

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

**Name of Permitted Facility: Valero Renewable Fuels Company,
LLC dba Valero Charles City Plant**

Facility Location: 1787 Quarry Road, Charles City, Iowa 50616

Air Quality Operating Permit Number: 15-TV-009R1

Expiration Date: May 3, 2025

Permit Renewal Application Deadline: November 3, 2024

EIQ Number: 92-6933

Facility File Number: 34-01-040

Responsible Official

Name: Chad Buffington

Title: Plant Manager

**Mailing Address: 1787 Quarry Road
Charles City, Iowa 50616**

Phone #: 641-715-3011

Permit Contact Person for the Facility

Name: Scott Melliere

Title: HSE Manager

**Mailing Address: 1787 Quarry Road
Charles City, Iowa 50616**

Phone #: 641-715-3015

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

For the Director of the Department of Natural Resources



Lori Hanson, Supervisor of Air Operating Permits Section

5/4/2020

Date

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Abbreviations

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

Pollutants

PM.....particulate matter
PM₁₀.....particulate matter ten microns or less in diameter
SO₂.....sulfur dioxide
NO_x.....nitrogen oxides
VOC.....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Valero Renewable Fuels Company, LLC dba Valero Charles City Plant
 Permit Number: 15-TV-009R1

Facility Description: Dry Mill Ethanol (SIC 2869)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit
S10	01	DDGS Dryer A	05-A-718-S4
	02	DDGS Dryer B	
	03	Heat Recovery Boiler/Thermal Oxidizer	
	04	DDGS Dryer C	
	05	DDGS Dryer D	
	06	Heat Recovery Boiler/Thermal Oxidizer	
	58	DDGS Cooling Drum	
	90	Distillation Process	
S20	07	Truck Receiving Dump Pit & Transfer Drag #1	05-A-719-S3
	08	Receiving Leg #1	
	09	Silo Fill Conveyor #1	
	10	Grain Silo #1	
	11	Silo Reclaim Conveyor #1	
	13	Truck Receiving Dump Pit & Transfer Drag #2	
	14	Receiving Leg #2	
	15	Silo Center Fill Conveyor #1	
	16	Grain Silo #2	
	17	Silo Reclaim Conveyor #2	
	61	Grain Silo #3	
	62	Grain Silo #4	
	63	Grain Silo #5	
	64	Rail Receiving Dump Pit & Drag Conveyor	
	65	Silo Reclaim Conveyor #3	
66	Silo Reclaim Conveyor #4		
67	Silo Reclaim Conveyor #5		

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit
	68	Hammermill Feed Silo	
S30	20	Hammermill #1	05-A-720-S3
	21	Hammermill #2	
	22	Hammermill #3	
	23	Hammermill #4	
	79	Rotary Scalper	
	85	Rotary Scalper	
	80	Scalping Bin 3B	
	82	Milled Corn Conveyor (CD-1372)	
	83	Blender Feed Screw	
	84	Slurry Blender	
S40	35	Batch Mash Fermenter #1	05-A-721-S5
	36	Batch Mash Fermenter #2	
	37	Batch Mash Fermenter #3	
	38	Batch Mash Fermenter #4	
	39	Batch Mash Fermenter #5	
	40	Batch Mash Fermenter #6	
	41	Batch Mash Fermenter #7	
	43	Batch Mash Fermenter #8	
	42	Beerwell	
S70	58	DDGS Cooler (Thermal Oxidizer Bypass)	05-A-724-S3
S75	49	DDGS Inclined Drag	05-A-722-S4
	50	DDGS Topfill Drag (Flat Storage)	
	52	DDGS Flat Storage Floor Drag	
	53	DDGS Recirc/Loadout Leg	
	54	DDGS Topfill Drag (Silo Recirc)	
	55	DDGS Loadout Drag	
	56	Truck Load Spout	
	69	DDGS Transfer Drag	
	70	DDGS Storage Leg	
	71	DDGS Topfill Drag	
	72	DDGS Storage Silo #1	
	73	DDGS Storage Silo #2	
	74	DDGS Reclaim Drag #1	
	75	DDGS Reclaim Drag #2	
	76	Rail Load Spout #1	
77	Rail Load Spout #2		
78	Rail Load Spout #3		
S80	59	Ethanol Loadout Vapor Combuster	05-A-725-S1
S90	60	Firewater Pump	05-A-726-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit
FS10	FS10	Truck Traffic	05-A-733-S2
FS40	FS40	Equipment Leaks	05-A-735-S2
FS80	FS80	Cooling Tower	05-A-734-S1
TK001	TK001	190 Proof Ethanol Storage Tank	05-A-727-S2
TK002	TK002	200 Proof Ethanol Storage Tank	05-A-728-S2
TK003	TK003	Denaturant Tank	05-A-729-S2
TK004	TK004	Denatured Ethanol Storage Tank	05-A-730-S2
TK005	TK005	Denatured Ethanol Storage Tank	05-A-731-S2
TK006	TK006	Fuel Additive Storage Tank	05-A-732-S2

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
PRV-BW	PRV and Boot for Beer Well
PRV-F1	PRV and Boot for Fermenter 1
PRV-F2	PRV and Boot for Fermenter 2
PRV-F3	PRV and Boot for Fermenter 3
PRV-F4	PRV and Boot for Fermenter 4
PRV-F5	PRV and Boot for Fermenter 5
PRV-F6	PRV and Boot for Fermenter 6
PRV-F7	PRV and Boot for Fermenter 7
PRV-F8	PRV and Boot for Fermenter 8
PRV-SV	PRV for Sieve Vaporizer
SS2	Ground Pile
SS3	WDGS and MDGS
SS-CO1	Corn Oil Loadout
SS-CO2	AOS Equipment Leaks
SS-CO3	Paved Road Emissions
SSTANKS	Miscellaneous Storage Tanks

II. Plant-Wide Conditions

Facility Name: Valero Renewable Fuels Company, LLC dba Valero Charles City Plant
Permit Number: 15-TV-009 R1

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

Permit Duration

The term of this permit is: Five (5) years
Commencing on: May 4, 2020
Ending on: May 3, 2025

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

Emission Limits

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

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO₂): 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 on or after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

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

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

NESHAP and NSPS

40 CFR 60 Subpart A Requirements

This facility is subject to General Provisions of Subpart A. The affected emission units are 03, 06, TK001 through TK005 and FS40. See Appendix A for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart A
567 IAC 23.1(2)

40 CFR 60 Subpart Db Requirements

This facility is subject to Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The affected emission units are 03 and 06. See Appendix A for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart Db
567 IAC 23.1(2) "ccc"

40 CFR 60 Subpart Kb Requirements

This facility is subject to the Standards of Performance for Volatile Organic Liquid storage vessels (including petroleum liquids). This is applicable for storage tanks constructed after July 1984. The affected emission units are storage tanks TK001 through TK005. See Appendix A for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart Kb
567 IAC 23.1(2) "ddd"

40 CFR 60 Subpart VV Requirements

This facility is subject to the Standards of Performance for Equipment leaks of VOC in the Synthetic Organic Chemicals Manufacturing industry. The affected emission unit is FS40 which encompasses all ethanol storage and handling sources. See Appendix A for a link to the Standard.

Authority for Requirements: 40 CFR 60 Subpart VV
567 IAC 23.1(2) "nn"

40 CFR 63 Subpart A Requirements

This facility is subject to General Provisions of Subpart A. The affected emission unit is 60. See Appendix A for a link to the Standard.

Authority for Requirements: 40 CFR 63 Subpart A
567 IAC 23.1(4)

40 CFR 63 Subpart ZZZZ Requirements

This facility is subject to National Emission Standards for Hazardous Air Pollutants for *Stationary Reciprocating Internal Combustion Engines* (RICE NESHAP). The affected emission unit is 60.

See Appendix B for a link to the Standard.

Authority for Requirements: 40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4) "cz"

III. Emission Point-Specific Conditions

Facility Name: Valero Renewable Fuels Company, LLC dba Valero Charles City Plant
 Permit Number: 15-TV-009R1

Emission Point ID Number: S10

Associated Emission Unit ID Numbers: See Table: Dryers, Boilers and Distillation
 Emissions Control Equipment ID Number: See Table: Dryers, Boilers and Distillation
 Emissions Control Equipment Description: See Table: Dryers, Boilers and Distillation
 Continuous Emissions Monitors ID Numbers: See Table: Dryers, Boilers and Distillation

Table: Dryers, Boilers and Distillation

Emission Unit Number	Emission Unit Description	Rated Capacity	Raw Material/Fuel	Control Equipment Description	Continuous Emissions Monitors ID Numbers
01	DDGS Dryer A	42.5 MMBtu/hr	Natural Gas	Multiclone (C60); Thermal Oxidizer (C10)	ME10A ME10B
02	DDGS Dryer B	42.5 MMBtu/hr	Natural Gas		
03	Thermal Oxidizer (TO)/Waste Heat Recovery Boiler	165 MMBtu/hr	Waste Heat	None (Emission Unit is located post control)	
04	DDGS Dryer C	42.5 MMBtu/hr	Natural Gas	Multiclone (C61); Thermal Oxidizer (C11)	
05	DDGS Dryer D	42.5 MMBtu/hr	Natural Gas		
06	Thermal Oxidizer (TO)/Waste Heat Recovery Boiler	165 MMBtu/hr	Waste Heat	None (Emission Unit is located post control)	
58	DDGS Cooling Drum	50 tons DDGS/hr	DDGS	Baghouse (C70); Thermal Oxidizer (C10 or C11)	
90	Distillation Process	Variable	Variable	Thermal Oxidizer (C10 or C11)	

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 %⁽¹⁾

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

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⁽¹⁾ An exceedance of the indicator opacity of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 14.10 lb/hr, 0.1 gr./dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-718-S4

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 14.10 lb/hr⁽⁵⁾

Authority for Requirement: DNR Construction Permit 05-A-718-S4

⁽⁵⁾ Based on facility wide PM₁₀, NO_x, CO, and SO₂ dispersion modeling analysis reviewed by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, NO_x, CO, and SO₂ emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS.

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 22.60 lb/hr⁽⁵⁾

Authority for Requirement: DNR Construction Permit 05-A-718-S4

⁽⁵⁾ Based on facility wide PM₁₀, NO_x, CO, and SO₂ dispersion modeling analysis reviewed by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, NO_x, CO, and SO₂ emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS.

Pollutant: Nitrogen Oxides (NO_x)

Emission Limits: 33.0 lb/hr⁽²⁾⁽⁵⁾; 99.0 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-718-S4

⁽²⁾ Based on 30-day rolling average

⁽³⁾ Based on rolling 365-day basis.

⁽⁵⁾ Based on facility wide PM₁₀, NO_x, CO, and SO₂ dispersion modeling analysis reviewed by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, NO_x, CO, and SO₂ emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS.

Pollutant: Nitrogen Oxides (NO_x)

Emission Limits: 0.1 lb/MMBtu⁽⁴⁾

Authority for Requirement: 40 CFR §60.44b
567 IAC 23.1(2)"ccc"

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⁽⁴⁾Based on 30-day rolling average and applies at all times, including startup, shutdown or malfunction.

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 10.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 33.0 lb./hr⁽²⁾ ⁽⁵⁾; 99.0 tons/yr⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-718-S4

⁽²⁾Based on 30-day rolling average

⁽³⁾Based on rolling 365-day basis.

⁽⁵⁾Based on facility wide PM₁₀, NO_x, CO, and SO₂ dispersion modeling analysis reviewed by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, NO_x, CO, and SO₂ emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS.

Pollutant: Hazardous Air Pollutants, Single (SHAP) (except acetaldehyde)

Emission Limit(s): 0.7 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Pollutant: Acetaldehyde

Emission Limit(s): 0.50 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Pollutant: Hazardous Air Pollutants, Total (THAP) (formaldehyde, acrolein, acetaldehyde, methanol only)

Emission Limit(s): 2.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Pollutant: Hazardous Air Pollutants, Total (THAP) (including combustion HAPs)

Emission Limit(s): 10.971 tons/yr

Authority for Requirement: DNR Construction Permit 05-A-718-S4

NSPS Applicability

The thermal oxidizer/heat recovery boiler system is subject to the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60 Subpart Db) and the General Provisions (40 CFR Part 60 Subpart A).

Authority for Requirement: 40 CFR 60 Subpart A

567 IAC 23.1(2)

40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

DNR Construction Permit 05-A-718-S4

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating limits for this emission unit shall be:

- A. DDGS Dryer A, DDGS Dryer B, DDGS Dryer C, DDGS Dryer D, Thermal Oxidizer (C10) and Thermal Oxidizer (C11) are limited to firing natural gas or process off-gasses.
- B. The Thermal Oxidizer (C10) and Thermal Oxidizer (C11) shall maintain a temperature of no less than - 50 deg F than the average temperature observed during the last performance test that demonstrated compliance at comparable operating conditions, based on a 3-hour block average, when the DDGS dryers or distillation units controlled by the Thermal Oxidizer are in operation.
- C. The Thermal Oxidizer (C10) shall be operated at all times the DDGS Dryer A and DDGS Dryer B are in operation. Thermal Oxidizer (C11) shall be operated at all times the DDGS Dryer C and DDGS Dryer D are in operation. At least one of the Thermal Oxidizers shall be in operation when the Distillation Process is in operation. This requirement shall not apply during periods when the Thermal Oxidizer, or the equipment the Thermal Oxidizer controls, is not in operation.
- D. The owner or operator shall inspect and maintain the control equipment according to the manufacturer's specifications or written operation and maintenance plan.
- E. The facility is required to monitor annual NO_x and CO emission monthly and on a 365-day rolling basis to ensure compliance with the 99.0 ton/yr limits.

Reporting & Recordkeeping:

- A. Per 40 CFR §60.49b(d), The owner or operator shall record and maintain records of the amounts of each fuel combusted in the Thermal Oxidizer/HRSG system during each calendar day and calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
- B. The owner or operator shall properly operate and maintain equipment to continuously monitor the temperature of the Thermal Oxidizer. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per a written facility-specific operation and maintenance plan.
- C. The owner or operator shall keep hourly records of the operating temperature of the Thermal Oxidizer and record all periods (during actual operations) where the 3-hour block average temperature is less than -50 degrees Fahrenheit than the average

temperature observed during any performance test that demonstrated compliance at comparable operating conditions. This requirement shall not apply on the days the Thermal Oxidizer, or the equipment the Thermal Oxidizer controls, is not in operation.

- D. The owner or operator shall maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of the control equipment and monitoring devices.
- E. The owner/operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Db- *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, specifically §60.49b.
- F. The owner/operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart VV- *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*, specifically §60.486 and §60.487.
- G. The owner/operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart A-*General Provisions* §60.1 through §60.19.
- H. The owner or operator shall demonstrate compliance with the NO_x and CO pound per hour and TPY emissions limits, as specified in Emission Limits, in the following manner:
 - a. NO_x and CO emissions shall be calculated using CEMS concentration readings (ppmv), Method 19, and fuel gas flow rate. The equations provided in Step 1 and Step 2 shall be used to calculate NO_x and CO emission rate.

Step 1

$$E = Cd \times Fd [20.9/(20.9 - O2d)]$$

Where E = pollutant emission rate in lb/MMBtu

Cd = pollutant concentration in lb/dscf

For NO_x Cd = (ppmv x 1.194 x 10⁻⁷)

For CO Cd = (ppmv x 7.27 x 10⁻⁸)

Fd = Oxygen based F-factor in dscf/MMBtu (use 8710 for natural gas)

O2d = oxygen content of stack gas on a dry basis

Step 2

$$Er = E \text{ (lb/MMBtu)} \times [\text{heat input per hour for TO} + \text{DDGS Dryers}]$$

(MMBtu/hr)

Where Er is emission rate calculated in lb/hr

heat input per hour in MMBtu/hr is calculated as:

fuel feed rate for TO and DDGS Dryers (cubicfeet/hr x fuel heat content (MMBtu/cubicfeet)

Fuel heat content value for natural gas will be based on 12-month rolling average of the facility's actual values.

- b. The facility shall calculate daily emissions in Pounds Per Day, using the Er value in Step 2.
- c. Using the daily values in pounds per day, the facility shall convert the calculated values to TPY, on a rolling 365-day basis. The TPY values shall be submitted to the

- department at the end of each year with the 4th quarter CEM report.
- d. The department shall evaluate compliance with TPY emissions limits in Section 10 using the pound per day and annual TPY results submitted by the facility for NO_x and CO each year.
 - I. After this permit becomes effective, the facility shall submit the following within 45-days of RATA test completion to the department for four consecutive quarters:
 - a. The RATA test result in lb/hr and the corresponding calculated Er value in lb/hr, as specified in Step 2, for the duration of the RATA test. (*)
 - J. The calculated Er value for NO_x and CO, as specified in Step 2, cannot be underreported greater than 10.0% of the RATA test emission rate in lb/hr. If the calculated Er value for NO_x and CO, as specified in Step 2, underreports more than 10.0%, the facility shall conduct quarterly RATA tests until four consecutive tests show a variation of less than or equal to -10.0%.
 - K. After each RATA facility shall use the following equation to calculate a percentage difference.
 - $(ER - RATA) \times 100 / Er$
 - L. The facility shall adjust the Er value calculated in Step 2 using the methodologies listed below.
 - a. After each RATA, the facility shall adjust the calculated Er values for NO_x and CO, as specified in Step 2, using the absolute value of the percentage difference, as calculated in Condition K. If the calculated value in Condition K is positive, facility shall not make any adjustment.
 - b. If adjustments are needed for more than one of the initial quarterly RATAs, the total adjustment will be calculated as sum of the absolute value, as calculated in Condition K and the previously adjusted value, excluding any values that over-report emissions (i.e. show a positive percentage difference).
 - c. In subsequent years, during the annual RATA, the facility shall compare the calculated Er value, in lb/hr, for NO_x and CO, as specified in Step 2, with the RATA test result. The facility shall calculate a percentage difference using the equation specified in Condition K. If the percentage difference shows that the facility is under-reporting (i.e. negative value), the absolute value of the percentage difference will be added to any previous adjustment factor being used by the facility.
 - d. If/when any adjustment factors are utilized by the facility, the CEM quarterly report submission will include an explanation of the adjustment factor and start date for using this factor. The total adjustment factor utilized after completion of four consecutive quarterly RATAs will be detailed in the annual TPY report submitted to the department with the 4th Quarter CEM report.
 - e. If the facility would like to remove or decrease the adjustment factor, four consecutive quarterly RATAs will be completed per the procedures above and the adjustment factor (if necessary) will be recalculated per the procedures of this permit.
 - M. If the facility has been unable to demonstrate that the facility's calculation, using Method 19, for four consecutive quarters (out of the eight consecutive quarters allotted for achieving compliance), is underreporting less than 10.0% compared to the RATA test results then installation, calibration, maintenance and operation of a flow meter shall be

required within six months to calculate lb/hr emission rate of NO_x and CO. This flow meter shall be capable of meeting EPA Performance Specification 6, (40 CFR Part 60, Appendix B).

- N. The facility shall be required to submit quarterly reports for all pollutants monitored using the CEMS.

Authority for Requirement: DNR Construction Permit 05-A-718-S4

*Condition I – Requirement has been met.

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height (ft, from the ground): 125
 Stack Opening (inches, dia.): 132
 Exhaust Flow Rate (scfm): 164,225
 Exhaust Temperature (°F): 325
 Discharge Style: Vertical Unobstructed
 Authority for Requirement: DNR Construction Permit 05-A-718-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

The following equipment is vented through this stack:

Emission Unit (Emission Unit ID)	Maximum Rated Capacity	Control Equipment
DDGS Dryer A (EU 01)	42.5 MMBtu/hr	Multiclone (C60), Thermal Oxidizer (C10)
DDGS Dryer B (EU 02)	42.5 MMBtu/hr	
Thermal Oxidizer (TO)/Waste Heat Recovery Boiler (EU03)	165 MMBtu/hr	None (Emission unit is located post control)
DDGS Dryer C (EU04)	42.5 MMBtu/hr	Multiclone (C61), Thermal Oxidizer (C11)
DDGS Dryer D (EU05)	42.5 MMBtu/hr	
Thermal Oxidizer (TO)/Waste Heat Recovery Boiler (EU06)	165 MMBtu/hr	None (Emission unit is located post control)
DDGS Cooling Drum (EU58)	50 tons of DDGS/hr	Baghouse (C70) and TO (C10) or TO (C11)
Distillation Process (EU 90)		
Mixer	2,000 gallons/minute	Thermal Oxidizer (C10) or Thermal Oxidizer (C11)
Slurry Tank #1	25,467 gallons	
Slurry Tank #2	29,325 gallons	
Flash Tank	4,830 gallons	
Cook Tubes	2,000 gallons/minute	
Liquefaction Tank #1	128, 500 gallons	
Liquefaction Tank #2	128, 500 gallons	
Yeast Tank #1	21, 175 gallons	
Yeast Tank #2	21, 175 gallons	
Beer Column	3,000 gallons/min from Beer Feed	
Side Stripper	3,000 gallons/min from Beer Feed	
Rectifier Column	3,000 gallons/min from Beer Feed	
190 Proof Condenser	3,000 gallons/min from Beer Feed	
Molecular Sieve	550 gallons/min from 190° Feed	
200 Proof Condenser	550 gallons/min from Distillate	
Centrate Tanks	1,500 gallons/min from each Centrifuge 1 - 6	Thermal Oxidizer (C10) or Thermal Oxidizer (C11)
Evaporators	3,000 gallons/min from Thin Stillage	
Blender Feed Screw	6,000 bushels/hr	
DDGS Feed Conveyors	120 tons/hr	

Monitoring Requirements

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

Compliance Demonstration

Pollutant	Compliance Methodology	Frequency	Test Method
PM – State	Performance Testing	Every 36-months	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM ₁₀	Performance Testing	Every 36-months	40 CFR 51, Appendix M, 201A with 202
Opacity	Performance Testing	Every 36-months	40 CFR 60, Appendix A, Method 9
VOC	Performance Testing	Semi-Annual ⁽¹⁾	40 CFR 60, Appendix A, Method 320 or Method 18
Acetaldehyde	Performance Testing	Semi-Annual ⁽¹⁾	According to DNR Approved Method
Single HAP ⁽²⁾⁽³⁾	Performance Testing	Semi-Annual ⁽¹⁾	According to DNR Approved Method
Total HAP	Performance Testing	Semi-Annual ⁽¹⁾	According to DNR Approved Method

⁽¹⁾ The tests shall be conducted semi-annually with a minimum of 90 days between tests. If the results of three consecutive tests are below 90% of the applicable emission limitations, the facility may reduce the testing to once per year. The annual test shall be conducted with a minimum of 180 days between tests. The semi-annual testing requirement as mentioned above will be triggered after each of the following:

- After the facility increases production above 136 MMGal of ethanol per year.
- After the facility achieves a production rate of 146 MMGal of ethanol per year.
- After the facility achieves a production rate of 156 MMGal of ethanol per year.
- After the facility achieves a production rate of 165 MMGal of ethanol per year.

⁽²⁾ Acrolein, Formaldehyde and Methanol shall be tested under the SHAP limit listed under Emission Limits. Acetaldehyde has a separate emission limit listed under Emission Limits.

⁽³⁾ Acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. All HAP compounds that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit.

The owner of this equipment or the owner’s authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Continuous Emissions Monitoring:

The owner or operator shall demonstrate compliance with the nitrogen oxide emission limits (both NSPS and non-NSPS) through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

The 1-hour average NO_x emission rates measured by the NO_x CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

Per 40 CFR 60.49b(f), when NO_x emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

The owner or operator shall demonstrate compliance with the carbon monoxide emission limits through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring carbon monoxide emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 (PS4). The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

In accordance with 40 CFR Part 60 Subpart Db, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring either the oxygen content or the carbon dioxide content of the flue gas discharged from the emission point to the atmosphere.

All continuous monitoring systems (CMS) required by this permit shall be operated and data recorded during all periods of operation of the Dryers/TO/HRSG except for CMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments

If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

The 1-hour average emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.

For each hour of missing emission data, the owner or operator shall substitute data by:

1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - a. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - b. For missing data period greater than 24 hours, substitute the greater of:
 - i. The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
2. If the monitor data availability is greater than or equal to 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - a. For the missing data period less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
 - b. For missing data period greater than 8 hours, substitute the greater of:
 - i. The 95th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
 - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method that is approved by the Department.

The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)

Authority for Requirement: DNR Construction Permit 05-A-718-S4

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No
For Multiclones (C60 and C61) and baghouse (C70)

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

For the Thermal Oxidizers (C10 and C11)
Operating Requirements with Associated Monitoring and Recordkeeping is CAM equivalent.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S20

Associated Emission Unit ID Numbers: See Table: Grain Receiving and Storage

Emissions Control Equipment ID Number: See Table: Grain Receiving and Storage

Emissions Control Equipment Description: See Table: Grain Receiving and Storage

Table: Grain Receiving and Storage

Emission Unit Number	Emission Unit Description	Rated Capacity	Raw Material/Fuel	Control Equipment Description
07	Truck Receiving Dump Pit & Transfer Drag #1	20,000 bushels/hr	Corn	Baghouse (CE20)
08	Receiving Leg #1	20,000 bushels/hr		
09	Silo Fill Conveyor #1	20,000 bushels/hr		
10	Grain Silo #1	524,000 bushels		
11	Silo Reclaim Conveyor #1	20,000 bushels/hr		
13	Truck Receiving Dump Pit & Transfer Drag #2	20,000 bushels/hr		
14	Receiving Leg #2	20,000 bushels/hr		
15	Silo Center Fill Conveyor #2	20,000 bushels/hr		
16	Grain Silo #2	524,000 bushels		
17	Silo Reclaim Conveyor #2	6,000 bushels/hr		
61	Grain Silo #3	89,000 bushels		
62	Grain Silo #4	524,000 bushels		
63	Grain Silo #5	524,000 bushels		
64	Rail Receiving Dump Pit & Drag Conveyor	40,000 bushels/hr		
65	Silo Reclaim Conveyor #3	6,000 bushels/hr		
66	Silo Reclaim Conveyor #4	6,000 bushels/hr		
67	Silo Reclaim Conveyor #5	6,000 bushels/hr		
68	Hammermill Feed Silo	37,000 bushels		

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%⁽¹⁾

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

DNR Construction Permit 05-A-719-S3

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 3.19 lb/hr, 0.1 gr./dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-719-S3

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 3.19 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-719-S3

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Process throughput:

1. Valero Renewable Fuels (Plant No. 34-01-040) is limited to receiving and processing 59.60 million bushels of corn per rolling 12-month period.

Control equipment parameters:

1. Maintain Baghouse (CE20) according to manufacturer specifications and maintenance schedule.

Work practice standards:

1. The facility shall conduct visible emissions observation (opacity) on EP S20 once per calendar day.

Reporting & Recordkeeping

1. Calculate and record, on a monthly basis, the total amount of corn received at Valero Renewable Fuels (Plant No. 34-01-040) in bushels. Calculate and record rolling 12-month totals.

2. The owner or operator shall collect and record the visible emissions observations. If visible emissions are observed, the owner or operator shall investigate Baghouse (CE20) and make corrections to Baghouse (CE20). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE20) is not in operation.
3. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE20).

Authority for Requirement: DNR Construction Permit 05-A-719-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 43.75

Exhaust Flow Rate (scfm): 35,000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-719-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Operating Requirements with Associated Monitoring and Recordkeeping is CAM equivalent.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S30

Associated Emission Unit ID Numbers: See Table: Hammermilling

Emissions Control Equipment ID Number: See Table: Hammermilling

Emissions Control Equipment Description: See Table: Hammermilling

Table: Hammermilling

Emission Unit Number	Emission Unit Description	Rated Capacity	Raw Material/Fuel	Control Equipment Description
20	Hammermill #1	1,500 bu/hr	Corn	Baghouse (CE30)
21	Hammermill #2	1,500 bu/hr		
22	Hammermill #3	1,500 bu/hr		
23	Hammermill #4	1,500 bu/hr		
79	Rotary Scalper	3,000 bu/hr		
85	Rotary Scalper	3,000 bu/hr		
80	Scalping Bin 3B	27,641 bu		
82	Milled Corn Conveyor (CD-1372)	9,600 bu/hr		
83	Blender Feed Screw	9,600 bu/hr		
84	Slurry Blender	9,600 bu/hr		

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 05-A-720-S3

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.87 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-720-S3

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 1.87 lb/hr

Authority for Requirement: Iowa DNR Construction Permit 05-A-720-S3

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The facility shall conduct visible emissions observation (opacity) on EP S30 once per calendar day. The owner or operator shall collect and record the visible emissions observations. If visible emissions are observed, the owner or operator shall investigate Baghouse (CE-30) and make corrections to Baghouse (CE-30). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days Baghouse (CE-30) is not in operation.

- B. The owner or operator shall operate, inspect and maintain all the equipment associated with the process and the Baghouse (CE-30) in accordance with manufacturer's specifications and maintenance schedule. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Baghouse (CE-30).

Authority for Requirement: DNR Construction Permit 05-A-720-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 37.75

Exhaust Flow Rate (scfm): 21,000

Exhaust Temperature (°F): 90

Discharge Style: Vertical unobstructed

Authority for Requirement: DNR Construction Permit 05-A-720-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Operating Requirements with Associated Monitoring and Recordkeeping is CAM equivalent.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S40

Associated Emission Unit ID Numbers: See Table: Fermentation Process

Emissions Control Equipment ID Number: See Table: Fermentation Process

Emissions Control Equipment Description: See Table: Fermentation Process

Table: Fermentation Process

Emission Unit Number	Emission Unit Description	Rated Capacity (gallons)	Raw Material/Fuel	Control Equipment Description
35	Batch Mash Fermenter #1	807,000	Corn Mash/Ethanol	Packed Bed Scrubber (CE40)
36	Batch Mash Fermenter #2	807,000		
37	Batch Mash Fermenter #3	807,000		
38	Batch Mash Fermenter #4	807,000		
39	Batch Mash Fermenter #5	807,000		
40	Batch Mash Fermenter #6	807,000		
41	Batch Mash Fermenter #7	807,000		
43	Batch Mash Fermenter #8	807,000		
42	Beer Well	1,080,000; 1860 gallons/minute outlet		

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%⁽¹⁾

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

DNR Construction Permit 05-A-721-S5

⁽¹⁾ An exceedance of the indicator opacity of "no visible emissions" 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).

Emission Limits for Normal Operation:

Pollutant: Particulate Matter (PM)

Emission Limit(s): 1.55 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-721-S5

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 1.55 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 15.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Hazardous Air Pollutants, Single (SHAP) (except Acetaldehyde)

Emission Limit(s): 1.00 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Acetaldehyde

Emission Limit(s): 1.32 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Hazardous Air Pollutants, Total (THAP)

Emission Limit(s): 2.00 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Emission Limits during Scrubber by-pass:

Pollutant: Particulate Matter (PM)

Emission Limit(s): 7.75 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-721-S5

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 7.75 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1500 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Hazardous Air Pollutants, Single (SHAP) (except Acetaldehyde)

Emission Limit(s): 10.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Acetaldehyde
Emission Limit(s): 13.2 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-721-S5

Pollutant: Hazardous Air Pollutants, Total (THAP)
Emission Limit(s): 20.0 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-721-S5

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The fermentation process may operate under either the **Scrubber Recycle Operating Scenario** or **Scrubber Non-Recycle Operating Scenario**. **Scrubber Non-Recycle Operating Scenario** is defined as operation of the scrubber when the recycle loop is operating at less than 90% of the tested value. The scrubber liquid flow rate, additive rate and recycle rate (if applicable) must be set by the rates determined during the most recent stack test demonstrating compliance for each respective operating scenario.
- B. Record the scrubber recycle line liquid (water) flow rate on a continuous basis. Calculate and record the average liquid flow rate based on 3-hour average. If the flow rate is below 90% of average liquid flow rate observed during the most recent stack test that demonstrated compliance, the scrubber must be operated under the **Scrubber Non-Recycle Operating Scenario**.
- C. Fermentation Scrubber (CE40) shall have a minimum scrubber liquid (water) flow rate which is calculated as 90 percent of the average liquid flow rate observed during the most recent performance test for each operating scenario (**Scrubber Recycle Operating Scenario** or **Scrubber Non-Recycle Operating Scenario**) that demonstrated compliance with all applicable emission limits, based on a 3-hour averaging period.
- D. Record the scrubber liquid (water) flow rate on a continuous basis. Calculate and record the average liquid flow rate based on 3-hour average. If the flow rate deviates below 90% of average liquid flow rate observed during the most recent stack test that demonstrated compliance, record the time, date and actions taken to correct the situation and also when the parameter is back above the average flow rate.
- E. The additive feed rate (in milliliters per minute) shall be maintained at or above the average rate observed during the most recent performance test for each operating scenario (**Scrubber Recycle Operating Scenario** or **Scrubber Non-Recycle Operating Scenario**) that demonstrated compliance with all applicable emission limits, based on a 3-hour averaging period.
- F. Record the additive feed rate on a continuous basis. Calculate and record the additive feed rate based on 3-hour average. If the flow rate deviates below the average additive feed rate observed during the most recent stack test that demonstrated compliance, record the time, date and actions taken to correct the situation and also when the parameter is back above the average flow rate.
- G. Maintain Fermentation Scrubber (CE40) according to manufacturer specifications and maintenance schedule.

- H. Maintain a record of all inspections/maintenance and any action resulting from the inspection/maintenance of Fermentation Scrubber (CE40).
- I. Maintain onsite a copy of the most recent performance test detailing scrubber pressure drop, scrubber liquid flow rate, and additive feed rate measured during most recent performance test that demonstrated compliance with Emission Limits.
- J. The scrubber associated with this equipment may be by-passed to allow for cleaning of that scrubber. This by-pass operation shall not exceed 2 hours per calendar quarter.
- K. For each period of scrubber by-pass allowed under condition J above, the date and time the cleaning was initiated and the duration of the cleaning operation shall all be recorded.
- L. If multiple by-passes for cleaning occur during a single calendar quarter, at the end of that calendar quarter, calculate the total duration of scrubber by-pass during that calendar quarter.

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 70

Stack Opening, (inches, dia.): 29.0

Exhaust Flow Rate (scfm): 15,000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-721-S5

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Compliance Demonstration Table

Pollutant	Compliance Methodology	Frequency	Test Run Time	Test Method
VOC	Stack Testing	Semi-annual ^(1,3)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Single HAP ⁽²⁾	Stack Testing	Semi-annual ^(1,3)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Total HAP ⁽⁴⁾	Stack Testing	Semi-annual ^(1,3)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18
Acetaldehyde	Stack Testing	Semi-annual ^(1,3)	1 hour	40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18

⁽¹⁾ The tests shall be conducted semi-annually with at least 90 days between tests. At least one test shall be conducted during June, July or August each year. The initial test on this schedule shall be completed within sixty (60) days of after achieving the maximum production rate and no later than one hundred eighty (180) days after the completion of the installation of the scrubber water recycle system.

⁽²⁾ Acrolein, Formaldehyde and Methanol shall be tested for compliance with the SHAP limit. Acetaldehyde has a separate emission limit.

⁽³⁾ Tests shall be performed separately for each operating scenario, **Scrubber Recycle Operating Scenario** and **Scrubber Non-Recycle Operating Scenario**. See Operating Requirements with Associated Monitoring and Recordkeeping C.

⁽⁴⁾ All HAP compounds tested that test below detection limits shall be assumed to be emitting at a rate equal to the detection limit

Authority for Requirement: DNR Construction Permit 05-A-721-S5

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Operating Requirements with Associated Monitoring and Recordkeeping is CAM equivalent.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S70

Associated Equipment

Associated Emission Unit ID Number: 58
Emissions Control Equipment ID Number: CE70
Emissions Control Equipment Description: Baghouse

Emission Unit vented through this Emission Point: 58
Emission Unit Description: Cooling Drum Thermal Oxidizer Bypass Stack
Raw Material/Fuel: DDGS
Rated Capacity: 50 tons/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 05-A-724-S3

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 4.00 lb/hr, 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.4(7)

DNR Construction Permit 05-A-724-S3

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 3.10 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-724-S3

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 12.0 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-724-S3

Pollutant: Hazardous Air Pollutants, Single (SHAP)⁽²⁾

Emission Limit(s): 0.20 lb/hr

Authority for Requirement: DNR Construction Permit 05-A-724-S3

⁽²⁾ Highest SHAP is Acetaldehyde.

Pollutant: Hazardous Air Pollutants, Total (THAP)
Emission Limit(s): 0.75 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-724-S3

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating Limits:

1. The stack does not operate under normal operating scenario. It is a bypass stack for the DDGS Cooler. Hence, the stack is limited to operating 200 hours on a rolling 12-month basis, to the atmosphere. If the operation of the stack is over the threshold, the facility should submit a permit modification request to the department to have the permit re-evaluated.
2. The facility shall have a site-specific plan for S70 documenting the following:
 - a. Time duration of operation of S70.
 - b. The actions that the facility took to bring the operation back to normal operation mode.
 - c. Calculate emissions from each event.
3. Maintain Baghouse (CE70) according to manufacturer specifications and maintenance schedule.

Reporting & Recordkeeping

1. The owner or operator shall keep records of the number of hours the stack is operated on a rolling 12-month basis.
2. The owner or operator shall keep records of time duration, actions taken to rectify the problem, and emissions calculations from each event.
3. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Baghouse (CE70).

Authority for Requirement: DNR Construction Permit 05-A-724-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 17,272
Exhaust Temperature (°F): 100
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 05-A-724-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the

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

Monitoring Requirements

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S75

Associated Emission Unit ID Numbers: See Table: DDGS Storage, Handling, Loadout
 Emissions Control Equipment ID Number: See Table: DDGS Storage, Handling, Loadout
 Emissions Control Equipment Description: See Table: DDGS Storage, Handling, Loadout

Table: DDGS Storage, Handling, Loadout

Emission Unit Number	Emission Unit Description	Rated Capacity	Raw Material/Fuel	Control Equipment Description
49	DDGS Inclined Drag	65 tons/hr	DDGS	Baghouse (CE75)
50	DDGS Topfill Drag (Flat Storage)	50 tons/hr		
52	DDGS Flat Storage Floor Drag	200 tons/hr		
53	DDGS Recirc/Loadout Leg	400 tons/hr		
54	DDGS Topfill Drag (Silo Recirc)	400 tons/hr		
55	DDGS Loadout Drag	400 tons/hr		
56	Truck Load Spout	400 tons/hr		
69	DDGS Transfer Drag	65 tons/hr		
70	DDGS Storage Leg	90 tons/hr		
71	DDGS Topfill Drag	65 tons/hr		
72	DDGS Storage Silo #1	4,000 tons		
73	DDGS Storage Silo #2	4,000 tons		
74	DDGS Reclaim Drag #1	200 tons/hr		
75	DDGS Reclaim Drag #2	400 tons/hr		
76	Rail Loadout Spout #1	400 tons/hr		
77	Rail Loadout Spout #2	400 tons/hr		
78	Rail Loadout Spout #3	400 tons/hr		

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): 40%⁽¹⁾

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

DNR Construction Permit 05-A-722-S4

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

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.86 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.4(7)
DNR Construction Permit 05-A-722-S4

Pollutant: Particulate Matter (PM₁₀)
Emission Limit(s): 0.86 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-722-S4

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 1.0 lb./hr
Authority for Requirement: DNR Construction Permit 05-A-722-S4

Pollutant: Hazardous Air Pollutants, Single (SHAP)
Emission Limit(s): 0.10 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-722-S4

Pollutant: Acetaldehyde
Emission Limit(s): 0.08 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-722-S4

Pollutant: Hazardous Air Pollutants, Total (THAP)
Emission Limit(s): 0.40 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-722-S4

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The facility is limited to loading/shipping a maximum of 536,400 tons of DDGS per rolling 12-month period.
 - a. The facility shall record the total amount of DDGS loaded/shipped, in tons, on a monthly basis.
 - b. The facility shall calculate the 12-month rolling total of DDGS loaded/shipped, in tons, on a monthly basis.
- B. The facility shall conduct visible emissions observation (opacity) on EP S75 once per calendar day.
 - a. The owner or operator shall collect and record the visible emissions observations.
 - b. If visible emissions are observed, the owner or operator shall investigate Baghouse (CE 75) and make corrections to Baghouse (CE 75). The owner or operator shall maintain a record of all corrective actions taken.
 - c. This requirement shall not apply on the days the Baghouse (CE 75) is not in operation.
- C. The owner or operator shall operate, inspect and maintain all the equipment associated with the process and the Baghouse (CE 75) in accordance with manufacturer's

specifications and maintenance schedule.

- a. The owner or operator shall maintain a record of all inspections, maintenance activities, and any actions resulting from the inspection or maintenance of the Baghouse (CE 75).

Authority for Requirement: DNR Construction Permit 05-A-722-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 23.75

Exhaust Flow Rate (scfm): 8,925

Exhaust Temperature (°F): 77

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-722-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

See visible emissions observation requirements under Operating Requirements with Associated Monitoring and Recordkeeping above.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S80

Associated Equipment

Associated Emission Unit ID Number: 59
Emissions Control Equipment ID Number: CE80
Emissions Control Equipment Description: Vapor Combustor (12.4 MMBtu/hr)

Emission Unit vented through this Emission Point: 59
Emission Unit Description: Ethanol Loadout Vapor Combustor
Raw Material/Fuel: Ethanol
Rated Capacity: 2,800 gallons/minute

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%⁽¹⁾
Authority for Requirement: 567 IAC 23.3(2)"d"
DNR Construction Permit 05-A-725-S1

⁽¹⁾An exceedance of the indicator opacity of "no visible emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.09 lb/hr, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 05-A-725-S1

Pollutant: Particulate Matter (PM₁₀)
Emission Limit(s): 0.09 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Sulfur Dioxide (SO₂)
Emission Limits: 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Nitrogen Oxides (NO_x)
Emission Limits: 1.21 lb/hr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 39.0 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 4.59 lb./hr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Hazardous Air Pollutants, Single (SHAP)
Emission Limit(s): 0.63 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Acetaldehyde
Emission Limit(s): 0.13 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Pollutant: Hazardous Air Pollutants, Total (THAP)
Emission Limit(s): 0.912 tons/yr
Authority for Requirement: DNR Construction Permit 05-A-725-S1

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Process throughput:

1. Owner or operator is limited to a maximum production/loadout (loadout by truck or rail) of 165 million gallons of ethanol or denatured ethanol per twelve month rolling period at Valero Renewable Fuels (Plant No. 34-01-040).
2. Owner or operator is limited to blending a maximum of 8.25 million gallons of denaturant (gasoline) with ethanol per twelve month rolling period at Valero Renewable Fuels (Plant No. 34-01-040).
3. Owner or operator is limited to loading non-dedicated trucks with ethanol for a maximum of 100.0 million gallons per rolling 12-month period at Valero Renewable Fuels (Plant No. 34-01-040).

Control equipment parameters:

1. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame in the vapor combustor.
2. The vapor combustor shall be operated with a flame when emissions are vented to it.
3. The vapor combustor shall be a smokeless design.

Reporting & Recordkeeping:

1. On a monthly basis, the owner or operator shall keep records of the amount of ethanol or denatured ethanol produced/loaded out at Valero Renewable Fuels (Plant No. 34-01-040) in gallons. Calculate and record rolling 12-month totals.

2. On a monthly basis, the owner or operator shall keep records of the amount of denaturant (gasoline) used in ethanol blending at Valero Renewable Fuels (Plant No. 34-01-040) in gallons. Calculate and record rolling 12-month totals.
3. On a monthly basis, the owner or operator shall keep records of the amount of ethanol loaded into non-dedicated trucks at Valero Renewable Fuels (Plant No. 34-01-040) in gallons. Calculate and record rolling 12-month totals.
4. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Vapor Combustor (CE80).

Authority for Requirement: DNR Construction Permit 05-A-725-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

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

Stack Opening, (inches, dia.): 72

Exhaust Flow Rate (scfm): 7,973

Exhaust Temperature (°F): 1,800

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 05-A-725-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Operating Requirements with Associated Monitoring and Recordkeeping is CAM equivalent.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: S90

Associated Equipment

Associated Emission Unit ID Number: 60

Emission Unit vented through this Emission Point: 60

Emission Unit Description: Fire Pump

Raw Material/Fuel: Diesel Fuel

Rated Capacity: 2.1 MMBtu/hr, 300bhp

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%⁽¹⁾

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

DNR Construction Permit 05-A-726-S2

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

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.98 lb/hr⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-726-S2

⁽³⁾ Based on facility wide PM₁₀, SO₂, CO and NO_x dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, SO₂, CO and NO_x emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS. Requested limit also restricts potential emissions from Valero Renewable Fuels below "major" source threshold for purposes of Prevention of Significant Deterioration. Emission limits based on annual operating restriction.

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 0.98 lb/hr⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-726-S2

⁽³⁾ Based on facility wide PM₁₀, SO₂, CO and NO_x dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, SO₂, CO and NO_x emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS. Requested limit also restricts potential emissions from Valero Renewable Fuels below "major" source threshold for purposes of Prevention of Significant Deterioration. Emission limits based on annual operating restriction.

Pollutant: Sulfur Dioxide (SO₂)

Emission Limits: 1.10 lb/hr ⁽³⁾, 2.5 lb/MMBtu⁽²⁾

Authority for Requirement: 567 IAC 23.3(3)"b"(2)

DNR Construction Permit 05-A-726-S2

⁽²⁾ 2.5 pounds of sulfur dioxide, replicated maximum three-hour average, per million Btu of heat input.

⁽³⁾ Based on facility wide PM₁₀, SO₂, CO and NO_x dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, SO₂, CO and NO_x emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS. Requested limit also restricts potential emissions from Valero Renewable Fuels below "major" source threshold for purposes of Prevention of Significant Deterioration. Emission limits based on annual operating restriction.

Pollutant: Nitrogen Oxides (NO_x)

Emission Limits: 14.0 lb/hr ⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-726-S2

⁽³⁾ Based on facility wide PM₁₀, SO₂, CO and NO_x dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, SO₂, CO and NO_x emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS. Requested limit also restricts potential emissions from Valero Renewable Fuels below "major" source threshold for purposes of Prevention of Significant Deterioration. Emission limits based on annual operating restriction.

Pollutant: Carbon Monoxide (CO)

Emission Limit(s): 3.0 lb/hr ⁽³⁾

Authority for Requirement: DNR Construction Permit 05-A-726-S2

⁽³⁾ Based on facility wide PM₁₀, SO₂, CO and NO_x dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀, SO₂, CO and NO_x emissions from Valero Renewable Fuels located in Charles City, Iowa will not cause a predicted exceedance of the NAAQS. Requested limit also restricts potential emissions from Valero Renewable Fuels below "major" source threshold for purposes of Prevention of Significant Deterioration. Emission limits based on annual operating restriction.

NESHAP Applicability

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(iii) this compression ignition emergency engine, located at an area source, is an existing stationary RICE as it was constructed prior to June 12, 2006. This facility is also subject to the requirements and conditions of 40 CFR 63 Subpart A - *General Provisions*.

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

40 CFR 63 Subpart A

567 IAC 23.1(4)

DNR Construction Permit 05-A-726-S2

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of Subpart ZZZZ that are applicable by May 3, 2013.

Operation and Maintenance Requirements 40 CFR 63.6603, 63.6625, 63.6640 and Tables 2d and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, emergency demand response and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing, emergency demand response and periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing and emergency demand response. Except as provided in 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2d to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5)
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2d. (See Footnote 2 of Table 2d for more information.)

Authority for Requirement: 40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4)"cz"

Hours of operation:

1. The hours of operation shall not exceed 250 hours per twelve-month rolling period.

Process throughput:

1. The fuel shall be limited to #1 or #2 diesel only with a sulfur content not to exceed 0.5% by weight.

Reporting & Recordkeeping

1. Maintain records on type of fuel used.
2. Record the hours of operation per twelve-month rolling period.

Authority for Requirement: DNR Construction Permit 05-A-726-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 14
Stack Opening, (inches, dia.): 5
Exhaust Flow Rate (scfm): 607
Exhaust Temperature (°F): 855
Discharge Style: Vertical Unobstructed
Authority for Requirement: DNR Construction Permit 05-A-726-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

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

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: FS10

Associated Equipment

Associated Emission Unit ID Number: FS10

Emissions Control Measure Description: Paved Road Sweeping

Emission Unit vented through this Emission Point: FS10

Emission Unit Description: Truck Traffic

Raw Material/Fuel: Dust from Truck Traffic

Rated Capacity: 7.62 VMT/hr

Applicable Requirements

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

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

Pollutant: Opacity

Emission Limit(s): ⁽¹⁾

Authority for Requirement: 567 IAC 23.3(2)"c"(1)

DNR Construction Permit 05-A-733-S2

⁽¹⁾The owner/operator shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond lot line of the property.

Pollutant: Particulate Matter (PM₁₀)

Emission Limit(s): 5.0 tons/yr ⁽²⁾

Authority for Requirement: DNR Construction Permit 05-A-733-S2

⁽²⁾Emission limit based on an average vehicle weight of 27.5 tons, silt content of 2.5 grams per square meter, all grain and denaturant is received by truck, 60 percent of the ethanol produced is shipped by truck, and distillers grain shipped by truck.

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Control equipment parameters:

1. Fugitive dust emissions generated from truck traffic on the paved haul roads shall be controlled by:
 - Sweeping two times per week when the haul roads are used 5 days in a week, with a minimum of one day between sweeping events except as noted in Conditions (i) through (ii) below. The sweeper type must be at minimum an enclosed sweeper type.
 - Sweeping 3 times a week when the haul roads are used 7 days in a week, with a minimum of one day between sweeping events except as noted in Conditions (i)

- through (ii) below. The sweeper type must be at minimum an enclosed sweeper type.
- (i) If sweeping cannot be accomplished because the ambient air temperature (as measured at the facility during daylight operating hours) will be less than 35⁰ F (1.7⁰ C) or conditions due to weather could create hazardous driving conditions, then the sweeping shall be postponed and accomplished as soon after the scheduled date as the conditions preventing the sweeping have abated.
 - (ii) Paved road sweeping and unpaved road dust suppressant application need not occur when a rain gauge located at the site indicates that at least 0.2 inches of precipitation (water equivalent) has occurred within the preceding 24-hour time period. However, paved road sweeping and unpaved road dust suppressant application shall resume within 24-hours after the precipitation event has ended.
2. In the event that PM₁₀ emissions exceed 3.75 tons per rolling 12-month period, Valero Renewable is required to commence daily road sweeping of the haul roads. If PM₁₀ emissions are maintained below 3.75 tons per rolling 12-month period, Valero Renewable Fuels may revert back to sweeping requirements as specified in Condition 1 above.
 3. If sweeping cannot be accomplished for the entire month due to ambient temperatures or hazardous weather, silt load testing is not required for that month. The facility could use previous month's test data for calculating emissions.
 4. The speed limit shall be posted on the haul roads.
 5. Any spills on the road shall be cleaned up immediately.

Reporting & Recordkeeping

- A. Performance testing on the haul road surface silt loading shall be completed on a monthly basis. For each performance test, silt loading sampling shall be done at least 3 different locations. Performance testing shall be completed prior to pave road sweeping. After two years of silt load testing, the facility could request the department to reevaluate the silt load testing frequency requirements.
- B. The owner or operator shall maintain a log of each silt load sampling event that contains the following:
 - a. The date of silt load sampling event;
 - b. The measured silt content in grams;
 - c. Sample area used for silt load sampling in meters,
 - d. The operator's initials.
- C. Record on a monthly basis, the total number of trucks to transport or receive materials at Valero Renewable Fuels (grain, ethanol, denaturant, DDGS, etc.)
- D. Record the frequency of cleaning performed on the haul roads. If the roads are not cleaned due to weather, a written record must be kept on site outlining the conditions.
- E. The owner or operator shall calculate and record the monthly haul road emissions according to the following formulas, which use the equations from AP-42 Section 13.2.1

and empirical constants. The monthly haul road emissions shall be determined from the total of emissions calculated using the equation below:

$$E_{PM10} = k(sL)^{0.91} (W)^{1.02} \left(1 - \frac{P}{4N}\right)$$

Where E_{PM10} = tons of PM_{10} emissions per month

sL = road surface silt loading (g/m^2) for the average of three silt load samples conducted for the month

W = mean vehicle weight in tons

K = empirical constant

P = number of “wet” days with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and

N = number of hours in the averaging period (e.g. 8760 for annual, 2124 for season, 720 for monthly).

The owner or operator shall update monthly the twelve-month rolling total of PM_{10} emissions by adding up the calculated monthly emissions for the previous twelve months.

Authority for Requirement: DNR Construction Permit 05-A-733-S2

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: FS40

Associated Equipment

Associated Emission Unit ID Numbers: FS40

Emission Unit vented through this Emission Point: FS40

Emission Unit Description: Equipment Leaks

Raw Material/Fuel: Ethanol

Rated Capacity: N/A

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 35.0 tons/yr

Authority for Requirement: DNR Construction Permit 05-A-735-S2

Pollutant: Hazardous Air Pollutants, Single (SHAP)

Emission Limit(s): 0.70 tons/yr

Authority for Requirement: DNR Construction Permit 05-A-735-S2

Pollutant: Acetaldehyde

Emission Limit(s): 0.70 tons/yr

Authority for Requirement: DNR Construction Permit 05-A-735-S2

Pollutant: Hazardous Air Pollutants, Total (THAP)

Emission Limit(s): 1.38 tons/yr

Authority for Requirement: DNR Construction Permit 05-A-735-S2

NSPS Applicability:

This facility is subject to the requirements and conditions of New Source Performance Standards (NSPS) Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry as specified in 40 CFR Part 60 §60.480. This facility is also subject to the requirements and conditions of NSPS Subpart A-*General Provisions*.

Authority for Requirement: 40 CFR 60 Subpart VV

567 IAC 23.1(2)"nn"

40 CFR 60 Subpart A

567 IAC 23.1(2)

DNR Construction Permit 05-A-735-S2

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Work practice standards:

1. The component count shall be documented as to the number and types of components used. Components include but are not limited to valves, pumps, compressor seals, flanges, etc. The component count shall be updated as the component count varies.

Authority for Requirement: 567 IAC 22.108(3)

2. The owner/operator shall follow the applicable standards of NSPS Subpart VV, 40 CFR 60.480 through 40 CFR 60.489.

Authority for Requirement: DNR Construction Permit 05-A-735-S2

Reporting & Recordkeeping

1. The owner or operator shall keep records as required in 40 CFR 60.486 and reports as required in 40 CFR 60.487.
2. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart VV- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, specifically §60.486 and §60.487.
3. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart A General Provisions §§60.1 through 60.19.

Authority for Requirement: DNR Construction Permit 05-A-735-S2

4. Calculate and record the VOC and HAP emissions based on the documented component count. Update annualized VOC and HAP emission calculations as the component count varies. LDAR monitoring data and/or emission factors from EPA document 453/R-95-017 entitled Protocol for Equipment Leak Emissions Estimates shall be used to calculate actual emissions.

Authority for Requirement: 567 IAC 22.108(3)

Monitoring Requirements

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

Compliance Demonstration

Pollutant	Initial	Subsequent	Methodology	Frequency
VOC	Yes	Yes	Reporting and Recordkeeping* & NSPS VV	As specified in NSPS VV Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)
Single HAP	Yes	Yes	Reporting and Recordkeeping* & NSPS VV	As specified in NSPS VV Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)
Total HAP	Yes	Yes	Reporting and Recordkeeping* & NSPS VV	As specified in NSPS VV Leak Detection Program. Frequency varies with component type (weekly, monthly, etc.)

*Reporting and Recordkeeping as described under Operating Requirements with Associated Monitoring and Recordkeeping.

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: FS80

Associated Equipment

Associated Emission Unit ID Number: FS80
Emissions Control Equipment ID Number: CE FS80
Emissions Control Equipment Description: Mist Eliminator

Emission Unit vented through this Emission Point: FS80
Emission Unit Description: Cooling Tower, 4 Cells
Raw Material/Fuel: Water
Rated Capacity: 4,544,480 gal/hr

Applicable Requirements

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

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

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 39.87 tons/year ⁽¹⁾, 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"
DNR Construction Permit 05-A-734-S1

⁽¹⁾The limit is based on drift loss and total dissolved solids (TDS) limit of 4,800 part per million by weight (4,800 mg/L).

Pollutant: Particulate Matter (PM₁₀)
Emission Limit(s): 9.10 lb/hr ⁽²⁾
Authority for Requirement: DNR Construction Permit 05-A-734-S1

⁽²⁾Based on facility wide PM₁₀ dispersion modeling analysis conducted by the Department on 11/29/2012. The modeling results indicate that the PM₁₀ emissions from Valero Renewable Fuels will not cause a predicted exceedance of the NAAQS.

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating Limits:

A. The Total Dissolved Solids (TDS) concentration in the cooling water shall not exceed 4,800

parts per million by weight (4,800 mg/L) for any single sampling event.

- B. Biocide or additive used in cooling water shall not contain any VOCs or HAPs.
- C. Maintain Cooling Tower (FS80) according to manufacturer specifications and maintenance schedule.

Operating Condition Monitoring:

- A. The owner or operator shall complete an analysis of the Total Dissolved Solids (TDS) concentration in the cooling water associated with Cooling Tower (FS80) on a quarterly basis expressed as parts per million by weight (mg/L). Sampling shall occur four times per calendar year with a minimum of one month between sampling events.
- B. Maintain onsite a copy of Material Safety Data Sheet (MSDS) of any biocide or additive used in cooling water detailing VOC and HAP content (if any).
- C. Maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of Cooling Tower (FS80).

Authority for Requirement: DNR Construction Permit 05-A-734-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.): 336
 Exhaust Flow Rate (scfm): 4,046,024 (all four cells)
 Exhaust Temperature (°F): 70
 Discharge Style: Vertical Unobstructed
 Authority for Requirement: DNR Construction Permit 05-A-734-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Numbers: See Table: Storage Tanks

Associated Equipment

Associated Emission Unit ID Numbers: See Table: Storage Tanks

Emissions Control Equipment ID Numbers: See Table: Storage Tanks

Emissions Control Equipment Descriptions: See Table: Storage Tanks

Table: Storage Tanks

Emission Point Number	Emission Unit Number	Emission Unit Description	Raw Material & Size (gal)	Control Equipment Description	DNR Construction Permits
TK001	TK001	190 Proof Ethanol Storage Tank	Ethanol 188,000	Internal Floating Roof (CE TK001)	05-A-727-S2
TK002	TK002	200 Proof Ethanol Storage Tank	Ethanol 188,000	Internal Floating Roof (CE TK002)	05-A-728-S2
TK003	TK003	Denaturant Storage Tank	Denaturant 188,000	Internal Floating Roof (CE TK003)	05-A-729-S2
TK004	TK004	Denatured Ethanol Storage Tank	Denatured Ethanol 1,447,000	Internal Floating Roof (CE TK004)	05-A-730-S2
TK005	TK005	Denatured Ethanol Storage Tank	Denatured Ethanol 1,447,000	Internal Floating Roof (CE TK005)	05-A-731-S2

Applicable Requirements

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

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

Emission Point Number	Emission Unit Number	VOC Limit (tons/yr)	Single HAP Limit (tons/yr)	Total HAP Limit (tons/yr)	DNR Construction Permit
TK001	TK001	0.67	0.014 ⁽¹⁾	0.014	05-A-727-S2
TK002	TK002	0.67	0.014 ⁽¹⁾	0.014	05-A-728-S2
TK003	TK003	1.80	0.030 ⁽²⁾	0.036	05-A-729-S2
TK004	TK004	0.50	0.010 ⁽¹⁾	0.020	05-A-730-S2
TK005	TK005	0.50	0.010 ⁽¹⁾	0.020	05-A-731-S2

⁽¹⁾Highest SHAP is acetaldehyde.

⁽²⁾Highest SHAP is n-Hexane

NSPS Applicability:

Tanks TK001, TK002, TK003, TK004 and TK005 are subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60 Subpart Kb) and the General Provisions (40 CFR Part 60 Subpart A).

Authority for Requirement: 40 CFR 60 Subpart Kb
567 IAC 23.1(2)"ddd"
40 CFR 60 Subpart A
567 IAC 23.1(2)
See Table - Storage Tanks

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

Operating Limits

1. The fixed roof in combination with an internal roof shall meet the specifications as stated in 40 CFR Part 60 §60.112b(a)(1).
2. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart Kb-*Standards of Performance for Volatile Organic Liquid Storage Vessels* specifically §60.115b and §60.116b.
3. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified in 40 CFR Part 60 Subpart A-General Provisions §§60.1 through 60.19.

Reporting & Recordkeeping

1. Records and reports as specified in 40 CFR Part 60 §60.115b(a) *Reporting and recordkeeping requirements*.
2. Record as specified in 40 CFR Part 60 §60.116b(a), the owner or operator shall keep copies of all records required by §60.116b(b) for the life of the source.
3. Record as specified in 40 CFR Part 60 §.116b(b), the owner or operator shall keep readily accessible records showing the dimensions of the storage vessel and analysis showing the capacity of the vessel.
4. As specified in 40 CFR Part 60 §60.116b(c), the owner or operator shall maintain a record of the volume stored, the period of storage, and the maximum true vapor pressure of that volume during the respective storage period.
5. Record annually, the net material throughput in gallons.

Authority for Requirement: See Table: Storage Tanks

Emission Point Characteristics

The emission points shall conform to the specifications listed below.

Emission Point Number	Emission Unit Number	Construction Permit	Height (feet)	Diameter (inches)	Exhaust Flowrate (scfm)	Exhaust Temp. (°F)	Discharge Style
TK001	TK001	05-A-727-S2	39.5	10	Working/ Breathing Loss	Ambient	Downward
TK002	TK002	05-A-728-S2	39.5	10	Working/ Breathing Loss	Ambient	Downward
TK003	TK003	05-A-729-S2	39.5	10	Working/ Breathing Loss	Ambient	Downward
TK004	TK004	05-A-730-S2	46	10	Working/ Breathing Loss	Ambient	Downward
TK005	TK005	05-A-731-S2	46	10	Working/ Breathing Loss	Ambient	Downward

Authority for Requirement: See Table: Storage Tanks

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: TK006

Associated Equipment

Associated Emission Unit ID Number: TK006

Emission Unit vented through this Emission Point: TK006

Emission Unit Description: Fuel Additive Storage Tank

Raw Material/Fuel: Fuel Additive

Rated Capacity: 2,300 gallons

Applicable Requirements

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

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

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 1.50 tons/year

Authority for Requirement: DNR Construction Permit 05-A-732-S2

Pollutant: Hazardous Air Pollutant, Single (SHAP)

Emission Limit(s): 0.010 tons/year ⁽¹⁾

Authority for Requirement: DNR Construction Permit 05-A-732-S2

⁽¹⁾Highest SHAP is NOT Acetaldehyde.

Pollutant: Hazardous Air Pollutant, Total (THAP)

Emission Limit(s): 0.010 tons/year

Authority for Requirement: DNR Construction Permit 05-A-732-S2

Operating Requirements with Associated Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

A. Retain Material Safety Data Sheet (MSDS) of all materials stored in Fuel Additive Storage Tank (TK006). MSDS shall contain VOC and HAP content of materials stored.

B. Record annually, the net material throughput in gallons.

Authority for Requirement: DNR Construction Permit 05-A-732-S2

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 9.25
Stack Opening, (inches, dia.): 2
Exhaust Flow Rate (scfm): Working/Breathing Loss
Exhaust Temperature (°F): Ambient
Discharge Style: Downward
Authority for Requirement: DNR Construction Permit 05-A-732-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Monitoring Requirements

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

Agency Approved Operation & Maintenance Plan Required? Yes No

Facility Maintained Operation & Maintenance Plan Required? Yes No

Compliance Assurance Monitoring (CAM) Plan Required? Yes No

Authority for Requirement: 567 IAC 22.108(3)

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, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, 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 Permitting & Standards Branch, 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 emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
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) 725-8694 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.
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 or greenhouse gas generating substances 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
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-9526

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:

Iowa Compliance Officer
Air Branch
Enforcement and Compliance Assurance Division
U.S. EPA Region 7
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
Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(515) 725-8200

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

Wallace State Office Building
502 E 9th St.
Des Moines, IA 50319-0034
(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

Appendix A: Links to Standards

40 CFR 60 Subpart A – General Provisions

https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr60_main_02.tpl

40 CFR 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.d_0b

40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.k_0b

40 CFR 60 Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006

<https://www.ecfr.gov/cgi-bin/text-idx?node=sp40.7.60.vv>

40 CFR 63 Subpart A – General Provisions

https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr63_main_02.tpl

40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

<https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr;rgn=div6;view=text;node=40%3A14.0.1.1.1.1;idno=40;sid=e94dcfde4a04b27290c445a56e635e58;cc=ecfr>