

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

**Name of Permitted Facility: Cambrex Charles City, Inc.**

**Facility Location: 1205 11<sup>th</sup> St., Charles City, IA 50616**

**Air Quality Operating Permit Number: 15-TV-007**

**Expiration Date: June 3, 2020**

**Permit Renewal Application Deadline: December 3, 2019**

**EIQ Number: 92-4536**

**Facility File Number: 34-01-015**

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**Responsible Official**

**Name: Joe Nettleton**

**Title: Vice President of Operations, Site Manager**

**Mailing Address: 1205 11<sup>th</sup> St., Charles City, IA 50616**

**Phone #: (641) 257-1051**

**Permit Contact Person for the Facility**

**Name: Eric Mayhew**

**Title: Environmental Engineer**

**Mailing Address: 1205 11<sup>th</sup> St., Charles City, IA 50616**

**Phone #: (641) 257-5448**

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

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

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Lori Hanson, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

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

### Pollutants

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

# I. Facility Description and Equipment List

Facility Name: Cambrex Charles City, Inc.

Permit Number: 15-TV-007

Facility Description: Medicinal Chemicals & Botanicals Production (SIC 2833)

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## Equipment List<sup>(1)</sup>

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<sup>(1)</sup> Pursuant to 567 IAC 22.101(1)"c" any source that is required to obtain a Title V operating permit solely because of a NESHAP requirement, and which is not a major source, is required to obtain a Title V permit only for the emission unit(s) and related equipment causing the source to be subject to the Title V program. There are other emission units at this facility that are not included in the Title V operating permit.

<b>Emission Point Number</b>	<b>Emission Unit Number</b>	<b>Emission Unit Description</b>	<b>IDNR Construction Permit Number</b>
EP 303	See Appendix A	Pharma I Production	95-A-445-S19
EP 304	R-3142	Reactor (Bypass)	12-A-561-S1
	R-3144	Reactor (Bypass)	
EP 306	R-3150	Reactor Tanks (Bypass)	13-A-176-S1
EP 308	R-3160	Hydrogen Bypass Vent	14-A-626
	R-3186	Hydrogen Bypass Vent	

## II. Plant-Wide Conditions

Facility Name: Cambrex Charles City, Inc.  
Permit Number: 15-TV-007

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

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### Permit Duration

The term of this permit is: Five (5) years from permit issuance  
Commencing on: June 4, 2015  
Ending on: June 3, 2020

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

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### Emission Limits

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

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"

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## Facility Wide Requirements

*All equipment located at the facility shall comply with the following requirements. These requirements do apply to a number of pieces of equipment that are not subject to Title V permitting. The facility shall consider emissions from all equipment when certifying compliance on the Annual Compliance Certification and Semi-Annual Monitoring Reports.*

### Emission Limits

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 98 tons/yr.

Authority for Requirement: Iowa DNR Construction Permits 95-A-445-S19, 12-A-561-S1, 13-A-176-S1, 14-A-626, 13-A-081

Pollutant: Single Hazardous Air Pollutant (HAP)

Emission Limit(s): 9.4 tons/yr.

Authority for Requirement: Iowa DNR Construction Permits 95-A-445-S19, 12-A-561-S1, 13-A-176-S1, 14-A-626, 13-A-081

Pollutant: Total Hazardous Air Pollutant (HAP)

Emission Limit(s): 24.4 tons/yr.

Authority for Requirement: Iowa DNR Construction Permits 95-A-445-S19, 12-A-561-S1, 13-A-176-S1, 14-A-626, 13-A-081

### 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 the following monthly records:
  - a. The total monthly VOC emission rate from all emissions units (vent and fugitive) at the facility (tons).
  - b. The rolling, 12-month total of the VOC emission rate from all emission units (vent and fugitive) at the facility (tons).
  - c. The rolling, 12-month total of each HAP emitted from the facility (vent and fugitive) (tons).
  - d. The rolling, 12-month total of total HAPs emitted from facility (vent and fugitive) (tons).
2. The permittee shall submit semi-annual reports on VOC and HAP emissions from the facility. These reports shall contain the following information:
  - a. The facility wide emissions of each HAP for each month of the reporting period.
  - b. The facility wide emissions of total HAPs for each month of the reporting period.
  - c. The facility wide emissions of VOC for each month of the reporting period.
  - d. The rolling 12-month total of facility wide emissions of VOC, individual HAP and total HAPs.

The reports shall be submitted by August 1 and February 1 of each year. The August report shall cover January through June. The February report shall cover July through December.

3. If requested by the Iowa DNR - Air Quality Bureau, the permittee shall submit monthly emissions information for each process and emissions unit at the facility.
4. The permittee shall submit deviation reports that identify all exceedances of the rolling 12-month emission limitations for VOC and HAPs. The report shall be submitted no later than thirty (30) days from the end of the month in which the exceedance had occurred.

Authority for Requirement: Iowa DNR Construction Permits 95-A-445-S19, 12-A-561-S1, 13-A-176-S1, 14-A-626, 13-A-081

NESHAP Requirements:

The requirements of 40 CFR 63 Subpart VVVVVV - National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources are applicable to the equipment listed in this Title V permit while producing a chemical subject to this Subpart. The following are the Subpart VVVVVV requirements for affected Chemical Manufacturing Process Units (CMPU).

Applicable management practices 63.11495"a"(1), (3), (4), (5) & "b"(1), (2), (3) while in Subpart VVVVVV service, specifically:

Standard	Operational or Emission Limit			
40 CFR 63.11495(a)(1)	Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning.			
40 CFR 63.11495(a)(3)	Use Method 21 of 40 CFR part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection	AND Inspections must be conducted while the subject CMPU is operating.	AND No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or	AND You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph

	<p>conducted in accordance with paragraph (a)(3)(ii) of this section are due to a condition other than loss of HAP</p>		<p>metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.</p>	<p>(a)(4), a leak will be considered “repaired” if a condition specified in paragraph (a)(4)(i), (ii), or (iii) of this section is met.  (i) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or  (ii) No bubbles are observed at potential leak sites during a leak check using soap solution, or  (iii) The system will hold a test pressure.</p>
<p>40 CFR 63.11495(b)</p>	<p>Small heat exchange systems. For each heat exchange system subject to this subpart with a cooling water flow rate less than 8,000 gallons per minute (gal/min) and not meeting one or more of the conditions in § 63.104(a), you must comply with paragraphs (b)(1) through (3) of this section.</p>	<p>The owner or operator must develop and operate in accordance with a heat exchange system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the cooling water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water,</p>	<p>The owner or operator must perform repairs to eliminate the leak and any indications of a leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined by § 63.104(b)(6), within 45 calendar days</p>	

		and/or chemical addition rates. You must conduct inspections at least once per quarter, even if the previous inspection determined that the indications of a leak did not constitute a leak as defined by § 63.104(b)(6).	after indications of the leak are identified, or you must document the reason for any delay of repair in your next semiannual compliance report.	
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General Duty requirements 63.11495"d", specifically:

Standard	Operational or Emission Limit			
40 CFR 63.11495(d)	At all times, The owner or operator must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.			

Calculating uncontrolled Organic HAP emissions from batch process vents 63.11496"a" and "d" while in Subpart VVVVVV service, specifically:

Standard	Operational or Emission Limit			
40 CFR 63.11496(a)	The owner or operator must determine the sum of actual organic HAP emissions from all of your batch process vents within a CMPU subject to this subpart using			

	process knowledge, engineering assessment, or test data. Emissions for a standard batch in a process may be used to represent actual emissions from each batch in that process.			
40 CFR 63.11496(d)	Halogenated streams. You must determine if an emission stream is a halogenated vent stream by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v).	Alternatively, you may elect to designate the emission stream as halogenated.		

Wastewater requirements 63.11498 while in Subpart VVVVVV service, specifically:

<b>Standard</b>	<b>Operational or Emission Limit</b>			
40 CFR 63.11498(a)(1)	The owner or operator must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data.	Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream.		

Notification, recordkeeping, and reporting requirements 63.11501, specifically:

<b>Standard</b>	<b>Operational or Emission Limit</b>			
40 CFR 63.11501	You must submit semiannual compliance reports that contain the	AND Reports are required only for semiannual periods during which		

	information specified in paragraphs (d)(1) through (7) of this section, as applicable.	you experienced any of the events described in paragraphs (d)(1) through (8) of this section.		
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Additional, equipment-specific Subpart VVVVVV requirements are provided in Section III.

Authority for Requirement: 40 CFR 63 Subpart VVVVVV  
567 IAC 23.1(4)"ev"

### III. Emission Point-Specific Conditions

Facility Name: Cambrex Charles City, Inc.  
Permit Number: 15-TV-007

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#### Emission Point ID Number: EP 303

##### Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Construction Permit
Various	Pharma I Production	CE-303: Main Scrubber	Pharmaceutical Raw Materials	95-A-445-S19

Please see Appendix A for the total list of equipment associated with this emission point.

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##### Applicable Requirements

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

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

Pollutant: Opacity

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

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require 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>10</sub>

Emission Limit(s): 1.03 lb/hr.

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19

Pollutant: Particulate Matter

Emission Limit(s): 1.03 lb/hr., 0.1 gr/dscf

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19  
567 IAC 23.3(2)"a"

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

Emission Limit(s): 2.9 tons/yr., 24.03 lbs/batch

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19

Pollutant: Carbon Monoxide

Emission Limit(s): 5.14 tons/yr.

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19

### **Operational Limits & Requirements**

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

Control equipment parameters:

1. A combination of the following control equipment shall be employed to control VOC and HAP emissions from the Pharma I production facility:
  - a. Three (3) EST Venturi Scrubbers
  - b. Pre-Scrubber
  - c. Condenser
  - d. Main Scrubber
  - e. Vapor Phase Carbon Adsorption Unit
  - f. Vapor Condensers (H-3110A, H-3110B). H-3110A and H-3110B each consists of two condensers: a glycol condenser followed by a cryogenic condenser. If used, normally one condenser train will be operated.
  - g. Venturi scrubber C-3118 for acid vapor control.
2. As applicable, the owner or operator shall operate the control equipment at all times when emissions are vented to them.
3. The main scrubber must be operating when any process is active. An automated system must be installed, calibrated and maintained that uses audible and visual alarms to warn of scrubber malfunctions.
4. The main scrubber water flow rate shall be maintained at a value of not less than 42 gallons per minute at all times while the emissions unit is in operation.
5. The vapor phase carbon adsorption unit shall have a 95% removal efficiency for VOC and HAP.
6. Ionization detectors that service the carbon adsorption unit shall be operated and maintained according to manufacturer's specifications.
7. The vapor condensers H-3110A and H-3110B shall have a 95% removal efficiency for VOC and HAP emissions.
8. The owner or operator shall install, calibrate, operate, and maintain a temperature monitoring device(s) for the H-3110A and H-3110B condenser trains according to manufacturer's specifications and instructions. The device(s) shall measure the exhaust temperature after the final condenser. The device(s) shall be capable of providing a continuous record of the temperature when the condensers are in operation.
9. The average daily exhaust temperature after the final condenser of the H-3110A and/or H-3110B condenser trains shall be maintained at or below -47 degrees Celsius when the condensers are in operation.

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 conduct monitoring per 40 CFR §60.116b(a) and 40 CFR

§60.116b(b). (T-1232 only)

2. The equipment used to make each product (i.e. chemical process) may exhaust through several emission points (controlled or uncontrolled). The permittee shall maintain records on the identification of each process and the identification of the process's emission points.
3. The permittee shall maintain the following records for each batch run:
  - a. The identification and amount (gallons or pounds) of all materials used in the development of the emission factors for the purpose of determining the emission rates from the equipment covered by this permit.
  - b. The identification and quantity of each final product generated.
  - c. The uncontrolled vent emission rate of each HAP<sup>1</sup> and VOC for each batch of chemicals processed in the equipment covered by permit 95-A-445-S19. These emissions rates shall be based on emission factors developed by the permittee. The permittee shall develop emission factors for the amount of uncontrolled VOC and HAPs emitted, either for each final product generated or for each batch run in the equipment covered by permit 95-A-445-S19. The permittee's calculation of each emission factor shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor. The uncontrolled vent emission rates shall be determined by using one of the following methods:
    - i. For pharmaceutical products, for emissions from vapor displacement, purging, heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
    - ii. For other emission episodes in the production of pharmaceutical products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
    - iii. For non-pharmaceutical products, appropriate programs for estimating emissions (including US EPA 1978 CTG equations, US EPA 1994 ACT equations, and the pharmaceutical MACT equations) shall be used.
    - iv. For non-pharmaceutical products where no U.S. EPA emission calculations are applicable, standard engineering principles shall be used to best represent the emission rate from the unit.
    - v. For breathing and working losses from storage tanks, Version 4.0 (or better) of the TANKS software shall be used.
4. The permittee shall maintain the following monthly records:
  - a. The uncontrolled vent VOC emission rates from each VOC emitting process. To estimate uncontrolled VOC emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

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<sup>1</sup> Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act.

$$\text{VOC} = (\text{Ef} \times \text{PP})$$

where:

VOC = pounds of VOC emitted from each product

Ef = VOC emission factor (lbs VOC/ lb product) for each product

PP = Pounds of each product made that month

- b. The uncontrolled vent emission rates of each HAP and total HAPs from each HAP emitting process. To estimate uncontrolled individual HAP emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{HAP} = (\text{Ef} \times \text{PP})$$

where:

HAP = pounds of each HAP emitted from each product

Ef = HAP emission factor (lbs HAP/ lb product) for each product

PP = Pounds of each product made that month

Total uncontrolled HAP emissions from each HAP emitting process shall be determined by summing the emissions of individual HAPs.

- c. The controlled vent emission rate of each HAP and VOC for each batch of chemicals processed in the equipment covered by permit 95-A-445-S19. The controlled vent emission rates shall be determined by using one of the following methods:
- i. For water soluble organic HAPs or VOC, multiply the uncontrolled emission rate by (1 - 0.95), where 0.95 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
  - ii. For inorganic acidic HAP emissions, multiply the uncontrolled emission rate by (1 - 0.98), where 0.98 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
  - iii. For other HAPs and VOCs, the solubility of the pollutant in the respective scrubber media shall be used to determine the scrubber's removal efficiency. The uncontrolled emissions rate should be multiplied by (1 - x), where x is the control efficiency of the scrubber for the air contaminant as determined by its solubility in the scrubber media. This takes into consideration the reduced control efficiency due to insolubility of certain air contaminants in the scrubbing media.
  - iv. For VOC and HAP emissions controlled by the carbon adsorption unit, multiply the uncontrolled emission rate by (1 - 0.95), where 0.95 represents the control efficiency of the vapor phase carbon adsorption unit. This control efficiency is based on the manufacturer's design

specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the carbon adsorption's control efficiency.

- v. For VOC and HAP emissions controlled by condensers H-3110A and/or H-3110B, multiply the uncontrolled emission rate by  $(1 - 0.95)$ , where 0.95 represents the control efficiency of the condensers. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the condensers' control efficiency.
5. The permittee shall properly operate and maintain equipment to monitor the scrubber water flow rate of each of the wet scrubbers. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the scrubber water flow rate, in gallons per minute, on a daily basis. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
6. When the process equipment can emit acid gases, the permittee shall properly operate and maintain equipment to monitor the pH of the scrubber liquor of each of the wet scrubbers. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pH of the scrubber liquor, on a daily basis. This requirement shall not apply on the days that the scrubber or the equipment that the scrubber controls is not in operation.
7. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Ionization detectors that service the carbon adsorption unit.
8. The facility shall maintain a design evaluation which shows that the H-3110A and H-3110B condensers have a 95% removal efficiency for VOC and HAP emissions.
9. The permittee shall collect and record the exhaust temperature after the final condenser in the H-3110A and H-3110B condenser trains. The facility shall also calculate and record the daily average exhaust temperature. This requirement shall not apply on the days when the condenser train or the equipment that the condenser train controls is not in operation.
10. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the H-3110A and H-3110B condensers and the associated monitoring devices.

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19  
567 IAC

NESHAP Requirements:

The requirements of 40 CFR 63 Subpart VVVVVV - National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources are applicable to the equipment listed in this Title V permit while producing a chemical subject to this Subpart. The following are the equipment-specific Subpart VVVVVV requirements.

Applicable control requirements 63.11496"a" and Table 2, while in Subpart VVVVVV operation, specifically:

Standard	Operational or Emission Limit			
40 CFR 63.11496(a) and Table 2	You must comply with the requirements in paragraphs (a)(1) through (4) of this section for organic HAP emissions from your batch process vents for each CPMU using Table 1 organic HAP. If uncontrolled organic HAP emissions from all batch process vents from a CPMU subject to this subpart are equal to or greater than 10,000 pounds per year (lb/yr), you must also comply with the emission limits and other requirements in Table 2 to this subpart.	Table 2 (1)a. Reduce collective uncontrolled total organic HAP emissions from the sum of all batch process vents by $\geq 85$ percent by weight or to $\leq 20$ ppmv by routing emissions from a sufficient number of the batch process vents through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of §63.982(c) and the requirements referenced therein		

Authority for Requirement: 40 CFR 63 Subpart VVVVVV  
567 IAC 23.1(4)"ev"

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 58

Stack Opening, (inches, dia.): 18

Exhaust Flow Rate (scfm): 1,500 – 4,000

Exhaust Temperature (°F): 70 – 160

Discharge Style: Vertical Unobstructed

Authority for Requirement: Iowa DNR Construction Permit 95-A-445-S19

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: EP 304****Associated Equipment**

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Reactor Capacity</b>	<b>Construction Permit</b>
R-3142	Reactor (Bypass)	Pharmaceutical Raw Materials	2,000 gallons	12-A-561-S1
R-3144	Reactor (Bypass)	Pharmaceutical Raw Materials	2,000 gallons	

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

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

See "Plant-Wide Conditions" for applicable emission limits.

**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 equipment used to make each product (i.e. chemical process) may exhaust through several emission points (controlled or uncontrolled). The permittee shall maintain records on the identification of each process and the identification of the process's emission points.
2. The permittee shall maintain the following records for each batch run:
  - a. The identification and amount (gallons or pounds) of all materials used in the development of the emission factors for the purpose of determining the emission rates from the equipment covered by permit 12-A-561-S1.
  - b. The identification and quantity of each final product generated.
  - c. The uncontrolled vent emission rate of each HAP<sup>1</sup> and VOC for each batch of chemicals processed in the equipment covered by permit 12-A-561-S1. These emissions rates shall be based on emission factors developed by the permittee. The permittee shall develop emission factors for the amount of uncontrolled VOC and HAPs emitted, either for each final product generated or for each batch run in the equipment covered by this permit. The permittee's calculation of each emission factor

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<sup>1</sup> Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act. For a list of HAPs, please refer to Table A that is attached to Form 112(g) which is part of the Air Construction Permit Application or contact the Iowa DNR - Air Quality Bureau.

shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor. The uncontrolled vent emission rates shall be determined by using one of the following methods:

- i. For pharmaceutical products, for emissions from vapor displacement, purging, heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
  - ii. For other emission episodes in the production of pharmaceutical products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
  - iii. For non-pharmaceutical products, appropriate programs for estimating emissions (including US EPA 1978 CTG equations, US EPA 1994 ACT equations, and the pharmaceutical MACT equations) shall be used.
  - iv. For non-pharmaceutical products where no U.S. EPA emission calculations are applicable, standard engineering principles shall be used to best represent the emission rate from the unit.
  - v. For breathing and working losses from storage tanks, Version 4.0 (or better) of the TANKS software shall be used.
3. The permittee shall maintain the following monthly records:
- a. The uncontrolled vent VOC emission rates from each VOC emitting process. To estimate uncontrolled VOC emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{VOC} = (\text{Ef} \times \text{PP})$$

where:

VOC = pounds of VOC emitted from each product

Ef = VOC emission factor (lbs VOC/ lb product) for each product

PP = Pounds of each product made that month

- b. The uncontrolled vent emission rates of each HAP and total HAPs from each HAP emitting process. To estimate uncontrolled individual HAP emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{HAP} = (\text{Ef} \times \text{PP})$$

where:

HAP = pounds of each HAP emitted from each product

Ef = HAP emission factor (lbs HAP/ lb product) for each product

PP = Pounds of each product made that month

Total uncontrolled HAP emissions from each HAP emitting process shall be determined by summing the emissions of individual HAPs.

- c. The controlled vent emission rate of each HAP and VOC for each batch of chemicals processed in the equipment covered by permit 12-A-561-S1. The controlled vent emission rates shall be determined by using one of the following methods:

- i. For water soluble organic HAPs or VOC, multiply the uncontrolled emission rate by  $(1 - 0.95)$ , where 0.95 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- ii. For inorganic acidic HAP emissions, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- iii. For other HAPs and VOCs, the solubility of the pollutant in the respective scrubber media shall be used to determine the scrubber's removal efficiency. The uncontrolled emissions rate should be multiplied by  $(1 - x)$ , where  $x$  is the control efficiency of the scrubber for the air contaminant as determined by its solubility in the scrubber media. This takes into consideration the reduced control efficiency due to insolubility of certain air contaminants in the scrubbing media.
- iv. For VOC and HAP emissions controlled by the carbon adsorption unit, multiply the uncontrolled emission rate by  $(1 - 0.95)$ , where 0.95 represents the control efficiency of the vapor phase carbon adsorption unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- v. For VOC and HAP emissions controlled by the Cryogenic Vapor Recovery Unit, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the Cryogenic Vapor Recovery Unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the Cryogenic Vapor Recovery Unit's control efficiency.

Authority for Requirement: Iowa DNR Construction Permit 12-A-561-S1

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 30

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (scfm): 0 – 1,800

Exhaust Temperature (°F): 0 - 160

Discharge Style: Vertical w/raincap or obstruction

Authority for Requirement: Iowa DNR Construction Permit 13-A-561-S1

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Number: EP 306

### Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Reactor Capacity	Construction Permit
R-3150	Reactor Tanks (Bypass)	Pharmaceutical Raw Materials	4,000 gallons	13-A-176-S1

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### Applicable Requirements

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

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

See "Plant-Wide Conditions" for applicable emission limits.

#### 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 equipment used to make each product (i.e. chemical process) may exhaust through several emission points (controlled or uncontrolled). The permittee shall maintain records on the identification of each process and the identification of the process's emission points.
2. The permittee shall maintain the following records for each batch run:
  - a. The identification and amount (gallons or pounds) of all materials used in the development of the emission factors for the purpose of determining the emission rates from the equipment covered by permit 13-A-176-S1.
  - b. The identification and quantity of each final product generated.
  - c. The uncontrolled vent emission rate of each HAP<sup>1</sup> and VOC for each batch of chemicals processed in the equipment covered by permit 13-A-176-S1. These emissions rates shall be based on emission factors developed by the permittee. The permittee shall develop emission factors for the amount of uncontrolled VOC and HAPs emitted, either for each final product generated or for each batch run in the equipment covered by permit 13-A-176-S1. The permittee's calculation of each emission factor shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, during the production of a specific

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<sup>1</sup> Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act. For a list of HAPs, please refer to Table A that is attached to Form 112(g) which is part of the Air Construction Permit Application or contact the Iowa DNR - Air Quality Bureau.

final product to confirm the accuracy of the emission factor. The uncontrolled vent emission rates shall be determined by using one of the following methods:

- i. For pharmaceutical products, for emissions from vapor displacement, purging, heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
  - ii. For other emission episodes in the production of pharmaceutical products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
  - iii. For non-pharmaceutical products, appropriate programs for estimating emissions (including US EPA 1978 CTG equations, US EPA 1994 ACT equations, and the pharmaceutical MACT equations) shall be used.
  - iv. For non-pharmaceutical products where no U.S. EPA emission calculations are applicable, standard engineering principles shall be used to best represent the emission rate from the unit.
  - v. For breathing and working losses from storage tanks, Version 4.0 (or better) of the TANKS software shall be used.
3. The permittee shall maintain the following monthly records:
- a. The uncontrolled vent VOC emission rates from each VOC emitting process. To estimate uncontrolled VOC emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{VOC} = (\text{Ef} \times \text{PP})$$

where:

VOC = pounds of VOC emitted from each product

Ef = VOC emission factor (lbs VOC/ lb product) for each product

PP = Pounds of each product made that month

- b. The uncontrolled vent emission rates of each HAP and total HAPs from each HAP emitting process. To estimate uncontrolled individual HAP emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{HAP} = (\text{Ef} \times \text{PP})$$

where:

HAP = pounds of each HAP emitted from each product

Ef = HAP emission factor (lbs HAP/ lb product) for each product

PP = Pounds of each product made that month

Total uncontrolled HAP emissions from each HAP emitting process shall be determined by summing the emissions of individual HAPs.

- c. The controlled vent emission rate of each HAP and VOC for each batch of chemicals processed in the equipment covered by permit 13-A-176-S1. The controlled vent emission rates shall be determined by using one of the following methods:
  - i. For water soluble organic HAPs or VOC, multiply the uncontrolled emission rate by (1 - 0.95), where 0.95 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications

- and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- ii. For inorganic acidic HAP emissions, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
  - iii. For other HAPs and VOCs, the solubility of the pollutant in the respective scrubber media shall be used to determine the scrubber's removal efficiency. The uncontrolled emissions rate should be multiplied by  $(1 - x)$ , where  $x$  is the control efficiency of the scrubber for the air contaminant as determined by its solubility in the scrubber media. This takes into consideration the reduced control efficiency due to insolubility of certain air contaminants in the scrubbing media.
  - iv. For VOC and HAP emissions controlled by the carbon adsorption unit, multiply the uncontrolled emission rate by  $(1 - 0.95)$ , where 0.95 represents the control efficiency of the vapor phase carbon adsorption unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
  - v. For VOC and HAP emissions controlled by the Cryogenic Vapor Recovery Unit, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the Cryogenic Vapor Recovery Unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the Cryogenic Vapor Recovery Unit's control efficiency.

Authority for Requirement: Iowa DNR Construction Permit 13-A-176-S1

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 54

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (scfm): 0 -100

Exhaust Temperature (°F): 0 - 95

Discharge Style: Vertical obstructed

Authority for Requirement: Iowa DNR Construction Permit 13-A-176-S1

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: EP 308**Associated Equipment

<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Raw Material</b>	<b>Rated Capacity</b>	<b>Construction Permit</b>
R-3160	Hydrogen Bypass Vent	Pharmaceutical Raw Materials		14-A-626
R-3186	Hydrogen Bypass Vent	Pharmaceutical Raw Materials		

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

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

See "Plant-Wide Conditions" for applicable emission limits.

**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 equipment used to make each product (i.e. chemical process) may exhaust through several emission points (controlled or uncontrolled). The permittee shall maintain records on the identification of each process and the identification of the process's emission points.
2. The permittee shall maintain the following records for each batch run:
  - a. The identification and amount (gallons or pounds) of all materials used in the development of the emission factors for the purpose of determining the emission rates from the equipment covered by permit 14-A-626.
  - b. The identification and quantity of each final product generated.
  - c. The uncontrolled vent emission rate of each HAP<sup>1</sup> and VOC for each batch of chemicals processed in the equipment covered by permit 14-A-626. These emission rates shall be based on emission factors developed by the permittee. The permittee shall develop emission factors for the amount of uncontrolled VOC and HAPs emitted, either for each final product generated or for each batch run in the equipment covered by permit 14-A-626. The permittee's calculation of each emission factor shall be subject to the review and approval of the Iowa DNR - Air Quality Bureau. If necessary, the permittee shall conduct emission testing, at the request of the Iowa

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<sup>1</sup> Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act. For a list of HAPs, please refer to Table A that is attached to Form 112(g) which is part of the Air Construction Permit Application or contact the Iowa DNR - Air Quality Bureau.

DNR - Air Quality Bureau, during the production of a specific final product to confirm the accuracy of the emission factor. The uncontrolled vent emission rates shall be determined by using one of the following methods:

- i. For pharmaceutical products, for emissions from vapor displacement, purging, heating, depressurization, gas evolution, air drying, and empty vessel purging, the appropriate equations from §63.1257(d)(2)(i) (40 CFR Part 63, Subpart GGG) shall be used.
  - ii. For other emission episodes in the production of pharmaceutical products, appropriate estimation methods as stated in § 63.1257(d)(2)(ii) (40 CFR Part 63, Subpart GGG) shall be used.
  - iii. For non-pharmaceutical products, appropriate programs for estimating emissions (including US EPA 1978 CTG equations, US EPA 1994 ACT equations, and the pharmaceutical MACT equations) shall be used.
  - iv. For non-pharmaceutical products where no U.S. EPA emission calculations are applicable, standard engineering principles shall be used to best represent the emission rate from the unit.
  - v. For breathing and working losses from storage tanks, Version 4.0 (or better) of the TANKS software shall be used.
3. The permittee shall maintain the following monthly records:
- a. The uncontrolled vent VOC emission rates from each VOC emitting process. To estimate uncontrolled VOC emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{VOC} = (\text{Ef} \times \text{PP})$$

where:

VOC = pounds of VOC emitted from each product

Ef = VOC emission factor (lbs VOC/ lb product) for each product

PP = Pounds of each product made that month

- b. The uncontrolled vent emission rates of each HAP and total HAPs from each HAP emitting process. To estimate uncontrolled individual HAP emissions from the chemical manufacturing (i.e. pharmaceuticals and non-pharmaceuticals) operations, the following equation shall be used for each product:

$$\text{HAP} = (\text{Ef} \times \text{PP})$$

where:

HAP = pounds of each HAP emitted from each product

Ef = HAP emission factor (lbs HAP/ lb product) for each product

PP = Pounds of each product made that month

Total uncontrolled HAP emissions from each HAP emitting process shall be determined by summing the emissions of individual HAPs.

- c. The controlled vent emission rate of each HAP and VOC for each batch of chemicals processed in the equipment covered by permit 14-A-626. The controlled vent emission rates shall be determined by using one of the following methods:
  - i. For water soluble organic HAPs or VOC, multiply the uncontrolled emission rate by (1 - 0.95), where 0.95 represents the control efficiency of the scrubber.

This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.

- ii. For inorganic acidic HAP emissions, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the scrubber. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- iii. For other HAPs and VOCs, the solubility of the pollutant in the respective scrubber media shall be used to determine the scrubber's removal efficiency. The uncontrolled emissions rate should be multiplied by  $(1 - x)$ , where  $x$  is the control efficiency of the scrubber for the air contaminant as determined by its solubility in the scrubber media. This takes into consideration the reduced control efficiency due to insolubility of certain air contaminants in the scrubbing media.
- iv. For VOC and HAP emissions controlled by the carbon adsorption unit, multiply the uncontrolled emission rate by  $(1 - 0.95)$ , where 0.95 represents the control efficiency of the vapor phase carbon adsorption unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the scrubber's control efficiency.
- v. For VOC and HAP emissions controlled by the Cryogenic Vapor Recovery Unit, multiply the uncontrolled emission rate by  $(1 - 0.98)$ , where 0.98 represents the control efficiency of the Cryogenic Vapor Recovery Unit. This control efficiency is based on the manufacturer's design specifications and performance data. If necessary, the permittee shall conduct emission testing, at the request of the Iowa DNR - Air Quality Bureau, to verify the estimate of the Cryogenic Vapor Recovery Unit's control efficiency.

Authority for Requirement: Iowa DNR Construction Permit 14-A-626

**Emission Point Characteristics**

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

Stack Height, (ft, from the ground): 54  
Stack Opening, (inches, dia.): 2  
Exhaust Flow Rate (scfm): 0 - 32  
Exhaust Temperature (°F): 0 - 74  
Discharge Style: Vertical obstructed  
Authority for Requirement: Iowa DNR Construction Permit 14-A-626

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

**Monitoring Requirements**

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

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

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

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

Authority for Requirement: 567 IAC 22.108(3)

## **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: Pharma I Equipment List

<b>Emission Unit Description</b>	<b>EU ID</b>	<b>Maximum Rated Capacity</b>
Centrifuge	C-3709	
Column	EV-3714-C-1401	
Dryer	D-3220	230 ft <sup>3</sup>
Dryer	D-3790	7.1 ft <sup>3</sup>
Evaporator	EV-3714	
Filter	F-3118	
Filter	F-3123	
Filter	F-3140	7 m <sup>2</sup>
Filter	F-3168	6 m <sup>2</sup>
Filter	F-3708	
Reactor	R-3142	2,000 gallons
Reactor	R-3144	2,000 gallons
Reactor	R-3146	2,000 gallons
Reactor	R-3148	3,000 gallons
Reactor	R-3149	3,000 gallons
Reactor	R-3150	4,000 gallons
Reactor	R-3160	2,500 gallons
Reactor	R-3162	2,500 gallons
Reactor	R-3166	4,000 gallons
Reactor	R-3178	1,000 gallons
Reactor	R-3601	4,000 gallons
Reactor	R-3603	
Reactor	R-3701	
Reactor	R-3702	
Reactor	R-3703	
Tank	C-3709-T-0912	
Reactor	R-3164	4000 gallons
Tank	H-5002-T-3151	1,030 gallons
Tank	H-6402-T-3147	689 gallons
Tank	R-3142-T-4201	
Tank	R-3146-T-4620	
Tank	R-3701-T-0103	
Tank	R-3702-T-0203	
Tank	R-3703-T-0303	
Tank	T-1216	15,000 gallons
Tank	T-1217	15,000 gallons
Tank	T-1219	12,900 gallons
Tank	T-1232	20,000 gallons
Tank	T-1233	10,000 gallons
Tank	T-1243	15,000 gallons
Tank	T-1244	15,000 gallons

<b>Emission Unit Description</b>	<b>EU ID</b>	<b>Maximum Rated Capacity</b>
Tank	T-3104	4,000 gallons
Tank	T-3110	
Tank	T-3111	
Tank	T-3132	7,500 gallons
Tank	T-3133	7,500 gallons
Tank	T-3134	7,500 gallons
Tank	T-3135	7,500 gallons
Tank	T-3136	7,500 gallons
Tank	T-3137	7,500 gallons
Tank	T-3138	7,500 gallons
Tank	T-3141	150 gallons
Tank	T-3152	300 gallons
Tank	T-3163	
Tank	T-3176	500 gallons
Tank	T-3177	500 gallons
Tank	T-3178	2,000 gallons
Tank	T-3179	750 gallons
Tank	T-3180	750 gallons
Reactor - stainless steel	R-3186	1,000 gallons
Tank - glass lined horizontal tank	T-3143	2,000 gallons
Tank - glass lined receiver	T-6471	500 gallons
Tank - glass lined receiver	T-4271	500 gallons
Tank - stainless steel receiver	T-6207	300 gallons
Tank	T-3190	26 gallons
Tank	T-3191	500 gallons
Tank	T-3192	2 gallons
Tank	T-3221	
Tank	T-3602	500 gallons
Tank	T-3704	
Tank	T-3705	
Tank	T-3722	
Tank	T-3712	
Tank	T-3713	
Tank	T-3715	
Tank	T-5402	50 gallons
Tank	T-5502	50 gallons
Tank	VP-3153-T-5320	
Tank	VP-3225-T-2501	
Tank	VP-3710-T-1002	
Tank	VP-3760-T-6020	
Vacuum Pump System	VP-3153	
Vacuum Pump System	VP-3225	

<b>Emission Unit Description</b>	<b>EU ID</b>	<b>Maximum Rated Capacity</b>
Vacuum Pump System	VP-3710	

Equipment in Partially Soluble Hazardous Air Pollutant(s) (PSHAP) service may exhaust through the carbon adsorption unit, C-3106, or the vapor condensers H-3110A or H-3110B, then to the Pharma 1 Main Scrubber. PSHAP is defined in §63.1251 Subpart GGG.