | 5000 gal./hr                                 | NA                         |
| 207                   | EU-10BL-1            | Bulk Rail Loading                      | NA                       | Glyphosate Product, Acetanilide Product              | 5000 gal./hr,<br>2283 gal./hr                | NA                         |
| 208                   | EU-10BL-2            | Bulk Truck Loading                     | NA                       | Glyphosate Product, Acetanilide Product, Waste Water | 5000 gal./hr,<br>2283 gal./hr,<br>40 gal./hr | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 329**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>          | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|------------------------------|-----------------------|----------------------------|
| EU-10BL-3            | Bulk Truck Loading               | NA                       | Herbicide Product/<br>Premix | 685 gal/hr.           | 98-A-002                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. The throughput of this source shall not exceed 6,000,000 gallons of total material per 12-month period.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Throughput of all materials.
2. Monthly material throughput in gal/month for all materials.
3. During the initial 12 months of operation, cumulative material throughput shall be determined each month of operation.
4. After the initial 12 months of operation, annual material throughput shall be determined on a rolling twelve-month basis each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 98-A-002

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 10  
Stack Opening, (inches, dia.): 20  
Exhaust Flow Rate (scfm): NA  
Exhaust Temperature (°F): Ambient  
Discharge Style: NA  
Authority for Requirement: Iowa DNR Construction Permit 98-A-002

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 359****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10-0897           | Glyphosate Salt Rail Loading*    | NA                       | Herbicide Technical | 6112 gal./hr.         | 01-A-559                   |

\* 4 Amine Storage Tanks: 250,000 gallons each

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Maintain records of the volatile organic liquid stored, the period of storage, and the maximum vapor pressure of the liquid.

Authority for Requirement: Iowa DNR Construction Permit 01-A-559

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 10

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 36.5

Exhaust Temperature (°F): 122

Discharge Style: Vertical w/o rain cap or with Unobstructing rain cap

Authority for Requirement: Iowa DNR Construction Permit 01-A-559

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 370**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-10BL-4            | Bulk Product Rail Loading        | NA                       | Herbicide Product   | 6667 gal./hr.         | 02-A-221                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 20

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): Natural Vent

Exhaust Temperature (°F): 122

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-221

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 241**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>  | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|----------------------|-----------------------|----------------------------|
| EU-10TK-21           | Wastewater Tank                  | NA                       | Herbicide Wastewater | 20,000 gallons        | 99-A-896                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 29

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): 0.51

Exhaust Temperature (°F): 86

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 99-A-896

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: 27, 28**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b>             | <b>Control Equipment</b> | <b>Raw Material</b>                       | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|--|--------------------------|---|-----------------------|----------------------------|
| 27                    | EU-10FUG-3           | Liquid Formulations Blending (Non-captured)  | NA                       | Herbicide Products, Solvents, Emulsifiers | NA                    | NA                         |
| 28                    | EU-10FUG-1           | Liquid Formulations Packaging (Non-captured) | NA                       | Herbicide Products                        | NA                    | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Flowable Formulations Equipment List

| <b>Emission Point Number</b> | <b>Emission Unit Number</b> | <b>Emission Unit Description</b>        | <b>IDNR Construction Permit Number</b> |
|------------------------------|-----------------------------|---|--|
| 181                          | EU-14TK-350                 | Raw Material Storage Tank               | 99-A-264                               |
| 182                          | EU-14TK-33                  | Raw Material Storage Tank               | 99-A-513                               |
| 299                          | EU-14TK-38                  | Raw Material Storage Tank               | 99-A-514                               |
| 346                          |                             |   |  |
| 310                          | EU-14TK-356                 | PAPI Storage Tank                       | 96-A-1263                              |
| 347                          | EU-14-464                   | Isocyanate Storage Tank                 | 99-A-515                               |
| 361                          | EU-14-0828                  | Herbicide Additive Storage Tank         | 01-A-826                               |
| 303                          | EU-14TK-26                  | Herbicide Additive/Product Storage Tank | NA                                     |
| 311                          | EU-14TK-300                 | PAPI Feed Tank                          | 96-A-1264                              |
| 326                          | EU-14TK-306                 | Isocyanate Feed Tank                    | 97-A-860                               |
| 272                          | EU-14TK-31                  | Residence Time Tank                     | 93-A-138                               |
| 301                          | EU-14TK-31                  | Residence Time Tank                     | NA                                     |
|                              | EU-14TK-280                 | Product Surge Tank                      | NA                                     |
| 187                          | EU-14TK-101                 | Product Storage Tank                    | 96-A-267-S1                            |
| 188                          | EU-14TK-102                 | Product Storage Tank                    | 96-A-268-S1                            |
| 211                          | EU-14TK-390                 | Product Storage Tank                    | 96-A-265-S1                            |
| 212                          | EU-14TK-391                 | Product Storage Tank                    | 96-A-266-S1                            |
| 300                          | EU-14TK-101                 | Product Storage Tank                    | NA                                     |
|                              | EU-14TK-102                 | Product Storage Tank                    |  |
|                              | EU-14TK-390                 | Product Storage Tank                    |  |
|                              | EU-14TK-391                 | Product Storage Tank                    |  |
| 216                          | EU-14TK-32                  | Premix Tank                             | 86-A-019-S5                            |
|                              | EU-14TK-36                  | Formulation Tank                        |  |
|                              | EU-14TK-751                 | Formulation Tank                        |  |
|                              | EU-14-186                   | East Supersack Unloading                |  |
|                              | EU-14-187                   | West Supersack Unloading                |  |
|                              | EU-14-763                   | North Supersack Unloading               |  |
| 339                          | EU-14TK-13                  | West Stabilizer Tank                    | 99-A-395                               |
|                              | EU-14TK-21                  | East Stabilizer Tank                    |  |
| 174                          | EU-14D-1                    | Flaked Pesticide Handling               | 81-A-076                               |
| 186                          | EU-14BL-1                   | East Bulk Herbicide Loading             | 99-A-898                               |
| 171                          | EU-14BL-2                   | West Bulk Herbicide Loading             | 99-A-899                               |
| 363                          | EU-14BL-3                   | Bulk Truck Loading/Unloading            | 02-A-902                               |
| 368                          | EU-14-875                   | Rail Unloading/Product Rail Loading     | 02-A-903                               |
| 389                          | EU-14-0899                  | Bulk Rail Loading                       | 03-A-312                               |
| 394                          | EU-14-0880                  | Jug Dumpback                            | 04-A-957                               |
| 395                          | EU-14-0975                  | Seed Corn Handling                      | 06-A-1025-S1                           |
| 159                          | EU-14-FUG-1                 | Flowables (Non-captured)                | NA                                     |

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**Emission Point ID Number: 181****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>                        | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|--|-----------------------|----------------------------|
| EU-14TK-350          | Raw Material Storage Tank        | NA                       | Herbicide Technical/<br>Herbicide Premixes | 20,000 gallons        | 96-A-264                   |

---

**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Volatile organic Compounds (VOC's)

Emission Limit(s): 0.42 lb/hr, 1.85 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 96-A-264

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. This tank is limited to chemicals no more volatile than monochlorobenzene (MCB).

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Keep records on all volatile organic liquids (VOL's) stored in this tank and its maximum true vapor pressure.

Authority for Requirement: Iowa DNR Construction Permit 96-A-264

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

- Stack Height, (ft, from the ground): 23.5
- Stack Opening, (inches, dia.): 4
- Exhaust Flow Rate (scfm): NA
- Exhaust Temperature (°F): 120
- Discharge Style: NA
- Authority for Requirement: Iowa DNR Construction Permit 96-A-264

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

- Agency Approved Operation & Maintenance Plan Required?**      Yes  No
- Facility Maintained Operation & Maintenance Plan Required?**      Yes  No
- Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 182**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-14TK-33           | Raw Material Storage Tank        | NA                       | Herbicide Additive  | 16,000 gallons        | 99-A-513                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 99-A-513  
567 IAC 23.3(2)"d"

<sup>(1)</sup> If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 32

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (acfm): 6.7

Exhaust Temperature (°F): 122

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 99-A-513

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Numbers: 299 & 346

### Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>                   | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--|---------------------|-----------------------|----------------------------|
| EU-14TK-38           | Raw Material Storage Tank        | CE-14CS-3:<br>Carbon Filtration System #3* | Herbicide Technical | 35,000 gallons        | 99-A-514                   |

\* Associated with EP 299 only

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from each emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 99-A-514  
567 IAC 23.3(2)"d"

<sup>(1)</sup> If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 53

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (acfm): 8.4

Exhaust Temperature (°F): 122

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 99-A-514

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 310****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>  | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|----------------------|-----------------------|----------------------------|
| EU-14TK-356          | PAPI Storage Tank                | NA                       | Polymeric Isocyanate | 11,000 gallons        | 96-A-1263                  |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Reporting & Record keeping:**

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A Material Safety Data Sheet (MSDS) for all chemicals stored in the tank.
2. After the first twelve (12) months of operation, determine the annual throughput of material on a rolling 12 month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1263

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 28

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): 0.2

Exhaust Temperature (°F): 122

Discharge Style: Vertical w/ raincap

Authority for Requirement: Iowa DNR Construction Permit 96-A-1263

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 347**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-14-464            | Isocyanate Storage Tank          | NA                       | Isocyanate Blend    | 12,000 gallons        | 99-A-515                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 99-A-515  
567 IAC 23.3(2)"d"

<sup>(1)</sup> If visible emissions are observed other than start-up, shut-down, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 28

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (acfm): 0.11

Exhaust Temperature (°F): Ambient

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 99-A-515

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 361****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-14-0828           | Herbicide Additive Storage Tank  | NA                       | Herbicide Additive  | 31,000 gallons        | 01-A-826                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. Organic components stored in this tank shall have a maximum vapor pressure of 0.1 psia total.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator shall keep records of the total vapor pressure of all organic components stored in this tank.

Authority for Requirement: Iowa DNR Construction Permit 01-A-826

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 35

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 85

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 01-A-826

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 303**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b>            | <b>Control Equipment</b> | <b>Raw Material</b>                      | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|---|--------------------------|--|-----------------------|----------------------------|
| EU-14TK-26           | Herbicide Additive/<br>Product Storage Tank | NA                       | Herbicide Additive/<br>Herbicide Product | 20,000 gallons        | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Number: 311

### Associated Equipment

| Emission Unit | Emission Unit Description | Control Equipment | Raw Material         | Rated Capacity | Construction Permit |
|---------------|---------------------------|-------------------|----------------------|----------------|---------------------|
| EU-14TK-300   | PAPI Feed Tank            | NA                | Polymeric Isocyanate | 400 gallons    | 96-A-1264           |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

#### Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A Material Safety Data Sheet (MSDS) for all chemicals stored in the tank.
2. After the first twelve (12) months of operation, determine the annual throughput of material on a rolling 12 month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 96-A-1264

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 20

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): 0.2

Exhaust Temperature (°F): 122

Discharge Style: Vertical w/ raincap

Authority for Requirement: Iowa DNR Construction Permit 96-A-1264

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 326****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| EU-14TK-306          | Isocyanate Feed Tank             | NA                       | Isocyanate Blend    | 500 gallons           | 97-A-860                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Reporting & Record keeping:**

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. A record of the throughput of this tank shall be recorded at the end of each month. This record should include the throughput of the last month and the total throughput of the previous twelve (12) months.

Authority for Requirement: Iowa DNR Construction Permit 97-A-860

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): NA - Displacement

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-860

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 272**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>   | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|-----------------------|-----------------------|----------------------------|
| EU-14TK-31           | Residence Time Tank              | NA                       | Herbicide Formulation | 1,200 gallons         | 93-A-138                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 301**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>                   | <b>Raw Material</b>   | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--|-----------------------|-----------------------|----------------------------|
| EU-14TK-31*          | Residence Time Tank              | CE-14-CS-6:<br>Carbon Filtration System #6 | Herbicide Formulation | 1,200 gallons         | NA                         |
| EU-14TK-280          | Product Surge Tank               |  | Herbicide Product     | 1,500 gallons         | NA                         |

\* EU-14-TK-31 is primarily vented through EP 272. EP 301 is only used during formulation of a specific product.

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Numbers: 187, 188, 211, 212

### Associated Equipment

| Emission Point | Emission Unit | Emission Unit Description | Control Equipment | Raw Material      | Rated Capacity | Construction Permit |
|----------------|---------------|---------------------------|-------------------|-------------------|----------------|---------------------|
| 187            | EU-14TK-101   | Product Storage Tank      | NA                | Herbicide Product | 54,000 gallons | 96-A-267-S1         |
| 188            | EU-14TK-102   | Product Storage Tank      | NA                | Herbicide Product | 54,000 gallons | 96-A-268-S1         |
| 211            | EU-14TK-390   | Product Storage Tank      | NA                | Herbicide Product | 20,000 gallons | 96-A-265-S1         |
| 212            | EU-14TK-391   | Product Storage Tank      | NA                | Herbicide Product | 20,000 gallons | 96-A-266-S1         |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. These tanks are limited to chemicals no more volatile than monochlorobenzene (MCB).
2. Throughput for these four tanks is limited to 30,000,000 gallons per twelve month rolling period, determined as the total volume of products formulated and stored in this group of tanks.

Authority for Requirement: Iowa DNR Construction Permits 96-A-265-S1 – 96-A-268-S1

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. Records shall be kept on all volatile organic liquids (VOL's) stored in these tanks and their maximum true vapor pressure.
2. The monthly throughput of these four tanks shall be recorded for each month of operation, determined as the total volume of products formulated and stored in the group of tanks.
3. The twelve month rolling total of the throughput of this group of tanks shall be updated and recorded monthly.

Authority for Requirement: Iowa DNR Construction Permits 96-A-265-S1 – 96-A-268-S1

**Emission Point Characteristics**

*These emission points shall conform to the specifications listed below.*

**EP's 187 & 188**

Stack Height, (ft, from the ground): 32

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): NA – Natural Draft

Exhaust Temperature (°F): 95

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permits 96-A-267-S1 & 96-A-268-S1

**EP's 211 & 212**

Stack Height, (ft, from the ground): 24.75

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): NA – Natural Draft

Exhaust Temperature (°F): 95

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permits 96-A-265-S1 & 96-A-266-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 300\***

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>               | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--|---------------------|-----------------------|----------------------------|
| EU-14TK-101          | Product Storage Tank             | CE-14CS-5: Carbon Filtration System #5 | Herbicide Product   | 54,000 gallons        | NA                         |
| EU-14TK-102          | Product Storage Tank             |  | Herbicide Product   | 54,000 gallons        | NA                         |
| EU-14TK-390          | Product Storage Tank             |  | Herbicide Product   | 20,000 gallons        | NA                         |
| EU-14TK-391          | Product Storage Tank             |  | Herbicide Product   | 20,000 gallons        | NA                         |

\* These emission units are only vented through EP 300 during production of products containing clomazone

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: 216**

Associated Equipment

| <b>Emission Unit</b>       | <b>Emission Unit Description</b> | <b>Control Equipment</b>             | <b>Raw Material</b>                                  | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------------|----------------------------------|--------------------------------------|--|-----------------------|----------------------------|
| EU-14TK-32 <sup>(1)</sup>  | Premix Tank                      | CE-14D-4:<br>Atrazine Dust Collector | Solid Technical Herbicide/<br>Herbicide Formulations | 4,600 gallons         | 86-A-019-S5                |
| EU-14TK-36 <sup>(2)</sup>  | Formulation Tank                 |                                      | Solid Technical Herbicide/<br>Herbicide Formulations | 1,200 gallons         |                            |
| EU-14TK-751 <sup>(2)</sup> | Formulation Tank                 |                                      | Solid Technical Herbicide/<br>Herbicide Formulations | 1,200 gallons         |                            |
| EU-14-186                  | East Supersack Unloading         |                                      | Solid Technical Herbicide                            | 4,000 lb/hr.          |                            |
| EU-14-187                  | West Supersack Unloading         |                                      | Solid Technical Herbicide                            | 4,000 lb/hr.          |                            |
| EU-14-763                  | North Supersack Unloading        |                                      | Solid Technical Herbicide                            | 4,000 lb/hr.          |                            |
| EU-14RV                    | Rotary Valves                    |                                      | Atrazine   | 0.07 lb/hr .(each)    |                            |

<sup>(1)</sup> This emission unit may be vented through EP 321 during production of specific products. When this emission point is used, the emissions from this unit are considered to be an "insignificant activity" (as defined in 567 IAC 22.103).

<sup>(2)</sup> These emission units may be vented through EP 302 during production of products containing clomazone. When this emission point is used, the emissions from these units are considered to be "insignificant activities" (as defined in 567 IAC 22.103).

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5  
567 IAC 23.3(2)"d"

Pollutant: PM-10

Emission Limit(s): 1.23 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5

Pollutant: Particulate Matter  
Emission Limit(s): 1.23 lb/hr  
Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5

Pollutant: Volatile Organic Compounds (VOC's)  
Emission Limit(s): 4.38 ton/yr<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5

<sup>(1)</sup> An exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>(2)</sup> Standard is a 12-month rolling total.

### **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Control equipment parameters:

1. The owner or operator shall inspect and maintain the control equipment according to manufacturer's recommendations.

Reporting & Record keeping:

*Records shall be kept on site for at least five years and shall be available for inspection by the Department.*

1. The owner or operator shall keep records of control equipment inspections and maintenance.

Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 29

Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (scfm): 11,000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 86-A-019-S5

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

# **Compliance Assurance Monitoring (CAM) Plan**

## **Atrazine Dust Collector**

### **EP 216**

#### Baghouse Parameters

- Associated Emission Unit: EU-14TK-32, EU-14TK-36, EU-14TK-751, EU-14-186, EU-14-187, EU-14-763, EU-14RV
- Associated Control Equipment No: CE-14D-4
- Associated Emission Point: 216
- Pollutants Controlled: PM, PM<sub>10</sub>

#### **Applicable Requirements**

PM emission limit: 1.23lb/hr

Authority for Requirement: IDNR Permit No 86-A-019-S5

PM-10 emission limit: 1.23lb/hr

Authority for Requirement: IDNR Permit No 86-A-019-S5

Opacity limit: 40%

Authority for Requirement: 567 IAC 23.3(2)"d" and IDNR Permit No 86-A-019-S5

#### ***Monitoring Approach***

#### **Excursion from Compliance Indicators**

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range for longer than five (5) minutes. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions will begin as soon as practicable, but no later than eight hours from the observation of the excursion or equipment will be shutdown.

#### **Indicator**

- Continuous differential pressure readings.
- No visible emission observations, as required below.

#### **Compliance Indicator Ranges**

- Differential Pressure
  - Acceptable indicator range: delta Pressure of 0.5" to 8" of water, except before and after startup and shutdown of equipment.
- No Visible Emissions
  - Only during non-operational periods of the continuous parameter monitoring system (CPMS).

#### **Monitoring Methods**

- Continuously
  - Differential pressure (dP) readings will be monitored continuously using a CPMS during the normal operation of the unit. During any shutdown of the CPMS, Monsanto will conduct a visible emission observation directly following the shutdown and continue weekly until CPMS is operational again.
- Semiannually
  - Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
  - Check the cleaning sequence of the baghouse. Sequence inspection will consist of verifying that automated air pulsing is ongoing
  - Check the hopper functions and performance.

## ***Performance Criteria***

### **Data Representativeness**

A differential pressure not within the acceptable indicator range may signify reduced baghouse performance, structural stress or failure, or a partially clogged system that may lead to an increase in particulate emissions.

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

### **Record Keeping and Reporting (Verification of Operational Status)**

- Monsanto will maintain records of the following:
  - Record of differential pressure.
  - Weekly visible emissions evaluations, if required, and any actions resulting from observation
  - Semiannual required inspections and maintenance.
  - Record any excursions and corrective actions resulting from compliance indicators and inspections and maintenance.
- Records will be kept for at least five years and be available upon request.

### **Quality Control**

- The filter equipment will be maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept.

### **Data Collection Procedures**

- Electronic or hard copy of differential pressure readings.
- Manual log entries are made based on the observation (or not) of visible emissions, if required.
- Maintenance personnel record all maintenance/inspections performed on the baghouse and actions resulting from the inspections.

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## Emission Point ID Number: 339

### Associated Equipment

| Emission Unit | Emission Unit Description | Control Equipment          | Raw Material             | Rated Capacity | Construction Permit |
|---------------|---------------------------|----------------------------|--------------------------|----------------|---------------------|
| EU-14TK-13    | West Stabilizer Tank      | CE-14-0366: Dust Collector | Solid Herbicide Additive | 13 batches/day | 99-A-395            |
| EU-14TK-21    | East Stabilizer Tank      |                            | Solid Herbicide Additive | 13 batches/day |                     |

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 99-A-395  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 99-A-395  
567 IAC 23.3(2)"a"

<sup>(1)</sup> An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 55

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (acfm): 3,000

Exhaust Temperature (°F): Ambient

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 99-A-395

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

# **Compliance Assurance Monitoring (CAM) Plan**

## **Stabilizer Tank Dust Collector**

### **EP 339**

#### **Baghouse Parameters**

- Associated Emission Unit: 14TK-13, 14TK-21
- Associated Control Equipment No: CE-14-0366
- Associated Emission Point: 339
- Pollutants Controlled: PM, PM<sub>10</sub>

#### **Applicable Requirements**

PM emission limit: 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a" and IDNR Permit No 99-A-395

Opacity limit: 40%

Authority for Requirement: 567 IAC 23.3(2)"d" and IDNR Permit No 99-A-395

#### ***Monitoring Approach***

#### **Excursion from Compliance Indicators**

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range for longer than five (5) minutes. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions will begin as soon as practicable, but no later than eight hours from the observation of the excursion or equipment will be shutdown.

#### **Indicator**

- Continuous differential pressure readings.
- No visible emission observations, as required below.

#### **Compliance Indicator Ranges**

- Differential Pressure
  - Acceptable indicator range: delta Pressure of 0.25" to 8" of water, except before and after startup and shutdown of equipment.
- No Visible Emissions
  - Only during non-operational periods of the continuous parameter monitoring system (CPMS).

#### **Monitoring Methods**

- Continuously
  - Differential pressure (dP) readings will be monitored continuously using a CPMS during the normal operation of the unit. During any shutdown of the CPMS, Monsanto will conduct a visible emission observation directly following the shutdown and continue weekly until CPMS is operational again.
- Semiannually
  - Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
  - Check the cleaning sequence of the baghouse. Sequence inspection will consist of verifying that automated air pulsing is ongoing
  - Check the hopper functions and performance.

## ***Performance Criteria***

### **Data Representativeness**

A differential pressure not within the acceptable indicator range may signify reduced baghouse performance, structural stress or failure, or a partially clogged system that may lead to an increase in particulate emissions.

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

### **Record Keeping and Reporting (Verification of Operational Status)**

- Monsanto will maintain records of the following:
  - Record of differential pressure.
  - Weekly visible emissions evaluations, if required, and any actions resulting from observation
  - Semiannual required inspections and maintenance.
  - Record any excursions and corrective actions resulting from compliance indicators and inspections and maintenance.
- Records will be kept for at least five years and be available upon request.

### **Quality Control**

- The filter equipment will be maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept.

### **Data Collection Procedures**

- Electronic or hard copy of differential pressure readings.
- Manual log entries are made based on the observation (or not) of visible emissions, if required.
- Maintenance personnel record all maintenance/inspections performed on the baghouse and actions resulting from the inspections.

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**Emission Point ID Number: 174**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>  | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|---------------------------|---------------------|-----------------------|----------------------------|
| EU-14D-1             | Flaked Pesticide Handling        | CE-14D-1 : Dust Collector | Solid Herbicide     | 12,000 lb/hr.         | 81-A-076                   |

---

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 17.8 lb/hr\*

Authority for Requirement: Iowa DNR Construction Permit 81-A-076

567 IAC 23.3(2)"a"

\* Based on a process weight rate of 18,000 lb/hr.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

# Compliance Assurance Monitoring (CAM) Plan

## Flaker Dust Collector

### EP 174

#### Baghouse Parameters

- Associated Emission Unit: EU-14D-1
- Associated Control Equipment No: CE-14D-1
- Associated Emission Point: 174
- Pollutants Controlled: PM, PM<sub>10</sub>

#### Applicable Requirements

PM emission limit: 17.8 lb/hr

Authority for Requirement: 567 IAC 23.3(2)"a" and IDNR Permit No 81-A-076

Opacity limit: 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

#### *Monitoring Approach*

#### Excursion from Compliance Indicators

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range for longer than five (5) minutes. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions will begin as soon as practicable, but no later than eight hours from the observation of the excursion or equipment will be shutdown.

#### Indicator

- Continuous differential pressure readings.
- No visible emission observations, as required below.

#### Compliance Indicator Ranges

- Differential Pressure
  - Acceptable indicator range: delta Pressure of 0.5" to 8" of water, except before and after startup and shutdown of equipment.
- No Visible Emissions
  - Only during non-operational periods of the continuous parameter monitoring system (CPMS).

#### Monitoring Methods

- Continuously
  - Differential pressure (dP) readings will be monitored continuously using a CPMS during the normal operation of the unit. During any shutdown of the CPMS, Monsanto will conduct a visible emission observation directly following the shutdown and continue weekly until CPMS is operational again.
- Semiannually
  - Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
  - Check the cleaning sequence of the baghouse. Sequence inspection will consist of verifying that automated air pulsing is ongoing
  - Check the hopper functions and performance.

## ***Performance Criteria***

### **Data Representativeness**

A differential pressure not within the acceptable indicator range may signify reduced baghouse performance, structural stress or failure, or a partially clogged system that may lead to an increase in particulate emissions.

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

### **Record Keeping and Reporting (Verification of Operational Status)**

- Monsanto will maintain records of the following:
  - Record of differential pressure.
  - Weekly visible emissions evaluations, if required, and any actions resulting from observation
  - Semiannual required inspections and maintenance.
  - Record any excursions and corrective actions resulting from compliance indicators and inspections and maintenance.
- Records will be kept for at least five years and be available upon request.

### **Quality Control**

- The filter equipment will be maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept.

### **Data Collection Procedures**

- Electronic or hard copy of differential pressure readings.
- Manual log entries are made based on the observation (or not) of visible emissions, if required.
- Maintenance personnel record all maintenance/inspections performed on the baghouse and actions resulting from the inspections.

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**Emission Point ID Numbers: 186, 171**

Associated Equipment

| <b>Emission Point</b> | <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|-----------------------|----------------------|----------------------------------|--------------------------|---------------------|-----------------------|----------------------------|
| 186                   | EU-14BL-1            | East Bulk Herbicide Loading      | NA                       | Herbicide Product   | 3417 gal/hr.          | 99-A-898                   |
| 171                   | EU-14BL-2            | West Bulk Herbicide Loading      | NA                       | Herbicide Product   | 3417 gal/hr.          | 99-A-899                   |

---

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

There are no applicable emission limits for these emission points at this time.

**Emission Point Characteristics**

*Each emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 12

Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (scfm): 3.1

Exhaust Temperature (°F): 77

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permits 99-A-898 & 99-A-899

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Number: 363

### Associated Equipment

| Emission Unit | Emission Unit Description    | Control Equipment | Raw Material      | Rated Capacity    | Construction Permit |
|---------------|------------------------------|-------------------|-------------------|-------------------|---------------------|
| EU-14BL-3     | Bulk Truck Loading/Unloading | NA                | Herbicide Product | 5,000 gallons/hr. | 02-A-902            |

---

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 02-A-902  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 02-A-902  
567 IAC 23.3(2)"a"

<sup>(1)</sup> An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 10

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 10 (when filling)

Exhaust Temperature (°F): 113

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-902

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 368****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b>        | <b>Control Equipment</b> | <b>Raw Material</b>  | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|---|--------------------------|----------------------|-----------------------|----------------------------|
| EU-14-875            | Rail Unloading/<br>Product Rail Loading | NA                       | Herbicide<br>Product | 4,167 gallons/hr.     | 02-A-903                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 02-A-903  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 02-A-903  
567 IAC 23.3(2)"a"

<sup>(1)</sup> An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 20

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 7 (when filling)

Exhaust Temperature (°F): 113

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 02-A-903

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 389**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>                   | <b>Rated Capacity</b>         | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---------------------------------------|-------------------------------|----------------------------|
| EU-14-0899           | Bulk Rail Loading                | NA                       | Process Rinsewater, Herbicide Product | 114 gal/hr.,<br>3,425 gal/hr. | 03-A-312                   |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 20

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 7

Exhaust Temperature (°F): 113

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-312

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 394****Associated Equipment**

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>  | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|--|-----------------------|----------------------------|
| EU-14-0880           | Jug Dumpback                     | NA                       | Machete 600,<br>Harness unsafened,<br>Harness US,<br>Machete 300 | 300 gal/hr.           | 04-A-957                   |

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission point at this time.

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 50

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): 8,900

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 04-A-957

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: 395**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>   | <b>Raw Material</b> | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|----------------------------|---------------------|-----------------------|----------------------------|
| EU-14-0975           | Seed Corn Handling               | CE-14-0975: Dust Collector | Seed Corn           | 36 tons/hr.           | 06-A-1025-S1               |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): No Visible Emissions

Authority for Requirement: Iowa DNR Construction Permit 06-A-1025-S1  
567 IAC 23.3(2)"d"

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.18 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 06-A-1025-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.18 lb/hr., 0.1 gr./dscf

Authority for Requirement: Iowa DNR Construction Permit 06-A-1025-S1  
567 IAC 23.3(2)"a"

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 12

Stack Opening, (inches): 10.5 x 21

Exhaust Flow Rate (scfm): 2,100

Exhaust Temperature (°F): Ambient

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 06-A-1025-S1

The following equipment is associated with this emission point:

|                                    |   |
|------------------------------------|---|
| De-bagger (36 tons/hour)           | Bag Conveyor (20 bags/minute)             |
| Screw Conveyor (1500 bushels/hour) | Bag Baler (20 bags/minute)                |
| Elevator (2500 bushels/hour)       | Seed Pack Unloading Hopper (36 tons/hour) |
| Storage Bin (5000 bushels)         |   |

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

# Compliance Assurance Monitoring (CAM) Plan

## Seed Corn Dust Collector

### EP 395

#### Baghouse Parameters

- Associated Emission Unit: EU-14-0975
- Associated Control Equipment No: CE-14-0975
- Associated Emission Point: 395
- Pollutants Controlled: PM, PM<sub>10</sub>

#### Applicable Requirements

PM emission limit: 0.1 gr/dscf, 0.18lb/hr

Authority for Requirement: 567 IAC 23.3(2)"a" and IDNR Permit No 06-A-1025-S1

PM<sub>10</sub> emission limit: 0.18lb/hr

Authority for Requirement: IDNR Permit No 06-A-1025-S1

Opacity limit: No Visible Emissions

Authority for Requirement: 567 IAC 23.3(2)"d" and IDNR Permit No 06-A-1025-S1

#### *Monitoring Approach*

#### Excursion from Compliance Indicators

- An excursion occurs when an observed compliance indicator is outside of its defined acceptable indicator range for longer than five (5) minutes. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions will begin as soon as practicable, but no later than eight hours from the observation of the excursion or equipment will be shutdown.

#### Indicator

- Continuous differential pressure readings.
- No visible emission observations, as required below.

#### Compliance Indicator Ranges

- Differential Pressure
  - Acceptable indicator range: delta Pressure of 0.3" to 5" of water, except before and after startup and shutdown of equipment.
- No Visible Emissions
  - Only during non-operational periods of the continuous parameter monitoring system (CPMS).

#### Monitoring Methods

- Continuously
  - Differential pressure (dP) readings will be monitored continuously using a CPMS during the normal operation of the unit. During any shutdown of the CPMS, Monsanto will conduct a visible emission observation directly following the shutdown and continue weekly until CPMS is operational again.
- Semiannually
  - Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
  - Check the cleaning sequence of the baghouse. Sequence inspection will consist of verifying that automated air pulsing is ongoing
  - Check the hopper functions and performance.

## ***Performance Criteria***

### **Data Representativeness**

A differential pressure not within the acceptable indicator range may signify reduced baghouse performance, structural stress or failure, or a partially clogged system that may lead to an increase in particulate emissions.

An observation of visible emissions could indicate a decrease in the performance of the dust collector and potentially an increase in particulate emissions.

### **Record Keeping and Reporting (Verification of Operational Status)**

- Monsanto will maintain records of the following:
  - Record of differential pressure.
  - Weekly visible emissions evaluations, if required, and any actions resulting from observation
  - Semiannual required inspections and maintenance.
  - Record any excursions and corrective actions resulting from compliance indicators and inspections and maintenance.
- Records will be kept for at least five years and be available upon request.

### **Quality Control**

- The filter equipment will be maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept.

### **Data Collection Procedures**

- Electronic or hard copy of differential pressure readings.
- Manual log entries are made based on the observation (or not) of visible emissions, if required.
- Maintenance personnel record all maintenance/inspections performed on the baghouse and actions resulting from the inspections.

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**Emission Point ID Number: 159**

Associated Equipment

| <b>Emission Unit</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material</b>                               | <b>Rated Capacity</b> | <b>Construction Permit</b> |
|----------------------|----------------------------------|--------------------------|---|-----------------------|----------------------------|
| EU-14-FUG-1          | Flowables (Non-captured)         | NA                       | Solid Herbicide Technical/<br>Herbicide Additives | NA                    | NA                         |

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**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 0.1 gr./dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

### G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

### G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance

schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

**G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

**G6. Annual Fee**

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

### **G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

### **G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

### **G9. General Maintenance and Repair Duties**

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

### **G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:

- a. The date, place and time of sampling or measurements
- b. The date the analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses; and
- f. The operating conditions as existing at the time of sampling or measurement.
- g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)

2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

- a. Comply with all terms and conditions of this permit specific to each alternative scenario.
- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

**G11. Evidence used in establishing that a violation has or is occurring.**

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

- a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
- b. Compliance test methods specified in 567 Chapter 25; or
- c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- a. Any monitoring or testing methods provided in these rules; or
- b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

**G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

**G13. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

**G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An

expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

a. **Oral Reporting of Excess Emissions.** An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. **Written Reporting of Excess Emissions.** A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. **Emergency Defense for Excess Emissions.** For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an

action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

#### **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

#### **G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

#### **G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act.
- e. The changes comply with all applicable requirements.
- f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
  - i. A brief description of the change within the permitted facility,
  - ii. The date on which the change will occur,
  - iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade

v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.

vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and

vii. Any permit term or condition no longer applicable as a result of the change.

*567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

#### **G18. Duty to Modify a Title V Permit**

##### 1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

##### 2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or

other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. 567 IAC 22.111-567 IAC 22.113 The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.105(1)"a"(4)

#### **G19. Duty to Obtain Construction Permits**

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. 567 IAC 22.1(1)

## **G20. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations, training fires and controlled burning of a demolished building. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

## **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

## **G22. Acid Rain (Title IV) Emissions Allowances**

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

## **G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

#### **G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- a. Such applicable requirements are included and are specifically identified in the permit; or
- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

- a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
- d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

#### **G26. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

#### **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

#### **G28. Transferability**

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

#### **G29. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

#### **G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the

form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

**G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. *567 IAC 26.1(1)*

**G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits  
EPA Region 7  
Air Permits and Compliance Branch  
901 N. 5<sup>th</sup> Street  
Kansas City, KS 66101  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

**Field Office 1**

909 West Main – Suite 4  
Manchester, IA 52057  
(563) 927-2640

**Field Office 2**

2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**

401 SW 7<sup>th</sup> Street, Suite I  
Des Moines, IA 50309  
(515) 725-0268

**Field Office 6**

1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Public Works Dept.**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Linn County Public Health Dept.**

Air Pollution Control Division  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

**V. Appendix A: 40 CFR 63 Subpart FFFF  
Miscellaneous Organic Chemical Manufacturing (MON) MACT**