

**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-002R2-M002**  
**Expiration Date: July 27, 2021**  
**Permit Renewal Application Deadline: January 27, 2021**

**EIQ Number: 92-3670**  
**Facility File Number: 70-01-008**

---

**Responsible Official**

**Name: Shawn Schrader**  
**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**

---

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**

---

Lori Hanson, Supervisor of Air Operating Permits Section

Date

# Table of Contents

<b>I. Facility Description and Equipment List .....</b>	<b>4</b>
<b>II. Plant - Wide Conditions.....</b>	<b>8</b>
<b>III. Emission Point Specific Conditions .....</b>	<b>12</b>
<b>IV. General Conditions.....</b>	<b>96</b>
G1. Duty to Comply	
G2. Permit Expiration	
G3. Certification Requirement for Title V Related Documents	
G4. Annual Compliance Certification	
G5. Semi-Annual Monitoring Report	
G6. Annual Fee	
G7. Inspection of Premises, Records, Equipment, Methods and Discharges	
G8. Duty to Provide Information	
G9. General Maintenance and Repair Duties	
G10. Recordkeeping Requirements for Compliance Monitoring	
G11. Evidence used in establishing that a violation has or is occurring.	
G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification	
G13. Hazardous Release	
G14. Excess Emissions and Excess Emissions Reporting Requirements	
G15. Permit Deviation Reporting Requirements	
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations	
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification	
G18. Duty to Modify a Title V Permit	
G19. Duty to Obtain Construction Permits	
G20. Asbestos	
G21. Open Burning	
G22. Acid Rain (Title IV) Emissions Allowances	
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements	
G24. Permit Reopenings	
G25. Permit Shield	
G26. Severability	
G27. Property Rights	
G28. Transferability	
G29. Disclaimer	
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification	
G31. Prevention of Air Pollution Emergency Episodes	
G32. Contacts List	
<b>V. Appendix A: Web Links for 40 CFR 63 Subpart FFFF, MMM &amp; DDDDD.....</b>	<b>110</b>

## 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
gr./dscf .....	grains per dry standard cubic foot
IAC.....	Iowa Administrative Code
DNR .....	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-002R2-M002

Facility Description: Agricultural Chemical Manufacturing (SIC 2879)

## CAC Unit Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP 37	EU-11-106	CAC Ketene Furnace	12-A-347
EP 38	EU-11-111-1	CAC Process Incinerator Burner	73-A-111-S6
	EU-11-111-2	Column Overheads	
	EU-11-S-1-2	CAC Process Off-Gas	
	EU-13-514-2	A-Unit Process Off-Gas	
EP 39	EU-11-FUG	Uncaptured CAC Emissions	NA
EP 234	EU-11-119-1	CAC Process Flare Burner	88-A-001-S3
	EU-11-119-2	Acid Cracking	
EP 243	EU-11-S-1-1	CAC Process Vents	87-A-102-S2
	EU-11-S-1-2	Process Off-Gas	
	EU-11-275	Chlorinated Waste Tank	
	EU-11-BL	CAC Truck Loading	
EP 328	EU-11-138	Acetic Acid Storage Tank	97-A-1012
EP 398A	EU-2-331	CAC West Cooling Tower	12-A-351
EP 399B	EU-2-101	CAC Center Cooling Tower	14-A-414
EP 400B	EU-2-101B	CAC East Cooling Tower	12-A-356

## CAC Unit Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-11-142	Catalyst Storage Tank ( $P_v = 0.0122$ psia)
EU-11-149	Solvent Storage Tank ( $P_v = 0.0048$ psia)
EU-11-TK14	Dilute Acid Receiver
EU-11-TK17	Temporary Acetic Acid Storage Tank ( $P_v = 0.401$ psia)

## GT Unit Equipment List

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 306	EU-4-0211	Tech Reactor #1	97-A-182-S9
	EU-4-0231	Tech Reactor #2	
	EU-4-1124	Tech Reactor #3	
	EU-4-0290	Flash Tank	
	EU-4-0220	Tech Reactor Vent Tank	
EP 307	EU-4-0170	GI Slurry Tank	97-A-183-S12
	EU-4-0679	Crystallizer	
	EU-4-0219	Hot Water Tank	
	EU-4-0239	Reactor Feed Tank	
	EU-4-0246	Recycle Catalyst Tank	
	EU-4-0033	Recycle Catalyst Tank Knockout Pot	
	EU-4-0255	Process Sump Tank	
	EU-4-0336	Waste Catalyst Tank	
	EU-4-0415	Evaporator Feed Tank	
	EU-4-0485	Distillate Receiver #1	
	EU-4-0500	Salt Slurry Tank	
	EU-4-0515	515 Centrifuge	
	EU-4-0516	516 Centrifuge	
	EU-4-0519	519 Centrifuge	
	EU-4-0550	550 Salt Slurry Tank	
	EU-4-0525	Centrate Tank	
	EU-4-0530	Spent Mother Liquor Tank	
	EU-4-0640	640 Cake Hopper	
	EU-4-0685	Distillate Receiver #2	
	EU-4-0920	920 Salt Reactor	
	EU-4-0930	930 Salt Reactor	
	EU-4-0715	Centrifuge #4	
	EU-4-0725	Centrate Feed Tank	
	EU-4-0750	#4 Centrifuge Tank	
	EU-4-0701	Packout Centrifuge #1	
	EU-4-0702	Packout Centrifuge #2	
	EU-4-0700	Packout Hopper	
	EU-4-0703	Pack Centrate Tank	
	EU-4-0773	773 Salt Slurry Tank	
	EU-4-0048	Centrate Surge Tank	
EU-4-0050	Ion Exchange Unit 1		
EU-4-0051	Ion Exchange Unit 2		
EU-4-0049	Waste Surge Tank		
EU-4-0734	Packout		
EU-4-1001	1001 Wetcake Conveyor		
EP 312	EU-4-0950	950 Salt Surge Tank	97-A-184-S6
EP 313	EU-4-0960	960 Salt Surge Tank	97-A-185-S6

## GT Unit Equipment List Continued

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 318	EU-4-0139	GI Railcar Unloading	97-A-188-S6
	EU-4-0345	Spent Catalyst Packout Tank	
EP 319	EU-4-0160	#1 Bulk GI Storage Tank	97-A-189-S6
EP 337	EU-4-FUG	GT Unit Fugitive Emissions	NA
EP 338	EU-4-0165	#2 Bulk GI Storage Tank	99-A-305-S4
EP 391	EU-4-1120	Closed Loop Coolant Tank w/ Steam Sparge	03-A-732-S1
EP 401	EU-1-844	GT East Cooling Tower	12-A-357
EP 402A	EU-1-845	GT West Cooling Tower	12-A-358-S1

## GT Unit Insignificant Activities Equipment List (Small Unit Exemption) <sup>(1)</sup>

<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
EU-4-1014	MEA North Thaw Station (#1)
EU-4-1013	MEA South Thaw Station (#2)
EU-4-901	MEA West Thaw Unloading/Thaw Station (#3)
EU-4-1007	MEA Storage Tank

(1) Emission Units qualify for Small Unit Exemption under 567 IAC 22.1(2)"w". Records shall be kept in accordance with 567 IAC 22.1(2)"w"(3).

## Multipurpose Unit Equipment List

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 4	EU-9-0302	Aqueous Waste Tank #2	97-A-202-S1
EP 8	EU-9-FUG	Uncaptured Multipurpose Emissions	NA
EP 10	EU-9-0300	Aqueous Waste Tank #1	97-A-203-S1
EP 11	EU-9TK-12	Propachlor Storage Tank	NA
EP 18	EU-9-0601	Autoclave #1	97-A-204-S2
	EU-9-0603	Autoclave #2	
	EU-9-0615	Autoclave Receiver #1	
	EU-9-0617	Autoclave Receiver #2	
EP 44	EU-9TK-335	NAA Storage Tank	99-A-882-S1
EP 138	EU-9TK-28	MON1400 Recovery Tank	97-A-205-S1
EP 151	EU-9-2925-01-0903	MON 13900 & 1400 Manufacturing	78-A-179-S6
	EU-9-0201	MON1400 Manufacturing-CAC Stripper	
	EU-9TK-25	MON1400 Manufacturing-Step II Reactor	
EP 155	EU-9TK-36	Product Day Tank	NA
EP 206	EU-9TK-44	Waste Tank #1	97-A-206-S2
EP 206A	EU-9TK-45	Waste Tank #2	97-A-372-S1
EP 286	EU-13-0949	Technical Storage Tank "D"	95-A-507
EP 315	EU-9-0539	Nitromethane Furfural Storage Tank	NA
EP 316	EU-9-0503	Organic Waste Tank	97-A-207
EP 327	EU-9-0477	Step II Residue Drumming	97-A-861
EP 330	EU-9-TL	Wastewater Truck Loading	97-A-554
EP 331	EU-9-RL	Wastewater Rail Car Loading	97-A-555-S1
EP 387	EU-9-0564	Evaporator System Vacuum Pump Separator	03-A-192-S1
EP 393	EU-9-0629	NIPA Column	03-A-1229
EP 404	EU-9TK-047	Acetone Storage Tank	11-A-015

## Multipurpose Unit Insignificant Activities Equipment List

<b>Insignificant Emission Unit Number</b>	<b>Insignificant Emission Unit Description</b>
EU-9-0963	Small n-isopropylaniline (NIPA) Tank
EU-9-0710	Propylene Glycol Tank
EU-9-0610	Catalyst Slurry Tank
EU-9-0414	Short Stop Tank
EU-9-0613	Spent Catalyst Tank

## II. Plant-Wide Conditions

Facility Name: Monsanto Company - Muscatine

Permit Number: 04-TV-002R2-M002

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

---

### Permit Duration

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

Commencing on: July 28, 2016

Ending on: July 27, 2021

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.

---

### 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 - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits 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 roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) 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 public 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 be 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, fertilizer 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.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

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

---

## **NESHAP**

Sources located at this facility are subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart MMM  
567 IAC 23.1(4)"bm"

Sources located at this facility are subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

Sources located at this facility are subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

---

### **Multiple Title V Permits**

Monsanto Company has applied for three Title V permits for their Muscatine facility. The facility is considered as a whole with regard to applicability of various air permitting programs. This permit (04-TV-002R2-M002) covers three process areas at the facility: the CAC, GT, and Multipurpose Units.

- The CAC Unit produces the herbicide intermediate chloroacetyl chloride (CAC). CAC is used at the facility to produce alachlor, acetochlor, and butachlor.
- The Glyphosate Technical (GT) Unit produces three salts of glyphosate: amine salt, monoethanolamine salt, and potassium salt. These salt solutions are considered herbicide active ingredients.
- The Multipurpose Unit may be used to produce two products on a campaign basis. Part of the year, the unit may produce MON 13900 (furalazole), a seed safener that is blended with acetochlor for use in the formulation facilities. Additionally, the unit may manufacture MON 1400, an herbicide active ingredient. These products cannot be made simultaneously.

### Other Title V Permits

DNR issued permit 04-TV-006R2 (for EIQ # 92-6908) to cover the Flowable Formulations and Liquid Formulations Units at this 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 herbicide products, 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.

DNR issued permit 04-TV-010R1 (for EIQ # 92-6909) to cover the A-Unit and Unit Services.

- The A-Unit Facility produces the acetanilide family of herbicides: alachlor, acetochlor and butachlor. These herbicide active ingredients are transferred to other areas in the plant where they are formulated into finished products and packaged.
- The Unit Services area provides utilities and wastewater treatment for the plant. This includes steam production, wastewater treatment, groundwater withdrawal, drinking water treatment, demineralized water supply to process operations and boiler feeds, and supply of utility chemicals (nitrogen, caustic, and ammonia).

### III. Emission Point-Specific Conditions

Facility Name: Monsanto Company - Muscatine

Permit Number: 04-TV-002R2-M002

#### CAC Unit Equipment List

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 37	EU-11-106	CAC Ketene Furnace	12-A-347
EP 38	EU-11-111-1	CAC Process Incinerator Burner	73-A-111-S6
	EU-11-111-2	Column Overheads	
	EU-11-S-1-2	CAC Process Off-Gas	
	EU-13-514-2	A-Unit Process Off-Gas	
EP 39	EU-11-FUG	Uncaptured CAC Emissions	NA
EP 234	EU-11-119-1	CAC Process Flare Burner	88-A-001-S3
	EU-11-119-2	Acid Cracking	
EP 243	EU-11-S-1-1	CAC Process Vents	87-A-102-S2
	EU-11-S-1-2	Process Off-Gas	
	EU-11-275	Chlorinated Waste Tank	
	EU-11-BL	CAC Truck Loading	
EP 328	EU-11-138	Acetic Acid Storage Tank	97-A-1012
EP 398A	EU-2-331	CAC West Cooling Tower	12-A-351
EP 399B	EU-2-101	CAC Center Cooling Tower	14-A-414
EP 400B	EU-2-101B	CAC East Cooling Tower	12-A-356

---

**Emission Point ID Number: EP 37**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-11-106	CAC Ketene Furnace	Natural Gas	16 MMBtu/hr.	12-A-347

---

**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: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 12-A-347  
567 IAC 23.3(2)"d"

<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).

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.24 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 12-A-347

Pollutant: Particulate Matter

Emission Limit: 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 12-A-347  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

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

**Operational Limits & Requirements**

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

Process throughput:

1. The CAC Ketene furnace shall utilize natural gas as the only fuel of use.

**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 conducted maintenance for the boiler and must, to the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions.

Authority for Requirement: Iowa DNR Construction Permit 12-A-347

**NESHAP:**

See "Plant Wide Condition" regarding 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 114

Stack Opening, (inches, dia.): 45.5

Exhaust Flow Rate (scfm): 780

Exhaust Temperature (°F): 1,300

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-347

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 38**

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-11-111-1	CAC Process Incinerator Burner	CE-11-114: CAC Incinerator CE-11-111: CAC Scrubber CE-11-115: CAC Quench Pot	Natural Gas	7.4 MMBtu/hr.	73-A-111-S6
EU-11-111-2	Column Overheads		Column Waste	1,410 lb/hr.	
EU-11-S-1-2	CAC Process Off-Gas		CAC Process Off-Gas	8,800 lb/hr. <sup>(1)</sup>	
EU-13-514-2	A-Unit Process Off-Gas		A-Unit Process Off-Gas	184 MM lb/yr.	

<sup>(1)</sup> This Rated Capacity applies specifically to CAC Production. Emission factors used for Process Off-Gas are based on CAC Production.

**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>(2), (3)</sup>

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
567 IAC 23.4(12)"b"

<sup>(2)</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).

<sup>(3)</sup> Visible air contaminants in excess of 60% opacity may be emitted for a period or period aggregating not more than 3 minutes in any 60-minute period during an operation breakdown or during the cleaning of air pollution control equipment.

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.100 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
567 IAC 23.4(12)"a"

Pollutant: Particulate Matter

Emission Limit(s): 0.35 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
567 IAC 23.4(12)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 500 ppmv

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

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 2.3 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
567 IAC 23.4(12)"a"

Pollutant: Single HAP (HCl & CL<sub>2</sub>)/Total HAP: For those streams under the MON MACT

Emission Limit(s): Organic HAP: Reduce by  $\geq 98\%$ ; OR to an outlet concentration  $\leq 20$  ppmv.

TOC HCL/CL<sub>2</sub>: Reduce combined HCL/CL<sub>2</sub> by  $\geq 99\%$ ; OR to an outlet concentration  $\leq 20$  ppmv; OR reduce emissions rate to  $\leq 0.45$  kg/hr.

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
40 CFR 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

Pollutant: Single HAP (HCl & CL<sub>2</sub>)/Total HAP: For those streams under the PAI MACT

Emission Limit(s): Organic HAP: Reduce uncontrolled emissions from each process vent subject to 40 CFR 63.1362(b)(2)(ii)(A) by  $\geq 98\%$ ; OR to an outlet concentration  $\leq 20$  ppmv.

HCL/CL<sub>2</sub>: Reduce combined HCL/CL<sub>2</sub> for the sum of all subject vents by  $\geq 94\%$ ; OR total HCL/CL<sub>2</sub> emissions shall not exceed 6.8 Mg/yr; OR reduce HCL/CL<sub>2</sub> emissions to an outlet concentration  $\leq 20$  ppmv.

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
40 CFR 63 Subpart MMM  
567 IAC 23.1(4)"bm"

### **Operational Limits & Requirements**

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

Control equipment parameters:

1. All control equipment and parametric monitors shall be maintained according to the manufacturer's specifications.
2. The waste streams from the Light Ends Column (EU 11-111-12) CAC- Unit Process Off-Gas (EU 11-S-1-2), and the A-Unit Process Off-Gas EU 13-514-2) shall not vent through emission point EP-38 without the CAC process incinerator (CE 11-114), CAC Incinerator Scrubber (CE 11-111) and the CAC Incinerator Quench (CE 11-115) operating within the parameters specified in this section of this permit.
3. During waste incineration, the CAC Incinerator shall maintain a minimum instantaneous temperature of 816 degrees Celsius. The CAC Incinerator shall also, during waste incineration, maintain a minimum daily average temperature of 828 degrees Celsius (the average temperature monitored during the most recent compliance test dated August 17 – 18, 2009).
4. During waste incineration, the minimum liquid flow rate to the CAC Incinerator scrubber shall be the minimum daily average, in gallons per minute, which demonstrated compliance with the emission limits as required under the MON (40 CFR 63 subpart FFFF) and PAI MACT(40 CFR 63 Subpart MMM) rules.
5. During waste incineration, the minimum pH for the liquid at the CAC Incinerator scrubber shall be the minimum daily average, in standard pH units, which demonstrated compliance

with the emission limits as required under the MON (40 CFR 63 subpart FFFF) and PAI MACT(40 CFR 63 Subpart MMM) rules.

6. The CAC Incinerator shall only use natural gas as a fuel source.
7. The A-Unit Process Off-gas shall only use the following alcohols in any production process: ethanol, denatured ethanol, butanol, and methanol.

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 a record of all inspections and calibration of the control equipment and associated parametric monitors. The owner or operator shall document the results of the inspections and calibrations and note any repairs that were the result of the inspections and calibrations.
2. The owner or operator shall maintain a record of the date and duration of each instance where the waste streams from the Light Ends Column (EU-11-111-2), the CAC Process Off-gas (EU-11-S-1-2), and the A-Unit Process Off-gas (EU-13-514-2) is vented without the CAC Process Incinerator (CE-11-114), CAC Incinerator Scrubber (CE-11-111), and the CAC Incinerator Quench (CE-11-115) operating within the parameters specified in this permit.
3. The owner or operator shall maintain a record of the temperature of the CAC Process Incinerator (CE-11-114). The temperature shall be recorded at intervals of 15 minutes or less while the incinerator is combusting wastes from the Light Ends Column, CAC Process Off-gas, or A-Unit Process Off-gas.
4. The owner or operator shall maintain a record of the waste feed rate to the CAC Incinerator (CE-11-114). The waste feed rate shall be recorded at intervals of 15 minutes or less while the incinerator is combusting wastes from the Light Ends Column, CAC Process Off-gas, or A-Unit Process Off-gas.
5. The owner or operator shall maintain a record of the liquid flow rate to the CAC Incinerator Scrubber (CE-11-111). The water usage shall be recorded at intervals of 15 minutes or less while the incinerator is combusting wastes from the Light Ends Column, CAC Process Off-gas, or A-Unit Process Off-gas.
6. The owner or operator shall maintain a record of the pH at the CAC Incinerator Scrubber (CE-11-111). The pH shall be recorded at intervals of 15 minutes or less while the incinerator is combusting wastes from the Light Ends Column, CAC Process Off-gas, or A-Unit Process Off-gas.
7. The owner or operator shall record the amount and type of fuel combusted in the CAC Incinerator on a monthly basis. Documentation may be in the form of fuel bills or meter readings, or other records that adequately document fuel usage.
8. The owner or operator shall the record the amount and type of alcohol used in the A-Unit Process Off-gas on a monthly basis.

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6

567 IAC 23.1(4)"cf"

567 IAC 23.1(4)"bm"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON).
2. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6  
567 IAC 23.1(4)"cf"  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 76  
Stack Opening, (inches, dia.): 36  
Exhaust Flow Rate (scfm): 2,152  
Exhaust Temperature (°F): 205  
Discharge Style: Vertical Unobstructed  
Authority for Requirement: Iowa DNR Construction Permit 73-A-111-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP-39**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-11-FUG	Uncaptured CAC Emissions	CAC Products	NA	NA

---

**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: EP 234**

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-11-119-1	CAC Process Flare Burner	CE-11-119: Gas Flare	Natural Gas	34 MMBtu/hr.	88-A-001-S3
EU-11-119-2	Acid Cracking		Acetic Acid	5,600 lb/hr.	

**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: 40 %<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3  
567 IAC 23.3(2)"d"

<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).

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.52 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3

Pollutant: PM<sub>10</sub>

Emission Limit: 0.52 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3

Pollutant: Particulate Matter

Emission Limit: 0.52 lb/hr., 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3  
567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit: 0.02 lb/hr., 500 ppmv

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3  
567 IAC 23.3(3)"e"

### **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 is limited to firing CAC Process Flare Burner (EU11-119-1) on natural gas fuel only.

#### Control equipment parameters:

1. All control equipment and parametric monitors shall be maintained according to the manufacturer's specifications.

#### Reporting & Record keeping:

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

1. Retain documentation onsite that only natural gas fuel is fired CAC Process Flare Burner (EU11-119-1).
2. The owner or operator shall maintain a record of all inspections and calibration of the control equipment and associated parametric monitors. The owner or operator shall document the results of the inspections and calibrations and note any repairs that were the result of the inspections and calibrations.

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3

### **Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 160

Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (scfm): 3,076

Exhaust Temperature (°F): 2,700

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 88-A-001-S3

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 243**

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-11-S-1-1	CAC Process Vents	CE-11-S-1: Water Scrubber	CAC	8,800 lb/hr.	87-A-102-S2
EU-11-S-1-2	Process Off-Gas		Process Off-Gas	390 hr/yr.	
EU-11-275	Chlorinated Waste Tank		Hazardous Waste	12,500 gallons	
EU-11-BL	CAC Truck Loading		Hazardous Waste	6,240,000 lb/yr.	

**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): 8.7 tons/yr

Authority for Requirement: Iowa DNR Construction Permit 87-A-102-S2

**Operational Limits & Requirements**

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

Hours of operation:

1. CAC process off-gas (POG) may be vented to the CAC process scrubber for a maximum of 390 hours in any rolling 12-month period.

Process Throughput:

1. The material loaded into trucks shall be limited to solvent column bottoms (SCB) generated in the CAC process.
2. The maximum amount of SCB that can be loaded into trucks is 6,240,000 pounds per year. Since this represents the maximum throughput for truck loading, no recordkeeping on the amount of material loaded is required by this permit.

**Reporting & Record keeping:**

*Records must be maintained onsite for at least five years and made available to the DNR upon request.*

1. The permittee shall keep the following monthly records:
  - a) The number of hours that the CAC process off-gas (POG) was vented to the scrubber;
  - b) The rolling, 12-month total of the number of hours that the CAC process off-gas (POG) was vented to the scrubber.
2. The permittee shall maintain a record whenever material other than CAC solvent column bottoms is loaded into trucks.

Authority for Requirement: Iowa DNR Construction Permit 87-A-102-S2

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON).

Authority for Requirement: 567 IAC 23.1(4)"cf"  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 106

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (scfm): 2,900

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 87-A-102-S2

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 328**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-11-138	Acetic Acid Storage Tank	Acetic Acid	80,000 gallons	97-A-1012

---

**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 97-A-1012

**Emission Point Characteristics**

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

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

Stack Opening, (feet, dia.): 0.33

Exhaust Flow Rate (scfm): 0

Exhaust Temperature (°F): 70

Authority for Requirement: Iowa DNR Construction Permit 97-A-1012

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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 Numbers: EP 398A & EP 398B

### Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP 398A	EU-2-331	CAC West Cooling Tower	Mist Eliminator	Water	3,977 gal/min.	12-A-351

---

### 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: PM<sub>2.5</sub>

Emission Limit(s): 0.186 lb/hr.

Authority for Requirement: DNR Construction Permit 12-A-351

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.186 lb/hr.

Authority for Requirement: DNR Construction Permit 12-A-351

Pollutant: Particulate Matter

Emission Limit(s): 0.186 lb/hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 12-A-351  
567 IAC 23.3(2)"a"

#### Operational Limits & Requirements

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

Process throughput:

1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per a single sampling event.
2. The facility shall maintain the Cooling Tower (EU 2-331) according to manufacturer specifications and maintenance schedule.
3. Owner or operator shall not use additives in cooling water associated with Cooling Tower (EU 2-331) that contains chromium compounds.

**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 facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
2. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall governing the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - a. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - b. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
3. The conductivity meter shall be calibrated and maintained in accordance with manufacturer's specifications.
4. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU 2-331).
5. Retain material safety data sheets (MSDS) of all additives used in cooling water associated with Cooling Tower (EU 2-331).

Authority for Requirement: Iowa DNR Construction Permit 12-A-351

**Emission Point Characteristics**

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

Stack Height, (from the ground): 17 ft., 3 inches

Stack Opening, (inches, dia.): 132 per cell

Exhaust Flow Rate (scfm): 208,100 per cell

Exhaust Temperature (°F): 93

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-351

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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 Numbers: EP 399B

### Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP 399B	EU-2-101	CAC Center Cooling Tower	Mist Eliminator	Water	3,977 gal/min.	14-A-414

---

### 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%

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

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.186 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 14-A-414

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.186 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 14-A-414

Pollutant: Particulate Matter

Emission Limit(s): 0.186 lb/hr., 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 14-A-414  
567 IAC 23.3(2)"a"

#### Operational Limits & Requirements

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

Process throughput:

1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per a single sampling event.
2. The facility shall maintain the Cooling Tower (EU 2-101) according to manufacturer specifications and maintenance schedule.
3. Owner or operator shall not use additives in cooling water associated with Cooling Tower (EU 2-101) that contains chromium compounds.

**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 facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
2. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall governing the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - a. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - b. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
3. The conductivity meter shall be calibrated and maintained in accordance with manufacturer's specifications.
4. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU 2-101).
5. Retain material safety data sheets (MSDS) of all additives used in cooling water associated with Cooling Tower (EU 2-101).

Authority for Requirement: Iowa DNR Construction Permit 14-A-414

**Emission Point Characteristics**

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

Stack Height, (from the ground): 21 ft., 9.6 inches

Stack Opening, (inches, dia.): 132 per cell

Exhaust Flow Rate (scfm): 208,100 per cell

Exhaust Temperature (°F): 86

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 14-A-414

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 400B**

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>
EP 400B	EU-2-101B	CAC East Cooling Tower	Mist Eliminator	Water	3,700 gal/min.	12-A-356

---

**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: PM<sub>2.5</sub>

Emission Limit(s): 0.173 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit12-A-356

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.173 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit12-A-356

Pollutant: Particulate Matter

Emission Limit(s): 0.173 lb/hr., 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit12-A-356  
567 IAC 23.3(2)"a"

**Operational Limits & Requirements**

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

Process throughput:

1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per a single sampling event.
2. The facility shall maintain the Cooling Tower (EU 2-101B) according to manufacturer specifications and maintenance schedule.
3. Owner or operator shall not use additives in cooling water associated with Cooling Tower (EU 2-101B) that contains chromium compounds.

**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 facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
2. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall governing the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - a. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - b. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
3. The conductivity meter shall be calibrated and maintained in accordance with manufacturer's specifications.
4. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU 2-101B).
5. Retain material safety data sheets (MSDS) of all additives used in cooling water associated with Cooling Tower (EU 2-101B).

Authority for Requirement: Iowa DNR Construction Permit 12-A-356

**Emission Point Characteristics**

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

Stack Height, (from the ground): 17 ft., 3 inches

Stack Opening, (inches, dia.): 132 per cell

Exhaust Flow Rate (scfm): 208,100 per cell

Exhaust Temperature (°F): 93

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-356

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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)

## GT Unit Equipment List

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 306	EU-4-0211	Tech Reactor #1	97-A-182-S9
	EU-4-0231	Tech Reactor #2	
	EU-4-1124	Tech Reactor #3	
	EU-4-0290	Flash Tank	
	EU-4-0220	Tech Reactor Vent Tank	
EP 307	EU-4-0170	GI Slurry Tank	97-A-183-S12
	EU-4-0679	Crystallizer	
	EU-4-0219	Hot Water Tank	
	EU-4-0239	Reactor Feed Tank	
	EU-4-0246	Recycle Catalyst Tank	
	EU-4-0033	Recycle Catalyst Tank Knockout Pot	
	EU-4-0255	Process Sump Tank	
	EU-4-0336	Waste Catalyst Tank	
	EU-4-0415	Evaporator Feed Tank	
	EU-4-0485	Distillate Receiver #1	
	EU-4-0500	Salt Slurry Tank	
	EU-4-0515	515 Centrifuge	
	EU-4-0516	516 Centrifuge	
	EU-4-0519	519 Centrifuge	
	EU-4-0550	550 Salt Slurry Tank	
	EU-4-0525	Centrate Tank	
	EU-4-0530	Spent Mother Liquor Tank	
	EU-4-0640	640 Cake Hopper	
	EU-4-0685	Distillate Receiver #2	
	EU-4-0920	920 Salt Reactor	
	EU-4-0930	930 Salt Reactor	
	EU-4-0715	Centrifuge #4	
	EU-4-0725	Centrate Feed Tank	
	EU-4-0750	#4 Centrifuge Tank	
	EU-4-0701	Packout Centrifuge #1	
	EU-4-0702	Packout Centrifuge #2	
	EU-4-0700	Packout Hopper	
	EU-4-0773	Pack Centrate Tank	
	EU-4-0048	773 Salt Slurry Tank	
	EU-4-0050	Centrate Surge Tank	
EU-4-0051	Ion Exchange Unit 1		
EU-4-0049	Waste Surge Tank		
EU-4-0734	Packout		
EU-4-1001	1001 Wetcake Conveyor		
EP 312	EU-4-0950	950 Salt Surge Tank	97-A-184-S6
EP 313	EU-4-0960	960 Salt Surge Tank	97-A-185-S6

---

**GT Unit Equipment List Continued**

---

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 318	EU-4-0139	GI Railcar Unloading	97-A-188-S6
	EU-4-0345	Spent Catalyst Packout Tank	
EP 319	EU-4-0160	#1 Bulk GI Storage Tank	97-A-189-S6
EP 337	EU-4-FUG	GT Unit Fugitive Emissions	NA
EP 338	EU-4-0165	#2 Bulk GI Storage Tank	99-A-305-S4
EP 391	EU-4-1120	Closed Loop Coolant Tank w/ Steam Sparge	03-A-732-S1
EP 401	EU-1-844	GT East Cooling Tower	12-A-357
EP 402A	EU-1-845	GT West Cooling Tower	12-A-358-S1

**Emission Point ID Number: EP 306**

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-4-0211	Tech Reactor #1	CE-4-0229: Packed Scrubber	GT	17,500 gallons	97-A-182-S9
EU-4-0231	Tech Reactor #2		GT	17,500 gallons	
EU-4-1124	Tech Reactor #3		GT	6,835 gallons	
EU-4-0290	Flash Tank		GT	2,500 gallons	
EU-4-0220	Tech Reactor Vent Tank		GT	14,000 gallons	

**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 97-A-182-S9  
567 IAC 23.3(2)"d"

<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).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.28 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9

Pollutant: Particulate Matter

Emission Limit(s): 0.28 lb/hr., 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 2.0 lb/hr., 13.2 tons/yr.<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9

<sup>(2)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

**Operational Limits & Requirements**

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

Control equipment parameters:

- 1. The packed scrubber shall be operated and maintained according to manufacturer's specifications.

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 maintenance records on the scrubber.

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9

**NESHAP:**

- 1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 111

Stack Opening, (inches, dia.): 20

Exhaust Flow Rate (scfm): 3,310

Exhaust Temperature (°F): 88

Discharge Style: Vertical w/o raincap or w/ unobstructing raincap

Authority for Requirement: Iowa DNR Construction Permit 97-A-182-S9

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 307**

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-4-0170	GI Slurry Tank	CE-4-0785: Packed Scrubber CE-4-0771: Dust Collector	GI	27,260 gallons	97-A-183-S12
EU-4-0679	Crystallizer		GT	86,000 gallons	
EU-4-0219	Hot Water Tank		GT	34,800 gallons	
EU-4-0239	Reactor Feed Tank		GT	8,320 gallons	
EU-4-0246	Recycle Catalyst Tank		GT	3,295 gallons	
EU-4-0033	Recycle Catalyst Tank Knockout Pot		GT	10 gallons	
EU-4-0255	Process Sump Tank		GT	2,350 gallons	
EU-4-0336	Waste Catalyst Tank		GT	3,295 gallons	
EU-4-0415	Evaporator Feed Tank		GT	22,322 gallons	
EU-4-0485	Distillate Receiver #1		GT	1,500 gallons	
EU-4-0500	Salt Slurry Tank		GT	5,718 gallons	
EU-4-0515	515 Centrifuge		GT	28,500 lb/hr	
EU-4-0516	516 Centrifuge		GT	28,500 lb/hr	
EU-4-0519	519 Centrifuge		GT	28,500 lb/hr	
EU-4-0550	550 Salt Slurry Tank		GT	4,380 gallons	
EU-4-0525	Centrate Tank		GT	900 gallons	
EU-4-0530	Spent Mother Liquor Tank		GT	27,100 gallons	
EU-4-0640	640 Cake Hopper		GT	28,500 lb/hr	
EU-4-0685	Distillate Receiver #2		GT	390 gallons	
EU-4-0920	920 Salt Reactor		GT	1,500 gallons	
EU-4-0930	930 Salt Reactor		Glyphosate Salt	2,437 gallons	
EU-4-0715	Centrifuge #4		GT	240 gallons	
EU-4-0725	Centrate Feed Tank		GT	556 gallons	
EU-4-0750	#4 Centrifuge Tank		GT	2,090 gallons	
EU-4-0701	Packout Centrifuge #1		GT	10,000 lb/hr	
EU-4-0702	Packout Centrifuge #2		GT	10,000 lb/hr	
EU-4-0700	Packout Hopper		GT	10,000 lb/hr	
EU-4-0703	Pack Centrate Tank		GT	1 hr/hr	
EU-4-0773	773 Salt Slurry Tank		GI/GT	17,000 gallons	
EU-4-0048	Centrate Surge Tank		GT	10,684 gallons	
EU-4-0050	Ion Exchange Unit 1		GT	2,539 gallons	
EU-4-0051	Ion Exchange Unit 2	GT	2,539 gallons		
EU-4-0049	Waste Surge Tank	GT	18,607 gallons		
EU-4-1001	1001 Wetcake Conveyor	GT	500 gallons		

## **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 97-A-183-S12  
567 IAC 23.3(2)"d"

<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).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.35 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12

Pollutant: Particulate Matter

Emission Limit(s): 0.35 lb/hr., 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 1.0 lb/hr., 13.2 tons/yr.<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12

<sup>(2)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

Pollutant: Total HAP

Emission Limit(s): 90% reduction or 20 ppmv

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12  
567 IAC 23.1(4)"bm"

### **Operational Limits & Requirements**

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

Process throughput:

1. Total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356 and 357 shall not exceed 13.2 TPY.
2. The owner or operator shall comply with all applicable existing source requirements of 40 CFR §63.1360 through 40 CFR §63.1369 (NESHAP Subpart MMM).

Control equipment parameters:

1. The packed scrubber and dust collector shall be operated and maintained according to the manufacturer's specifications.

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 maintenance records on the scrubber and dust collector.
2. Record daily the amount of PAI produced in this PAI process unit in pounds or tons. Calculate and record 12-month rolling totals.
3. Using the daily production records, calculate and record each month the total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356, and 357 in tons. Calculate and record 12-month rolling totals.
4. The owner or operator shall comply with all applicable monitoring and recordkeeping requirements of 40 CFR 63 Subpart MMM after the existing source compliance date listed in 40 CFR §63.1364(a).
5. The owner or operator shall follow all recordkeeping requirements specified in 40 CFR §63.1367 including maintaining the following records:
  - a. Control device operating parameters in accordance with §63.1366.
  - b. A record of the PAI and non-PAI process units in this process unit group, including records of the operating time for process units used to establish the process unit group.
  - c. A description of absolute or hypothetical peak-case operating conditions as determined using the procedures in §63.1365(b)(11).
6. The owner or operator shall implement the leak detection and repair recordkeeping requirements specified in §63.1363(g).
7. The owner or operator shall keep all records of equipment inspection as required in §63.1367(f)(1) through (6).

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12  
567 IAC 23.1(4)"bm"

NESHAP:

1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 105

Stack Opening, (inches, dia.): 16

Exhaust Flow Rate (scfm): 2,611

Exhaust Temperature (°F): 105

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-183-S12

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 312

### Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-4-0950	950 Salt Surge Tank	Glyphosate Salt	13,000 gallons	97-A-184-S6

---

## 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): 13.2 tons/yr.<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-184-S6

<sup>(1)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

### 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 comply with all applicable existing source requirements of 40 CFR §63.1360 through 40 CFR §63.1369 (NESHAP Subpart MMM).
2. Total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356, and 357 shall not exceed 13.2 TPY.

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 follow all recordkeeping requirements specified in 40 CFR §63.1367.
2. The owner or operator shall implement the leak detection and repair recordkeeping requirements specified in §63.1363(g).
3. The owner or operator shall keep all records of equipment inspection as required in §63.1367(f)(1) through (6).
4. Record daily the amount of PAI produced in this PAI process unit in pounds or tons. Calculate and record 12-month rolling totals.
5. Using the daily production records, calculate and record each month the total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356, and 357 in tons. Calculate and record 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 97-A-184-S6  
567 IAC 23.1(4)"bm"

NESHAP:

1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-184-S6  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 25

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 120

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-184-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 313

### Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-4-0960	960 Salt Surge Tank	Glyphosate Salt	13,000 gallons	97-A-185-S6

---

## 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): 13.2 tons/yr.<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-185-S6

<sup>(1)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

### 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 comply with all applicable existing source requirements of 40 CFR §63.1360 through 40 CFR §63.1369 (NESHAP Subpart MMM).
2. Total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356, and 357 shall not exceed 13.2 TPY.

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 follow all recordkeeping requirements specified in 40 CFR §63.1367.
2. The owner or operator shall implement the leak detection and repair recordkeeping requirements specified in §63.1363(g).
3. The owner or operator shall keep all records of equipment inspection as required in §63.1367(f)(1) through (6).
4. Record daily the amount of PAI produced in this PAI process unit in pounds or tons. Calculate and record 12-month rolling totals.
5. Using the daily production records, calculate and record each month the total VOC emissions from emission points 306, 307, 309, 312, 313, 318, 319, 335, 338, 356, and 357 in tons. Calculate and record 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 97-A-185-S6  
567 IAC 23.1(4)"bm"

NESHAP:

1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-185-S6  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 25

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 120

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-185-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 318

### Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-4-0139	GI Railcar Unloading	Glyphosate Intermediate	487,000 lb/hr.	97-A-188-S6
EU-4-0345	Spent Catalyst Packout Tank	Catalyst/ Water & Glycerin	3,295 gallons	

---

### 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 97-A-188-S6  
567 IAC 23.3(2)"d"

<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).

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.024 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6

Pollutant: PM<sub>10</sub>

Emission Limit(s): 1.74 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6

Pollutant: Particulate Matter

Emission Limit(s): 1.74 lb/hr., 0.1 gr/scf

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 13.2 tons/yr.<sup>(2)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6

<sup>(2)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

**Operational Limits & Requirements**

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

**NESHAP:**

- 1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 45

Stack Opening, (inches, dia.): 12

Exhaust Flow Rate (scfm): 2,500

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 97-A-188-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 319**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-4-0160	#1 Bulk GI Storage Tank	Glyphosate Intermediate	25,160 gallons	97-A-189-S6

---

**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): 13.2 tons/yr.<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 97-A-189-S6

<sup>(1)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

**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. Material Safety Data Sheets (MSDS) shall be kept for all chemicals stored in the tank.
2. The owner or operator shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the tank.

Authority for Requirement: Iowa DNR Construction Permit 97-A-189-S6

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 97-A-189-S6  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 1

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 105

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-189-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 337**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-4-FUG	Uncaptured GT Emissions	GT Products	NA	NA

---

**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: EP 338**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-4-0165	#2 Bulk GI Storage Tank	Glyphosate Intermediate	25,160 gallons	99-A-305-S4

---

**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): 13.2 tons/yr.<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 99-A-305-S4

<sup>(1)</sup>Total VOC emissions allowed from EP 306, EP 307, EP 309, EP 312, EP 313, EP 318, EP 319, EP 335, EP 338, EP 356 and EP 357 shall not exceed 13.2 tons per rolling 12-month period.

**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. Material Safety Data Sheets (MSDS) shall be kept for all chemicals stored in the tank.

Authority for Requirement: Iowa DNR Construction Permit 99-A-305-S4

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants: Pesticide Active Ingredient (PAI).

Authority for Requirement: Iowa DNR Construction Permit 99-A-305-S4  
567 IAC 23.1(4)"bm"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 1

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 105

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 99-A-305-S4

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 391**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-4-1120	Closed Loop Coolant Tank	Water w/ Biocide	2,320 gallons	03-A-732-S1

---

**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 unit 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.): 2

Exhaust Flow Rate (scfm): Breathing Loss & Displacement

Exhaust Temperature (°F): 200

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 03-A-732-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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 Numbers: EP 401

### Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP 401	EU-1-844	GT East Cooling Tower	Mist Eliminator	Water	8,000 gal/min.	12-A-357

---

### 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%

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

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.374 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 12-A-357

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.374 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 12-A-357

Pollutant: Particulate Matter

Emission Limit(s): 0.374 lb/hr., 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 12-A-357  
567 IAC 23.3(2)"a"

#### Operational Limits & Requirements

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

Process throughput:

1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per a single sampling event.
2. The facility shall maintain the Cooling Tower (EU 1-844) according to manufacturer specifications and maintenance schedule.
3. Owner or operator shall not use additives in cooling water associated with Cooling Tower (EU 1-844) that contains chromium compounds.

**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 facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
2. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall governing the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - a. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - b. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
3. The conductivity meter shall be calibrated and maintained in accordance with manufacturer's specifications.
4. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU 1-844).
5. Retain material safety data sheets (MSDS) of all additives used in cooling water associated with Cooling Tower (EU 1-844).

Authority for Requirement: Iowa DNR Construction Permit 12-A-357

**Emission Point Characteristics**

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

Stack Height, (from the ground): 16 ft., 7.2 inches

Stack Opening, (inches, dia.): 120 per cell

Exhaust Flow Rate (scfm): 156,688 per cell

Exhaust Temperature (°F): 115

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 12-A-357

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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 Numbers: EP 402A & EP 402B

### Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP 402A	EU-1-845	GT West Cooling Tower	Mist Eliminator	Water	4,000 gal/min.	12-A-358-S1

---

### 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: PM<sub>2.5</sub>

Emission Limit(s): 0.187 lb/hr.

Authority for Requirement: DNR Construction Permit 12-A-358-S1

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.187 lb/hr.

Authority for Requirement: DNR Construction Permit 12-A-358-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.187 lb/hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 12-A-358-S1  
567 IAC 23.3(2)"a"

#### Operational Limits & Requirements

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

Process throughput:

1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per a single sampling event.
2. The facility shall maintain the Cooling Tower (EU 1-845) according to manufacturer specifications and maintenance schedule.
3. Owner or operator shall not use additives in cooling water associated with Cooling Tower (EU 1-845) that contains chromium compounds.

**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 facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
2. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall governing the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - a. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - b. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
3. The conductivity meter shall be calibrated and maintained in accordance with manufacturer's specifications.
4. The facility shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Cooling Tower (EU 1-845).
5. Retain material safety data sheets (MSDS) of all additives used in cooling water associated with Cooling Tower (EU 1-845).

Authority for Requirement: DNR Construction Permit 12-A-358-S1

**Emission Point Characteristics**

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

Stack Height, (from the ground): 16.43

Stack Opening, (inches, dia.): 120 per cell

Exhaust Flow Rate (scfm): 170,000 per cell

Exhaust Temperature (°F): 115

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 12-A-358-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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)

## Multipurpose Unit Equipment List

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>DNR Construction Permit Number</b>
EP 4	EU-9-0302	Aqueous Waste Tank #2	97-A-202-S1
EP 8	EU-9-FUG	Uncaptured Multipurpose Emissions	NA
EP 10	EU-9-0300	Aqueous Waste Tank #1	97-A-203-S1
EP 11	EU-9TK-12	Propachlor Storage Tank	NA
EP 18	EU-9-0601	Autoclave #1	97-A-204-S2
	EU-9-0603	Autoclave #2	
	EU-9-0615	Autoclave Receiver #1	
	EU-9-0617	Autoclave Receiver #2	
EP 44	EU-9TK-335	NAA Storage Tank	99-A-882-S1
EP 138	EU-9TK-28	MON1400 Recovery Tank	97-A-205-S1
EP 151	EU-9-2925-01-0903	MON 13900 & 1400 Manufacturing	78-A-179-S6
	EU-9-0201	MON1400 Manufacturing-CAC Stripper	
	EU-9TK-25	MON1400 Manufacturing-Step II Reactor	
EP 155	EU-9TK-36	Product Day Tank	NA
EP 206	EU-9TK-44	Waste Tank #1	97-A-206-S2
EP 206A	EU-9TK-45	Waste Tank #2	97-A-372-S1
EP 286	EU-13-0949	Technical Storage Tank "D"	95-A-507
EP 315	EU-9-0539	Nitromethane Furfural Storage Tank	NA
EP 316	EU-9-0503	Organic Waste Tank	97-A-207
EP 327	EU-9-0477	Step II Residue Drumming	97-A-861
EP 330	EU-9-TL	Wastewater Truck Loading	97-A-554
EP 331	EU-9-RL	Wastewater Rail Car Loading	97-A-555-S1
EP 387	EU-9-0564	Evaporator System Vacuum Pump Separator	03-A-192-S1
EP 393	EU-9-0629	NIPA Column	03-A-1229
EP 404	EU-9TK-047	Acetone Storage Tank	11-A-015

---

**Emission Point ID Number: EP 4**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0302	Aqueous Waste Tank #2	MON 13900/1400 Waste	12,500 gallons	97-A-202-S1

---

**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 unit 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. The permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 97-A-202-S1  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission point is a Group 2 storage tank covered under NESHAP FFFF

Authority for Requirement: Iowa DNR Construction Permit 97-A-202-S1  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 15.5

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-202-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 8**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-FUG	Uncaptured Multipurpose Emissions	Multipurpose Products	NA	NA

---

**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 unit 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: EP 10**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0300	Aqueous Waste Tank #1	MON 13900/1400 Waste	12,500 gallons	97-A-203-S1

---

**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 unit 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. The permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 97-A-203-S1  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission point is a Group 2 storage tank covered under NESHAP FFFF

Authority for Requirement: Iowa DNR Construction Permit 97-A-203-S1  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 15.5

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-203-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 11**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-12	Propachlor Storage Tank*	Propachlor	30,000 gallons	NA

\* This emission unit has been idled. The facility shall notify the Department before this emission unit is put back into service.

---

**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 unit 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: EP 18**

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-9-0601	Autoclave #1	CE-9-0605: Condenser	MON 13900	1,000 gallons	97-A-204-S2
EU-9-0603	Autoclave #2	CE-9-0609:Condenser		1,000 gallons	
EU-9-0615	Autoclave Receiver #1	CE-9C-5: Condenser		1,500 gallons	
EU-9-0617	Autoclave Receiver #2	EU-9C-6: Condenser		1,500 gallons	

**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 unit 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 comply with the applicable requirements in 40 CFR Part 63, Subpart FFFF [§63.2430 - §63.2550], including those not specifically mentioned in this permit. If differences in language are found between this permit and Subpart FFFF, the language specified in Subpart FFFF shall be considered correct.
2. The owner or operator shall ensure that the combined uncontrolled organic HAP emissions from all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 remains less than 10,000 pounds per 12-month rolling period.
3. In accordance with 40 CFR §63.2450(e) and as indicated in 40 CFR §63.982(c), the owner or operator shall comply with the control device requirements described in 40 CFR §63.983 for closed vent systems (see 40 CFR Part 63, Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process).

Control equipment parameters:

1. The owner or operator shall maintain and operate the control equipment in accordance to manufacturer’s specifications.

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 monthly records of all the materials processed in the emission units associated with Emission Point EP-18.
2. The owner or operator shall maintain a copy of the Safety Data Sheet (SDS) for each material used in the emission units associated with Emission Point EP-18.
3. At the end of each month, the owner or operator shall calculate<sup>(1)</sup> and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous month.
4. At the end of each month, the owner or operator shall calculate<sup>(1)</sup> and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous 12 months.
5. The owner or operator shall implement the following procedure if the 12-month rolling total of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 exceeds 8,000 pounds.
  - a. At the end of each day, the owner or operator shall calculate<sup>(1)</sup> and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous day.
  - b. At the end of each day, the owner or operator shall calculate<sup>(1)</sup> and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous 365 days.
  - c. Calculation and recordkeeping of data collected on Saturdays and Sundays shall be conducted no later than the following Mondays.
  - d. Calculation and recordkeeping of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 shall not be required when emissions do not occur.
  - e. Daily calculations and recordkeeping of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 shall continue until the rolling 12-month total amount drops below 8,000 pounds on the last day of the month. Monthly calculations of uncontrolled organic HAP shall then begin in the following month.
6. In accordance with 40 CFR §63.2450(e) and as indicated in 40 CFR §63.982(c), the owner or operator shall comply with the applicable recordkeeping requirements in 40 CFR §63.998 and with the reporting requirements in 40 CFR §63.999 for control devices used in closed vent systems.
7. The owner or operator shall comply with the notification, reporting, and recordkeeping requirements as outlined in 40 CFR §63.2515, §63.2520, and §63.2525, respectively.

8. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:
  - a. The date and time any inspection and/or maintenance was performed on the control equipment;
  - b. Any issues identified during the inspection;
  - c. Any issues addressed during the maintenance activities; and
  - d. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: Iowa DNR Construction Permit 97-A-204-S2

<sup>(1)</sup> Calculations shall be performed using emission factors developed from the combination of process modeling and stack testing results.

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). The batch process vents associated with Emission Points EP-18 and EP-151 are classified as *Group 2 Batch Process Vents*, as defined in 40 CFR §63.2550.

Authority for Requirement: Iowa DNR Construction Permit 97-A-204-S2  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

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

Stack Opening, (inches, dia.): 24

Exhaust Flow Rate (scfm): Up to 300

Exhaust Temperature (°F): 95

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 97-A-204-S2

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 44**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-335	NAA Storage Tank	NAA	12,500 gallons	99-A-882-S1

---

**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 unit 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 permittee shall maintain maximum true vapor pressure less than 15 kPa for this storage tank (EP 44).

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 permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 99-A-882-S1  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: Iowa DNR Construction Permit 99-A-882-S1  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 27.3

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 99-A-882-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 138**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-28	MON 1400 Recovery Tank	MON 1400 Waste	6,000 gallons	97-A-205-S1

---

**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 unit 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. The permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 97-A-205-S1  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: Iowa DNR Construction Permit 97-A-205-S1  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 0.5

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-205-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 151**

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-9-2925-01-0903	MON 13900 Manufacturing	CE-9-0903 Packed Bed Scrubber	MON 13900	467 lb/hr	78-A-179-S6
	MON 1400 Manufacturing		MON 1400	5,417 lb/hr	
EU-9-0201	MON1400 Manufacturing-CAC Stripper	CE-9D-30 Absorber followed by CE-9-0903 Packed Bed Scrubber	MON 1400	2,000 gal	
EU-9TK-25	MON1400 Manufacturing-Step II Reactor	CE-9D-30A Absorber followed by CE-9-0903 Packed Bed Scrubber	MON 1400	2,000 gal	

**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: 40%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 78-A-179-S6  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 25% will required the owner or 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 Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>2.5</sub>

Emission Limit: 0.042 lb/hr.

Authority for Requirement: DNR Construction Permit 78-A-179-S6

Pollutant: Particulate Matter

Emission Limit: 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 78-A-179-S6  
567 IAC 23.3(2)"a"

Pollutant: Hydrogen Chloride (HCl)

Emission Limit: 0.40 lb/hr.

Authority for Requirement: DNR Construction Permit 78-A-179-S6

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below. All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.*

- A. The owner or operator shall ensure that the combined uncontrolled organic HAP emissions from all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 remains less than 10,000 pounds per 12-month rolling period.
- B. The owner or operator shall maintain monthly records of all the materials processed in the emission units associated with Emission Point EP-151.
- C. The owner or operator shall maintain a copy of the Safety Data Sheet (SDS) for each material used in the emission units associated with Emission Point EP-151.
- D. The owner or operator shall calculate, at the end of each month, and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous month. Calculations shall be performed using emission factors developed from the combination of process modeling and stack testing results.
- E. The owner or operator shall calculate, at the end of each month, and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous 12 months. Calculations shall be performed using emission factors developed from the combination of process modeling and stack testing results.
- F. The owner or operator shall implement the following procedure if the 12-month rolling total of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 exceeds 8,000 pounds.
  - i. At the end of each day, the owner or operator shall calculate and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous day. Calculations shall be performed using emission factors developed from the combination of process modeling and stack testing results.
  - ii. At the end of each day, the owner or operator shall calculate and record the total amount of uncontrolled organic HAP, in pounds, emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 over the previous 365 days. Calculations shall be performed using emission factors developed from the combination of process modeling and stack testing results.
  - iii. Calculation and recordkeeping of data collected on Saturdays and Sundays shall be conducted no later than the following Mondays.
  - iv. Calculation and recordkeeping of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 shall not be required when emissions do not occur.

- v. Daily calculations and recordkeeping of uncontrolled organic HAP emitted from the operation of all Group 2 batch process vents associated with Emission Points EP-18 and EP-151 shall continue until the rolling 12-month total amount drops below 8,000 pounds on the last day of the month. Monthly calculations of uncontrolled organic HAP shall then begin in the following month.
- G. In accordance with 40 CFR §63.2450(e) and as indicated in 40 CFR §63.982(c), the owner or operator shall comply with the applicable recordkeeping requirements in 40 CFR §63.998 and with the reporting requirements in 40 CFR §63.999 for control devices used in closed vent systems.
- H. The owner or operator shall comply with the notification, reporting, and recordkeeping requirements as outlined in 40 CFR §63.2515, §63.2520, and §63.2525, respectively.
- I. The owner or operator shall maintain a record of the liquid flow rate to the Packed Bed Scrubber (CE-9-0903).
- J. The owner or operator shall maintain all fresh water for the Packed Bed Scrubber (CE-9-0903) during MON13900 manufacturing and a minimum pH value of 2.0 during MON1400 manufacturing.
- K. The owner or operator shall keep a log of all maintenance and inspection activities performed on the control equipment. This log shall include, but is not limited to:
  - a. The date and time any inspection and/or maintenance was performed on the control equipment;
  - b. Any issues identified during the inspection;
  - c. Any issues addressed during the maintenance activities; and
  - d. Identification of the staff member performing the maintenance or inspection.

Authority for Requirement: DNR Construction Permit 78-A-179-S6  
567 IAC 23.1(4)"cf"

NESHAP:

- 1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). The batch process vents associated with Emission Points EP-18 and EP-151 are classified as *Group 2 Batch Process Vents*, as defined in 40 CFR §63.2550.

Authority for Requirement: DNR Construction Permit 78-A-179-S6  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 57  
Stack Opening, (inches, dia.): 10  
Exhaust Flow Rate (scfm): 1,410  
Exhaust Temperature (°F): 95  
Discharge Style: Vertical Unobstructed  
Authority for Requirement: DNR Construction Permit 78-A-179-S6

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 155**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-36	Product Day Tank	MON 13900 or MON 1400	19,000 gallons	NA

---

**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 unit at this time.

**Operational Limits & Requirements**

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

NESHAP:

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: 567 IAC 23.1(4)"cf"

**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: EP 206**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-44	Waste Tank #1	Aqueous Waste from MON13900 or MON1400 Processes	6,000 gallons	97-A-206-S2

---

**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 unit 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. The permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 97-A-206-S2  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: Iowa DNR Construction Permit 97-A-206-S2  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 27

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-206-S2

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 206A**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-45	Waste Tank #2	Aqueous Waste from MON13900 or MON1400 Processes	6,000 gallons	97-A-372-S1

---

**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 unit 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. The permittee shall maintain records for all materials stored in this emission unit.
2. The permittee shall maintain a copy of the Material Safety Data Sheet (MSDS) for all materials stored in this emission unit.
3. The permittee shall determine the group status for this emission unit as specified in 40 CFR §63.2460(b).
4. The permittee shall meet all the applicable requirements of notification reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520 and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 97-A-372-S1  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: Iowa DNR Construction Permit 97-A-372-S1  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 27

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: Iowa DNR Construction Permit 97-A-372-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 286**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-13-0949	Technical Storage Tank D	Acetochlor & MON 13900	250,000 gallons	95-A-507

---

**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 unit at this time.

**Operational Limits & Requirements**

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

Operating Limits:

1. The storage vessel shall not store a liquid with a maximum true vapor pressure greater than 0.010 mmHg.
2. The storage tank shall be insulated.

Authority for Requirement: Iowa DNR Construction Permit 95-A-507

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 VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

Authority for Requirement: Iowa DNR Construction Permit 95-A-507

**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: EP 315**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0539	Nitromethane Furfural Tank	Nitromethane/ Furfural Mix	20,000 gallons	NA

---

**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 unit 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: EP 316**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0503	Organic Waste Tank	Organic Waste	10,600 gallons	97-A-207

---

**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 unit at this time.

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 38

Stack Opening, (inches, dia.): 3\*

Exhaust Flow Rate (scfm): NA

Exhaust Temperature (°F): Ambient

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 97-A-207

\* Construction Permit 97-A-207 lists a stack diameter of 2 inches. The correct stack diameter is 3 inches.

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 327**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0477	Step II Residue Drumming	MON 13900 Step II Residue	87 lb/hr.	97-A-861

---

**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 unit at this time.

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 71.6

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (acfm): 200

Exhaust Temperature (°F): 85

Discharge Style: NA

Authority for Requirement: Iowa DNR Construction Permit 97-A-861

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 330**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-TL	Wastewater Truck Loading	Step I & IV Wastewaters	7,359 lb/hr.	99-A-554

---

**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 unit at this time.

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 26

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (scfm): 5

Exhaust Temperature (°F): 70

Discharge Style: Horizontal

Authority for Requirement: Iowa DNR Construction Permit 99-A-554

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 331**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-RL	Wastewater Rail Car Loading	Step I & IV Wastewaters	7,359 lb/hr.	99-A-555-S1

---

**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 unit at this time.

**Emission Point Characteristics**

*The 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): 5

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 99-A-555-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 387**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0564	Evaporator System Vacuum Pump Separator	MON 13900	456 lb/hr.	03-A-192-S1

---

**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 unit at this time.

**Operational Limits & Requirements**

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

Operating Limits, 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 meet all applicable requirements as specified in 40 CFR §63.2450 and §63.2455.
2. The owner or operator shall meet all applicable requirements of reporting and recordkeeping as specified in 40 CFR §63.2515, §63.2520, and §63.2525.

Authority for Requirement: Iowa DNR Construction Permit 03-A-192-S1  
40 CFR 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

**NESHAP:**

1. This source is subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON). This emission unit is a Group 2 storage tank covered by this subpart.

Authority for Requirement: 40 CFR 63 Subpart FFFF  
567 IAC 23.1(4)"cf"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 57

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (acfm): 28

Exhaust Temperature (°F): 100

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-192-S1

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 393**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9-0629	NIPA Column*	Crude NIPA	2,854 lb/hr.	03-A-1229

\* This emission unit has been idled. The facility shall notify the Department before this emission unit is put back into service.

---

**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 unit at this time.

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 57

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (acfm): 0.13

Exhaust Temperature (°F): 130

Discharge Style: Vertical Obstructed

Authority for Requirement: Iowa DNR Construction Permit 03-A-1229

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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: EP 404**

Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
EU-9TK-047	Acetone Storage Tank	Acetone	32,000 gallons	11-A-015

---

**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. For the first twelve (12) months of operation, determine
  - a. the number of shutdowns,
  - b. the amount of contaminated acetone, and
  - c. the amount of hazardous air pollutant (HAP) emissions
  - d. for each month of operation.
2. After the first twelve (12) months of operation, determine
  - a. the number of shutdowns,
  - b. the amount of contaminated acetone, and
  - c. the amount of hazardous air pollutant (HAP) emissions
  - d. on a rolling twelve (12) month basis for each month of operation.
3. Per 40 CFR §60.116b(c), the owner or operator shall maintain a record of:
  - a. The VOL (volatile organic liquid) stored,
  - b. The period of storage, and
  - c. The maximum true vapor pressure of that VOL during the respective storage period.
4. Per 40 CFR §60.116b(d), the owner or operator shall notify the Administrator within thirty (30) days when the maximum true vapor pressure of the liquid exceeds 27.6 kilopascals (kPa).

Authority for Requirement: Iowa DNR Construction Permit 11-A-015  
567 IAC 23.1(2)"ddd"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 45  
Stack Opening, (inches, dia.): 4  
Exhaust Flow Rate (scfm): Displacement  
Exhaust Temperature (°F): Ambient  
Discharge Style: Downward  
Authority for Requirement: Iowa DNR Construction Permit 11-A-015

The temperature and flowrate 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 either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**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"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

### **G2. Permit Expiration**

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *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 submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, 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 U.S. EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. 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. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. 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. Initial 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 initial 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 initial report may be made by electronic mail (E-mail), 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 initial 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 situation 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 fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *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 (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));.
- e. The changes comply with all applicable requirements.
- f. For each such 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 does 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 Title V Permit Modification.**

- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
  - i. Do not violate any applicable requirement;
  - 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 an 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 under rule 567 - 22.113(455B).
- 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 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, the existing permit terms and conditions it seeks to modify may be enforced against the facility.

### 3. Significant Title V 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, as those requirements that apply to Title V issuance and renewal.

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 22.111-567 IAC 22.113

#### **G19. Duty to Obtain Construction Permits**

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. 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 (567 IAC 23.1(3)"a"); training fires and controlled burning of a demolished building (567 IAC 23.2).

#### **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. 567 IAC 23.2 *except* 23.2(3)"j"; 567 IAC 23.2(3)"j" - *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)*

5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

### **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 consistent with the requirements of *567 IAC 22.111(1)*. *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. 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. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. 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  
Windsor Heights, IA 50324  
(515) 725-9545

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  
U.S. EPA Region 7  
Air Permits and Compliance Branch  
11201 Renner Blvd.  
Lenexa, KS 66219  
(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  
Windsor Heights, IA 50324  
(515) 725-9500

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**

7900 Hickman Road, Suite #200  
Windsor Heights, IA 50324  
(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**

Air Quality Branch  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

## **V. Appendix A: Web Links for 40 CFR 63 Subparts FFFF & MMM**

**Subpart FFFF <http://www.ecfr.gov/cgi-bin/text-idx?node=sp40.13.63.ffff>**

**Subpart MMM <http://www.ecfr.gov/cgi-bin/text-idx?node=sp40.12.63.mmm>**

**Subpart DDDDD <http://www.ecfr.gov/cgi-bin/text-idx?node=sp40.14.63.ddddd>**