April 18, 2019

Ms. Laura M. Crowder
Acting Director
WVDEP, Division of Air Quality
601 – 57th Street SE
Charleston, West Virginia 25304

Re: Blue Racer Midstream, LLC; Natrium Extraction and Fractionation Processing Plant (NPP); Facility ID: 051-00142; Title V Operating Permit Application

Dear Ms. Crowder,

Blue Racer Midstream, LLC (Blue Racer) and SLR International Corporation (SLR) have prepared the attached 45 CSR 30 Title V Operating Permit Application for the Natrium Extraction and Fractionation Processing Plant (NPP) located near Proctor, in Marshall County, WV.

If any additional information is needed, please feel free to contact me by telephone at (304) 545-8563 or by e-mail at jhanshaw@slrconsulting.com

Sincerely,
SLR International Corporation

Jesse Hanshaw, P.E.
Principal Engineer

Attachment: Title V Operating Permit Application

Blue Racer Midstream, LLC

Natrium Extraction and Fractionation Processing Plant (NPP)

Facility ID No. 051-00142

Proctor, West Virginia

Title V Operating Permit Application

SLR Ref: 116.01254.00003

April 2018

Title V Operating Permit Application

Prepared for:

Blue Racer Midstream, LLC
5949 Sherry Lane, Suite 1300
Dallas, TX 75225

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.

Chris Boggess
Associate Engineer

Jesse Hanshaw, P.E.
Principal Engineer

BLUEracer MIDSTREAM

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Notes:

ATTACHMENT F – N/A – Source is in compliance with all facility wide requirements
ATTACHMENT H – N/A – No CAM plan requirements at the facility

APPLICATION FOR PERMIT

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):** Blue Racer Midstream, LLC	**2. Facility Name or Location:** Natrium Extraction and Fractionation Processing Plant (NPP)
3. DAQ Plant ID No.: 051-00142	**4. Federal Employer ID No. (FEIN):** 46-1520107

5. **Permit Application Type:**

☒ Initial Permit — When did operations commence? 5/15/2013

☐ Permit Renewal — What is the expiration date of the existing permit? NA

☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☐ Corporation ☐ Governmental Agency ☒ LLC
☐ Partnership ☐ Limited Partnership

8. Number of onsite employees:

75

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____

_____

_____

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: 5949 Sherry Lane, Suite 1300		
City: Dallas	**State:** TX	**Zip:** 75225
Telephone Number:	**Fax Number:**	

12. Facility Location		
Street: 14786 Energy Road	**City:** Proctor	**County:** Marshall
UTM Easting: 512.1 km	UTM Northing: 4,400.8 km	Zone: ☒ 17 or ☐ 18
Directions: Facility is located North of New Martinsville, WV off of State Route 2 at 14786 Energy Road, Proctor, WV 26055		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☒ Yes ☐ No		**If yes, for what air pollutants?** SO2
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Ohio Pennsylvania
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: Steven L. Green		**Title:** Senior VP of Engineering and Operations
Street or P.O. Box: 5949 Sherry Lane, Suite 1300		
City: Dallas	**State:** TX	**Zip:** 75225
Telephone Number: (214) 580 - 3700	**Fax Number:** (214) 580 - 3761	
E-mail address: sgreen@caimanenergy.com		
Environmental Contact: Kenny Seaver		**Title:** Environmental Specialist
Street or P.O. Box: 553 Wheeling Avenue		
City: Cambridge	**State:** OH	**Zip:** 43725
Telephone Number: (740) 421 – 9255	**Fax Number:**	
E-mail address: kseaver@blueracermidstream.com		
Application Preparer: Jesse Hanshaw		**Title:** Principal Engineer
Company: SLR International Corporation		
Street or P.O. Box: 8 Capitol St., Suite 300		
City: Charleston	**State:** WV	**Zip:** 25301
Telephone Number: (681) 205-8949	**Fax Number:** (681) 205-8969	
E-mail address: jhanshaw@slrconsulting.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
NG Extraction and Fractionation	Methane, Ethane, Propane, i-Butane, n-Butane, Natural Gas Condensate Liquids	211130	

Provide a general description of operations.

Muliple extraction trains operate with inlet and outlet electrical compression to remove Ethane, Propane, i-Butane, n-Butane and Condensate Liquids.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☐ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☒ Section 111 NSPS	☐ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☒ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

45CSR19 – *Requirements for Pre-Construction Review, Determination of Emission Offsets for Proposed New or Modified Stationary Sources of Air Pollutants and Emission Trading for Intrasource Pollutants*; The facility-wide post-modification SO2 PTE of the plant is less than 100 TPY. Therefore the facility is not defined as a "major stationary source" under 45CSR19.

45CSR27 – *To Prevent and Control the Emissions of Toxic Air Pollutants:* Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."

40 C.F.R. 63 Subpart HH; *National Emission Standards for Hazardous Air Pollutants for Oil and Natural Gas Production Facilities:* The facility would not be subject to the equipment leak standards under 40CFR§63.769 because it is an area source of HAPs, which limits applicability under Subpart HH to the (TEG) dehydration unit only according to 63.760(b)(2) as follows:

- (b) The affected sources for major sources are listed in paragraph (b)(1) of this section and for area sources in paragraph (b)(2) of this section.
    - For area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section.

40 C.F.R. 63 Subpart DDDDD; *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters:* This subpart does not apply to the facility since it is not a major source of HAPs as defined in 40CFR§63.7575.

40 C.F.R. 63 Subpart JJJJJJ; *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources:* This subpart does not apply to the facility since the heaters are fueled by natural gas as defined in 40CFR§63.11195(e).

☒ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

R13-2896F – 3.1.1 – 45 CSR 6-3.1 – Open burning prohibited
R13-2896F – 3.1.2 – 45 CSR 6-3.2 – Open burning exemption stipulations
R13-2896F – 3.1.3 – 40 CFR Part 61 and 45 CSR 34 – Asbestos inspection and removal
R13-2896F – 3.1.4 – 45 CSR 4 – No objectionable odors
R13-2896F – 3.1.5 – 45 CSR 13-10.5 – Permanent shutdown
R13-2896F – 3.1.6 – 45 CSR 11-5.2 – Standby plans for emergency episodes
WV Code 22-5-4 (a) (14) – Annual emission inventory reporting
40 CFR Part 82 Subpart F – Ozone depleting substances
40 CFR Part 68 – Risk Management Plan
45 CSR 30-12.7 – Emergency Operating Conditions / unit replacement
R13-2896F – 3.2.1 – Emission Limit Averaging Time
R13-2896F – 3.3.1 – 45 CSR 22-5-4(a)(14-15) & 45CSR13 - Stack Testing - Conduct stack testing as required
45 CSR 30-5.1 - Monitoring information – General monitoring requirements
R13-2896F – 3.4.1 – 45 CSR 30-5.1 – Retention of records- Maintain records for a period of 5 years
R13-2896F – 3.4.2 – 45 CSR 30-5.1 - Odors - Maintain records of odor complaints and corrective actions
R13-2896F – 3.5.1 – 45 CSR 30-4.4. and 5.1.c.3.D – Responsible Official
R13-2896F – 3.5.2 – 45 CSR 30-5.1.c.3.E. – Confidential Information
R13-2896F – 3.5.3 – 45 CSR 30-5 - Communication
45 CSR 30-8 – Certified Emissions Statement
45 CSR 30-5.3.e. - Compliance certification
45 SR§30-5.1.c.3.A - Semi-annual monitoring reports.
45 CSR 30-5.7.a through e. – Emergencies
45 CSR 30-5.1.c.3.B. and C. – Deviations
45 CSR 30-4.3.h.1.B – New applicable requirements

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

R13-2896F – 3.1.3 – 40 CFR Part 61 and 45 CSR 34 – Prior to demolition/construction buildings will be inspected for asbestos and documented accordingly
R13-2896F – 3.1.4 – 45 CSR 4 – Permittee shall maintain records of all odor complaints received
R13-2896F – 3.1.5 – 45 CSR 13-10.5 – A source not operated at least 500 hours in one 12 month period within the prior five year time frame may be considered permanently shutdown
R13-2896F – 3.1.6 – 45 CSR 11 – Upon request by the Secretary, the permittee shall prepare a standby plan for reducing emissions
WV 22-5-4 – The permittee shall submit annual emission inventory reports
40 CFR Part 82 Subpart F – The permittee will prohibit maintenance, service, or repair of appliances containing ozone depleting substances without persons certified pursuant to 40 CFR 82.161
40 CFR Part 68 – Should the permittee become subject to 40 CFR Part 68, a RMP shall be submitted
45CSR§30-12.7 For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s). Proper notice will be provided to the WVDAQ
R13-2896F – 3.2.1 – Unless otherwise specified, compliance with all annual limits shall be based on a 12 month rolling total
R13-2896F – 3.3.1 – 45 CSR 22-5-4 Stack Testing – All protocols and reports will be submitted to the WVDAQ
R13-2896F – 3.4.1 – 45 CSR 30-5.1 Retention of Records - Maintain records of all information required by permit for 5 yrs.
R13-2896F – 3.4.2 – 45 CSR 30-5.1 Odors - Maintain records of all odor complaints and responses.
R13-2896F – 3.5.1 – 45 CSR 30-4.4 *and* 5.1 Responsible Official - Reports, certifications, etc. shall contain a certification by the responsible official.
R13-2896F – 3.5.2 – 45 CSR 30-5.1.c.3.E. - A permittee may request confidential treatment
R13-2896F – 3.5.3 – 45 CSR 30-5 - Communication required or permitted to be made to the DEP and/or USEPA
45 CSR 30-8 - Operator will Submit a certified emissions statement and pay fees on an annual basis
45 CSR 30-5.3.e. - The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ on an annual basis
45 CSR30-5.7.a through e. - For reporting emergency situations, refer to Section 2.17 of this permit
45 CSR 30-5.1.c.3.B. and C. – In addition to required monitoring reports, the permittee shall promptly submit supplemental reports and notices of deviations / include upset conditions, cause of deviation(s) and corrective actions.
45 CSR 30-4.3.h.1.B. – If any requirement is promulgated, the permittee will meet such requirements on a timely basis

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2896F	04/11/2019	
CO-R13,30-E-2018-10	01/22/2019	
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	233.75
Nitrogen Oxides (NO_X)	210.46
Lead (Pb)	-
Particulate Matter ($PM_{2.5}$)[1]	28.30
Particulate Matter (PM_{10})[1]	28.30
Total Particulate Matter (TSP)	28.30
Sulfur Dioxide (SO_2)	2.66
Volatile Organic Compounds (VOC)	212.69
Hazardous Air Pollutants[2]	Potential Emissions
Benzene	0.68
Toluene	1.42
Ethylbenzene	<0.01
Xylene	0.99
n-Hexane	8.00
Formaldehyde	0.57
Methanol	8.41
Total HAPs	20.16
Regulated Pollutants other than Criteria and HAP	Potential Emissions
$CO2_e$	463,720

[1]$PM_{2.5}$ and PM_{10} are components of TSP.
[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.

24. Insignificant Activities (Check all that apply)

☒ 18. Emergency road flares.

☒ 19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.

Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

US-800	Spherical Storage Tank US-800	Pressurized. No emissions other than fugitive components.
US-801	Spherical Storage Tank US-801	Pressurized. No emissions other than fugitive components.
US-804	Spherical Storage Tank US-804	Pressurized. No emissions other than fugitive components.
US-805	Spherical Storage Tank US-805	Pressurized. No emissions other than fugitive components.
V-1905	Pressurized Bullet Tank V-1905	Pressurized. No emissions other than fugitive components.
V-1915	Pressurized Bullet Tank V-1915	Pressurized. No emissions other than fugitive components.
V-1925	Pressurized Bullet Tank V-1925	Pressurized. No emissions other than fugitive components.
V-1935	Pressurized Bullet Tank V-1935	Pressurized. No emissions other than fugitive components.
TK-950	Firewater Tank	Tank does not store organic liquids.
TK-605	TEG Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-2605	TEG Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-119A	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-119B	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-840	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-810	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-850	Used Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-2436	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
UT-909	Open Drain Sump (Oil/Water)	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK2119A	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-2119B	Lube Oil Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
UK-2520	Amine Sump	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-2524	Amine Storage Tank	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.
TK-2522	Treated Water Storage Tank	Tank does not store organic liquids.
UT-607	Glycol Sump (TEG/Water)	Vapor pressure less than 1.5 psia and tank capacity less than 10,567 gal.

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☒	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☒	33.	Hydraulic and hydrostatic testing equipment.
☐	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☒	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.

24. Insignificant Activities (Check all that apply)		
☒	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☒	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☒	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

26. Emission Units

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

27. Control Devices

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)	
Name: Steven L. Green	Senior Vice President of Engineering and Operations.

Responsible official's signature:

Signature: Steven L. Green (Must be signed and dated in blue ink) Signature Date: 4-15-19

Note: Please check all applicable attachments included with this permit application:	
☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☐	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

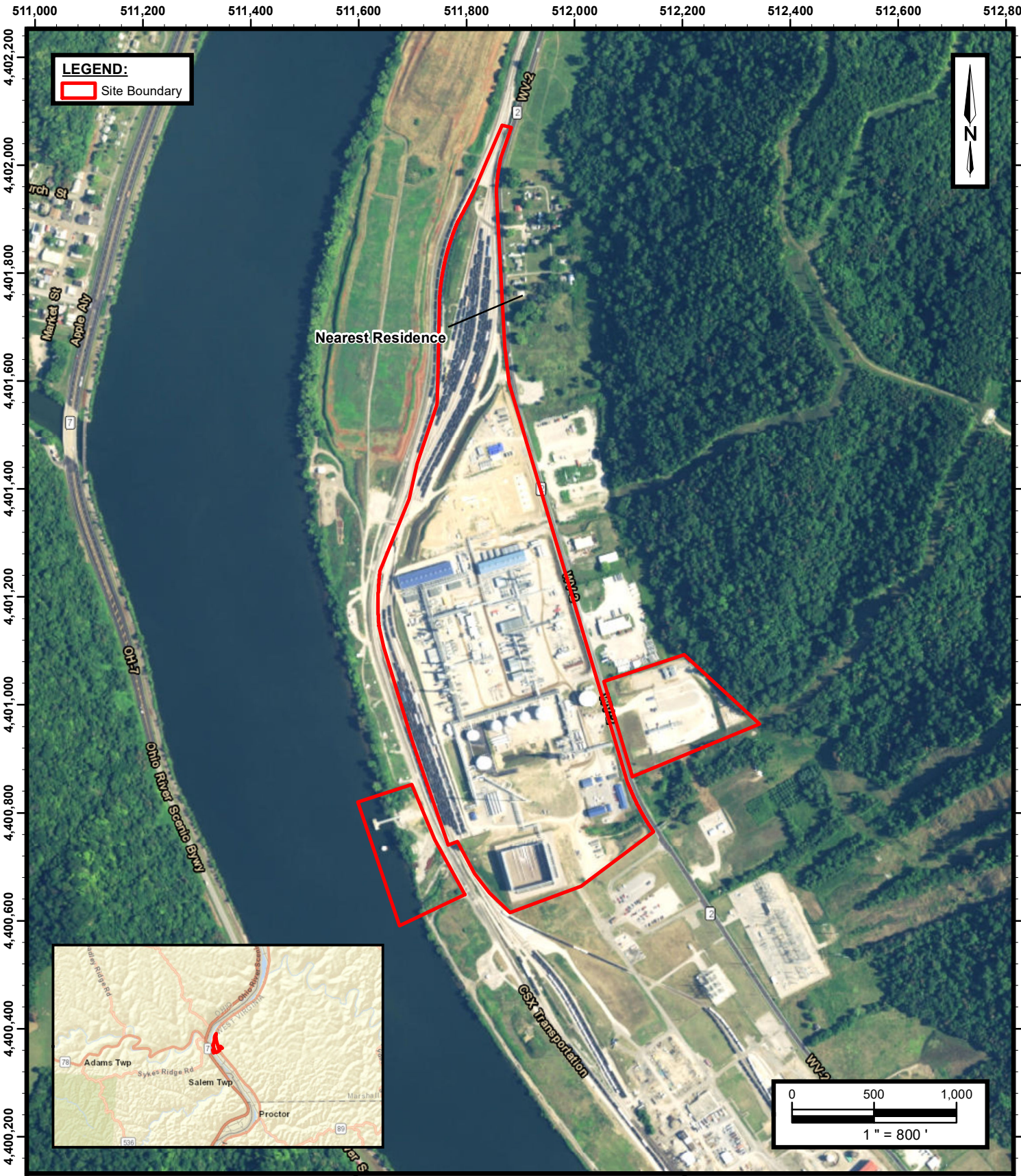
AREA MAP

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018



Blue Racer Midstream, LLC
Natrium Extraction and Fractionation Processing Plant
January 2019
Proctor, Marshall County, WV

Project No. 725010646036

Apex TITAN, Inc.
12100 Ford Road, Suite 401
Dallas, Texas 75234
Phone: (469) 365-1100
www.apexcos.com
A Subsidiary of Apex Companies, LLC

ATTACHMENT B-1

Area Map

C:\Users\bmiller\OneDrive - Apex Companies, LLC\DT_Desktop\725010646035\Attachment B-1.mxd Modified 12/1/2017 by BMiller NAD 1983 UTM Zone 17N Coordinate System, Grid Listed in Meters

ATTACHMENT B

PLOT PLAN

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

N — PLANT NORTH

TRANSFORMER LEGEND

MARK	XFMR	SERIAL NO.	GAL.
A	05-XFR-20-01A	442550A002W-WL733E	1927 GAL
B	05-XFR-20-01B	442550A002W-WL733F	1927 GAL
C	06-XFR-20-01B	441500A049W-WL734B	460 GAL
D	06-XFR-20-01A	441500A049W-WL734A	460 GAL
E	02-XFR-21-01A	44015MA039-B66A	1927 GAL
F	02-XFR-21-01B	44015MA039-B66B	1927 GAL
G	02-XFR-20-02A	442550A002W-WL733D	531 GAL
H	02-XFR-20-02A	442550A002W-WL733C	531 GAL
I	02-XFR-20-01B	442550A002W-WL733B	531 GAL
J	02-XFR-20-01A	442550A002W-WL733A	531 GAL
K	CRYO II WEST PCR 106	NO SERIAL	323 GAL
L	CRYO II EAST PCR 106	NO SERIAL	323 GAL
M	CRYO II WEST PCR 104	13950-2	323 GAL
N	CRYO II EAST PCR 104	13950-1	323 GAL
O	FRAC II WEST PCR 107	44015MA046-C191A	1807 GAL
P	FRAC II EAST PCR 107	442550A003W-WN050A	741 GAL
Q	FRAC II PCR 105	1019827071	4630 GAL
R	01-XFR-42-01A	11200119	4630 GAL
S	01-XFR-42-01B	11200120	4630 GAL

FUTURE DEVELOPMENT

STORM WATER OUTLET

STORM WATER POND

STORM RECEPTOR

TO STORM WATER OUTLET

RAILCAR LOADING

GASOLINE CAR CATCH PANS

PERIMETER ACCESS

TANK LOADING

DEAD MAN

GROUND FLARE

DOCK HOUSE

BARGE LOADING PLATFORM

PLOT TIME/DATE:

LAST SAVED: 02/26/16 BY: Christina Ewing

FILE LOCATION: N:

NOTES:

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	DESCRIPTION		BY	DATE	CHK.	DATE	APPR.	DATE
		CE		02/24/16	QK	02/24/16	QK	02/24/16
A	ISSUED FOR PERMIT							

BLUEracer MIDSTREAM

NATRIUM PROCESSING PLANT

SITE PLAN

GENERAL LAYOUT SITE PLAN

DRAWN BY: C. EWING	CHECKED: G. KRUSE	APPROVED: G. KRUSE
CREATION DATE: 02/23/2016	CHECK DATE: 02/23/2016	APPR. DATE: 02/23/2016
SCALE: 1"=75'-0"	DWG. No.: BRN-PP-2016	A

ATTACHMENT C

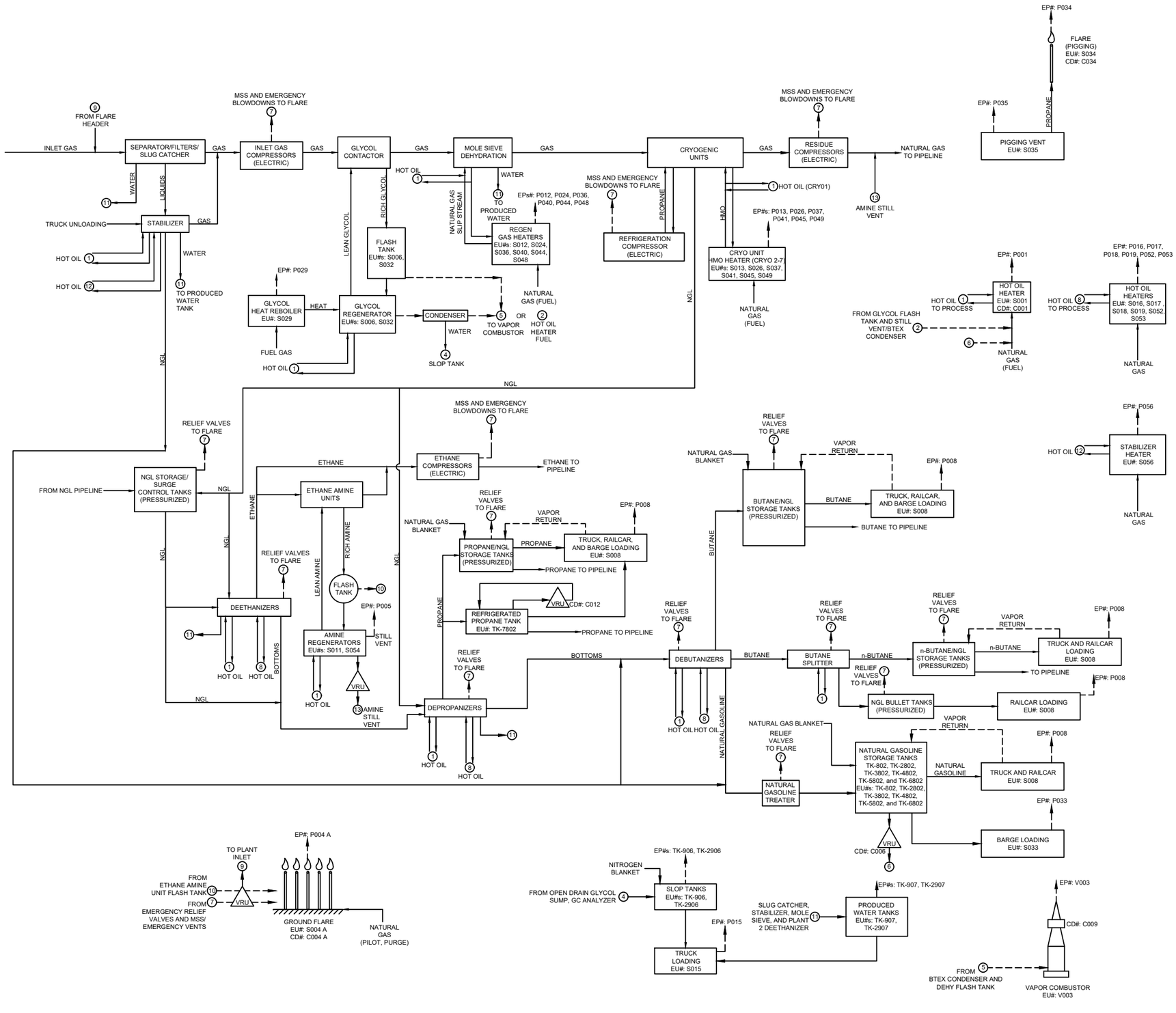
PROCESS FLOW DIAGRAM

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018



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Natrium Extraction and Fractionation Processing Plant
January 2019
Proctor, Marshall County, WV

Project No. 725010646036

ATTACHMENT F

PROCESS FLOW DIAGRAM

ATTACHMENT D

EQUIPMENT TABLE

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 19 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
P001	None	S001	Hot Oil Heater (216.7 MMBtu/hr)	216.7 MMBtu/hr	2014; Modification - 2018
P002	None	S002	Fire Pump #1	700 HP	2011 – Modification 2018
P003	None	S003	Fire Pump #2	700 HP	2011 – Modification 2018
P004A	C004A	S004A	Ground Flare	N/A	2015 – Modification 2018
P001	C001	S006	Glycol Dehydration Still Vent	460 MMscfd	2011 – Modification 2018
P008	Vapor Return to Tank	S008	Product Loading – Closed Loop	35,000 gpm	2011
ROADS	None	ROADS (S010)	Unpaved Roads	N/A	2011
P005	None	S011	Ethane Amine Regenerator	129 MMscfd	2011 – Modification 2018
P012	None	S012	Regen Gas Heater (9.7 MMBtu/hr)	9.7 MMBtu/hr	2013
P013	None	S013	Cryo HMO Heater (26.3 MMBtu/hr)	26.3 MMBtu/hr	2013
P015	None	S015	Slop Water Truck Loading	N/A	2011 – Modification 2018
P016	None	S016	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2014
P017	None	S017	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2014
P018	None	S018	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2014
P019	None	S019	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2014
P024	None	S024	Regen Gas Heater (9.7 MMBtu/hr)	9.7 MMBtu/hr	2018
P026	None	S026	Cryo HMO Heater (26.3 MMBtu/hr)	26.3 MMBtu/hr	2018

P029	None	S029	Glycol Reboiler (3.0 MMBtu/hr)	3.0 MMBtu/hr	2018
V003	C009	S032	Glycol Dehydrator Still Vent	230 MMscfd	2018
P033	None	S033	Barge Loading Vent	N/A	2017
P034	C034 Flare	S034	Flare (Pigging)	N/A	2017 – Modification 2018
P035	None	S035	Pigging Vent	N/A	2017 – Modification 2018
P036	None	S036	Regen Gas Heater (9.7 MMBtu/hr)	9.7 MMBtu/hr	2019
P037	None	S037	Cryo HMO Heater (26.3 MMBtu/hr)	26.3 MMBtu/hr	2019
P040	None	S040	Regen Gas Heater (19.28 MMBtu/hr)	19.28 MMBtu/hr	2019
P041	None	S041	Cryo HMO Heater (54.67 MMBtu/hr)	54.67 MMBtu/hr	2019
P044	None	S044	Regen Gas Heater (9.7 MMBtu/hr)	9.7 MMBtu/hr	2019
P045	None	S045	Cryo HMO Heater (26.3 MMBtu/hr)	26.3 MMBtu/hr	2019
P048	None	S048	Regen Gas Heater (9.7 MMBtu/hr)	9.7 MMBtu/hr	2019
P049	None	S049	Cryo HMO Heater (26.3 MMBtu/hr)	26.3 MMBtu/hr	2019
P052	N/A	S052	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2019
P053	N/A	S053	Hot Oil Heater (61.6 MMBtu/hr)	61.6 MMBtu/hr	2019
P054	C011	S054	Ethane Amine Regenerator	129 MMscfd	2019
P055	N/A	S055	Pressurized NGL/Condensate	N/A	2012
P056	N/A	S056	Stabilizer Heater	10.09 MMBtu/hr	2019
V003	C009	V003	Vapor Combustor (C009 for EU S032 Dehy Still Vent)	N/A	2018
P001	C001, C006	TK-802	Natural Gasoline Storage Tank TK-802	714,000 gallons	2011
P001	C001, C006	TK-2802	Natural Gasoline Storage Tank TK-2802	1,260,000 gallons	2014
P001	C001, C006	TK-3802	Natural Gasoline Storage Tank TK-3802	714,000 gallons	2019
P001	C001, C006	TK-4802	Natural Gasoline Storage Tank TK-4802	1,260,000 gallons	2019
P001	C001, C006	TK-5802	Natural Gasoline Storage Tank TK-5802	714,000 gallons	2019
P001	C001, C006	TK-6802	Natural Gasoline Storage Tank TK-6802	1,260,000 gallons	2019
TK-7802	C012	TK-7802	Refrigerated Propane Storage Tank TK-7802	4,200,000 gallons	2019
TK-906	None	TK-906	Slop Tank TK-906	500 bbl	2011 – Modification 2018

TK-907	None	TK-907	Produced Water Tank TK-907	1,500 bbl	2011 – Modification 2018
TK-2906	N/A	TK-2906	Slop Tank TK-2906	500 bbl	2019
TK-2907	N/A	TK-2907	Produced Water Tank TK-2907	1,500 bbl	2019
TK-L-1	None	TK-L-1	Gasoline Dispensing Tank	1,000 gal	2017
L-1	None	L-1	Gasoline Dispensing Loading	N/A	2017
FUG AREA 1	None	FUG AREA 1	Fugitive Area 1 (Cryo 1 (Excluding Demethanizer) & Cryo 2)	N/A	2011 – Modification 2018
FUG AREA 2	None	FUG AREA 2	Fugitive Area 2 (Cryo 1 Demethanizer & Frac 2)	N/A	2014
FUG AREA 3	None	FUG AREA 3	Fugitive Area 3 (Cryo 3)	N/A	2018
FUG AREA 4	None	FUG AREA 4	Fugitive Area 4 (Cryo 4 & Frac 1)	N/A	2019
FUG AREA 5	None	FUG AREA 5	Fugitive Area 5 (Cryo 5)	N/A	2019
FUG AREA 6	None	FUG AREA 6	Fugitive Area 6 (Cryo 6)	N/A	2019
FUG AREA 7	None	FUG AREA 7	Fugitive Area 7 (Cryo 7)	N/A	2019

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E

EMISSION UNIT FORM(S)

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (216.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S001	Hot Oil Heater (216.7 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Optimized Process Furnaces		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 216.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
216.7 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 216.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 216.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
225,571 scf/hr
1,976 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.25	14.24
Nitrogen Oxides (NO_X)	9.75	42.71
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.61	7.07
Particulate Matter (PM_{10})	1.61	7.07
Total Particulate Matter (TSP)	1.61	7.07
Sulfur Dioxide (SO_2)	0.15	0.67
Volatile Organic Compounds (VOC)	0.37	1.61
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	5.02E-03	2.20E-02
N-Hexane	1.21E-01	5.28E-01
Benzene	1.41E-04	6.16E-04
Toluene	2.28E-04	9.97E-04
Other HAPs	1.71E-04	7.49E-04
Total HAPs	1.26E-01	5.52E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 216.7 mmBtu/hr = 19.5 lb/hr] However the unit is subject to a more stringent emission limit of 1.61 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 216.7 mmBtu/hr = 671.77 lb/hr] However the unit is subject to a more stringent emission limit of 0.15 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Db
40 C.F.R. § 60.40b(a) – Applicability

40 C.F.R. § 60.42b– SO_2 Emission Standards

40 C.F.R. § 60.44b – NOx Emission Standards

40 C.F.R. § 60.48b – Monitoring Requirements

40 C.F.R. § 60.49b – Reporting / Recordkeeping Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 216.7 mmBtu/hr.

Condition 5.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	9.75	42.71
CO	3.25	14.24
$PM_{2.5}$ / PM_{10} / PM(1)	1.61	7.07
SO_2	0.15	0.67
VOCs	0.37	1.61

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 225,571 scf/hr and 1,976 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr, provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.5.a – Units firing only very low sulfur, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2 emission rate of 140 ng/J (0.32 lb/mmBtu) heat input or less are exempt from the SO_2 emissions limit in paragraph (k)(1) of this section **[40CFR§60.42b(k)(2)]**

Condition 5.1.5.b – Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from the affected facility any gases that contain NOx (expressed as NO_2) in excess of the following emission limits; (1) Low heat release rate: 0.10 lb/mmBtu / (2) High heat release rate: 0.20 lb/mmBtu **[40CFR§60.44b(a)(1)(i) and (ii)]**

Condition 5.1.5.c – Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NOx standard under §60.44b shall comply with paragraph (b)(1) of this section; (1) install, calibrate, maintain and operate CEMS for measuring NOx and O_2 or (CO_2) emissions discharged to the atmosphere, and shall record the output of the system **[40CFR§60.48b(b)(1)]**

Condition 5.1.5.d – Pursuant §60.49b(r)(2)(iv), the WVDAQ approves quarterly fuel sampling for the unit

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Db
40 C.F.R. § 60.42b(k)(2) – Units firing only very low sulfur, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO_2 emission rate of 140 ng/J (0.32 lb/mmBtu) heat input or less are exempt from the SO_2 emissions limit in paragraph (k)(1) §60.42b.

40 C.F.R. § 60.44b(a)(1)(i) – Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from the affected facility any gases that contain NOx (expressed as NO_2) in excess of the following emission limits; (1) Low heat release rate: 0.10 lb/mmBtu

40 C.F.R. § 60.46b(e)(1) – Conduct initial performance test for NOx using the CEMS to collect thirty (30) days of data

40 C.F.R. § 60.48b(b)(1) – Install, calibrate, maintain and operate CEMS for measuring NOx and O_2 or (CO_2) emissions discharged to the atmosphere, and shall record the output of the system

40 C.F.R. § 60.48b(c) – CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero span

40 C.F.R. § 60.48b(d) – Record one hour average NOx measured by the CEMS in ng/j or lb/mmbtu heat input, and used to calculate the average emission rates under §60.44b. The one hour averages shall be calculated using the data points required under § 60.13(h)(2)

40 C.F.R. § 60.49b(a) – Owner/operator shall submit notification of the date of construction and startup

40 C.F.R. § 60.49b(b) – Owner/operator shall report performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specification in Appendix B of this part

40 C.F.R. § 60.49b(h)(2)(i) – Owner/operator is required to submit excess emission reports for any excess emissions that occurred during the reporting period

40 C.F.R. § 60.49b(r) – Owner/operator shall obtain and maintain fuel receipts from the fuel supplier that certify the oil meets the definition natural gas as defined in §60.41b or perform sampling of fuel gas in accordance with an Administrator approved site specific fuel analysis plan that includes sampling on a quarterly basis.

45 C.S.R. 13, Permit R13-2896F
Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S016	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S017	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S018	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S019	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S052	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Hot Oil Heater (61.6 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S053	Hot Oil Heater (61.6 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hot Oil Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 61.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
61.6 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 61.6 MMBtu/hr	**Type and Btu/hr rating of burners:** 61.6 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
64,101 scf/hr
562 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.63	15.91
Nitrogen Oxides (NO_X)	1.48	6.47
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.46	2.01
Particulate Matter (PM_{10})	0.46	2.01
Total Particulate Matter (TSP)	0.46	2.01
Sulfur Dioxide (SO_2)	0.04	0.19
Volatile Organic Compounds (VOC)	0.33	1.45
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.53E-03	1.98E-02
N-Hexane	1.09E-01	4.76E-01
Benzene	1.27E-04	5.55E-04
Toluene	2.05E-04	8.99E-04
Other HAPs	1.54E-04	6.76E-04
Total HAPs	1.14E-01	4.98E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 61.6 mmBtu/hr = 5.54 lb/hr] However the unit is subject to a more stringent emission limit of 0.46 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 61.6 mmBtu/hr = 190.96 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 5.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 5.1.1 – MDHI for the unit shall not exceed 61.58 mmBtu/hr. Unit shall also be equipped with a Low-NOx burner.

Condition 5.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.48	6.47
CO	3.63	15.91
$PM_{2.5}$ / PM_{10} / PM(1)	0.46	2.01
SO_2	0.04	0.19
VOCs	0.33	1.45

(1) Includes condensables

Condition 5.1.3 – To demonstrate compliance with Condition 5.1.2, the quantity of natural gas consumed shall not exceed 64,101 scf/hr and 562 x 10^6 scf/yr.

Condition 5.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 5.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 5.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 5.1.6. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 5.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 5.1.4 at such reasonable times the Secretary may designate.

Condition 5.3.1. – The permittee shall conduct test(s) to determine compliance with emission limitations under 5.1.2 at such reasonable times as the Secretary may designate.

Condition 5.4.1 – To demonstrate compliance with Conditions 5.1.1 through 5.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit.

Condition 5.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (26.3 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S013	Cryo HMO Heater (26.3 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2013	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 26.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26.3 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26.3 MMBtu/hr	**Type and Btu/hr rating of burners:** 26.3 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
27,377 scf/hr
240 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.17	9.49
Nitrogen Oxides (NO_X)	2.58	11.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.20	0.86
Particulate Matter (PM_{10})	0.20	0.86
Total Particulate Matter (TSP)	0.20	0.86
Sulfur Dioxide (SO_2)	0.02	0.08
Volatile Organic Compounds (VOC)	0.14	0.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	1.93E-03	8.47E-03
N-Hexane	4.64E-02	2.03E-01
Benzene	5.41E-05	2.37E-04
Toluene	8.77E-05	3.84E-04
Other HAPs	6.59E-05	2.89E-04
Total HAPs	4.86E-02	2.13E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 26.3 mmBtu/hr = 2.37 lb/hr] However the unit is subject to a more stringent emission limit of 0.20 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 26.3 mmBtu/hr = 81.53 lb/hr] However the unit is subject to a more stringent emission limit of 0.02 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 26.3 mmBtu/hr

Condition 6.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	2.58	11.29
CO	2.17	9.49
$PM_{2.5}$ / PM_{10} / PM(1)	0.20	0.86
SO_2	0.02	0.08
VOCs	0.14	0.62

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 27,377 scf/hr and 240 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (26.3 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S026	Cryo HMO Heater (26.3 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2018	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 26.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26.3 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26.3 MMBtu/hr	**Type and Btu/hr rating of burners:** 26.3 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
27,377 scf/hr
240 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.17	9.49
Nitrogen Oxides (NO_X)	2.58	11.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.20	0.86
Particulate Matter (PM_{10})	0.20	0.86
Total Particulate Matter (TSP)	0.20	0.86
Sulfur Dioxide (SO_2)	0.02	0.08
Volatile Organic Compounds (VOC)	0.14	0.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	1.93E-03	8.47E-03
N-Hexane	4.64E-02	2.03E-01
Benzene	5.41E-05	2.37E-04
Toluene	8.77E-05	3.84E-04
Other HAPs	6.59E-05	2.89E-04
Total HAPs	4.86E-02	2.13E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 26.3 mmBtu/hr = 2.37 lb/hr] However the unit is subject to a more stringent emission limit of 0.20 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 26.3 mmBtu/hr = 81.53 lb/hr] However the unit is subject to a more stringent emission limit of 0.02 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 26.3 mmBtu/hr

Condition 6.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	2.58	11.29
CO	2.17	9.49
$PM_{2.5}$ / PM_{10} / PM(1)	0.20	0.86
SO_2	0.02	0.08
VOCs	0.14	0.62

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 27,377 scf/hr and 240 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (26.3 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S037	Cryo HMO Heater (26.3 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 26.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26.3 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26.3 MMBtu/hr	**Type and Btu/hr rating of burners:** 26.3 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
27,377 scf/hr
240 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.17	9.49
Nitrogen Oxides (NO_X)	2.58	11.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.20	0.86
Particulate Matter (PM_{10})	0.20	0.86
Total Particulate Matter (TSP)	0.20	0.86
Sulfur Dioxide (SO_2)	0.02	0.08
Volatile Organic Compounds (VOC)	0.14	0.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	1.93E-03	8.47E-03
N-Hexane	4.64E-02	2.03E-01
Benzene	5.41E-05	2.37E-04
Toluene	8.77E-05	3.84E-04
Other HAPs	6.59E-05	2.89E-04
Total HAPs	4.86E-02	2.13E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 26.3 mmBtu/hr = 2.37 lb/hr] However the unit is subject to a more stringent emission limit of 0.20 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 26.3 mmBtu/hr = 81.53 lb/hr] However the unit is subject to a more stringent emission limit of 0.02 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 26.3 mmBtu/hr

Condition 6.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	2.58	11.29
CO	2.17	9.49
$PM_{2.5}$ / PM_{10} / PM(1)	0.20	0.86
SO_2	0.02	0.08
VOCs	0.14	0.62

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 27,377 scf/hr and 240 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (54.67 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S041	Cryo HMO Heater (54.67 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 54.67 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
54.67 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 54.67 MMBtu/hr	**Type and Btu/hr rating of burners:** 54.67 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
56,908 scf/hr
499 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.50	19.72
Nitrogen Oxides (NO_X)	5.36	23.48
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.41	1.78
Particulate Matter (PM_{10})	0.41	1.78
Total Particulate Matter (TSP)	0.41	1.78
Sulfur Dioxide (SO_2)	0.04	0.17
Volatile Organic Compounds (VOC)	0.29	1.29
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	4.02E-03	1.76E-02
N-Hexane	9.65E-02	4.23E-01
Benzene	1.13E-04	4.93E-04
Toluene	1.82E-04	7.98E-04
Other HAPs	1.37E-04	6.00E-04
Total HAPs	1.01E-01	4.42E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 54.67 mmBtu/hr = 4.92 lb/hr] However the unit is subject to a more stringent emission limit of 0.41 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.b.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 54.67 mmBtu/hr = 169.48 lb/hr] However the unit is subject to a more stringent emission limit of 0.04 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.b.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 54.67 mmBtu/hr

Condition 6.1.2.b. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	5.36	23.48
CO	4.50	19.72
$PM_{2.5}$ / PM_{10} / PM(1)	0.41	1.78
SO_2	0.04	0.17
VOCs	0.29	1.29

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 56,908 scf/hr and 499 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (26.3 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S045	Cryo HMO Heater (26.3 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 26.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26.3 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26.3 MMBtu/hr	**Type and Btu/hr rating of burners:** 26.3 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
27,377 scf/hr
240 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.17	9.49
Nitrogen Oxides (NO_X)	2.58	11.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.20	0.86
Particulate Matter (PM_{10})	0.20	0.86
Total Particulate Matter (TSP)	0.20	0.86
Sulfur Dioxide (SO_2)	0.02	0.08
Volatile Organic Compounds (VOC)	0.14	0.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	1.93E-03	8.47E-03
N-Hexane	4.64E-02	2.03E-01
Benzene	5.41E-05	2.37E-04
Toluene	8.77E-05	3.84E-04
Other HAPs	6.59E-05	2.89E-04
Total HAPs	4.86E-02	2.13E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 26.3 mmBtu/hr = 2.37 lb/hr] However the unit is subject to a more stringent emission limit of 0.20 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 26.3 mmBtu/hr = 81.53 lb/hr] However the unit is subject to a more stringent emission limit of 0.02 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 26.3 mmBtu/hr

Condition 6.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	2.58	11.29
CO	2.17	9.49
$PM_{2.5}$ / PM_{10} / PM(1)	0.20	0.86
SO_2	0.02	0.08
VOCs	0.14	0.62

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 27,377 scf/hr and 240 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Cryo HMO Heater (26.3 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S049	Cryo HMO Heater (26.3 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Cryo HMO Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 26.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26.3 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 26.3 MMBtu/hr	**Type and Btu/hr rating of burners:** 26.3 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
27,377 scf/hr
240 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.17	9.49
Nitrogen Oxides (NO_X)	2.58	11.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.20	0.86
Particulate Matter (PM_{10})	0.20	0.86
Total Particulate Matter (TSP)	0.20	0.86
Sulfur Dioxide (SO_2)	0.02	0.08
Volatile Organic Compounds (VOC)	0.14	0.62
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	1.93E-03	8.47E-03
N-Hexane	4.64E-02	2.03E-01
Benzene	5.41E-05	2.37E-04
Toluene	8.77E-05	3.84E-04
Other HAPs	6.59E-05	2.89E-04
Total HAPs	4.86E-02	2.13E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 26.3 mmBtu/hr = 2.37 lb/hr] However the unit is subject to a more stringent emission limit of 0.20 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 26.3 mmBtu/hr = 81.53 lb/hr] However the unit is subject to a more stringent emission limit of 0.02 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.a.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 26.3 mmBtu/hr

Condition 6.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	2.58	11.29
CO	2.17	9.49
$PM_{2.5}$ / PM_{10} / PM(1)	0.20	0.86
SO_2	0.02	0.08
VOCs	0.14	0.62

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 27,377 scf/hr and 240 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Stabilizer Heater (10.09 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S056	Stabilizer Heater (10.09 MMBtu/hr)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Stabilizer Heater, Indirect heat exchanger

Manufacturer:	**Model number:**	**Serial number:**
Heatec		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 10.09 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
10.09 MMBtu		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 10.09 MMBtu/hr	**Type and Btu/hr rating of burners:** 10.09 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,503 scf/hr
92 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.83	3.64
Nitrogen Oxides (NO_X)	0.99	4.33
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.08	0.33
Particulate Matter (PM_{10})	0.08	0.33
Total Particulate Matter (TSP)	0.08	0.33
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.24
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.42E-04	3.25E-03
N-Hexane	1.78E-02	7.80E-02
Benzene	2.08E-05	9.10E-05
Toluene	3.36E-05	1.47E-04
Other HAPs	2.53E-05	1.11E-04
Total HAPs	1.86E-02	8.16E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 CSR§2-4.1.b – Particulate Matter Emission Limitation – The total allowable emission rate of PM for a type 'b' fuel burning unit shall be the product of 0.09 and the total design heat input for such units provided however that no more than 600 lbs/hr of PM shall be discharged into the open air from all such units. [0.09 x 10.09 mmBtu/hr = 0.91 lb/hr] However the unit is subject to a more stringent emission limit of 0.08 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.c.

45 CSR§2.6 – Units constructed after October 1, 1974 shall be registered with the Director

45 CSR§2.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 [XIX] and 30 of Title 45.

45 CSR§2.8.4.b – Exemptions; Units which combust natural gas shall be exempt from the requirements of subdivision 8.1.a and subsection 8.2.

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 10.09 mmBtu/hr = 31.28 lb/hr] However the unit is subject to a more stringent emission limit of 0.01 lb/hr as specified in 45 CSR 13, Permit R13-2896F, Condition 6.1.2.c.

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.40c(a) – Applicability

40 C.F.R. § 60.48c – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 6.1.1 – MDHI for the unit shall not exceed 10.09 mmBtu/hr

Condition 6.1.2.c. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.99	4.33
CO	0.83	3.64
$PM_{2.5}$ / PM_{10} / PM(1)	0.08	0.33
SO_2	0.01	0.03
VOCs	0.05	0.24

(1) Includes condensables

Condition 6.1.3 – To demonstrate compliance with Condition 6.1.2, the quantity of natural gas consumed shall not exceed 10,503 scf/hr and 92 x 10^6 scf/yr.

Condition 6.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 6.1.4.b – Permittee shall not cause, suffer, allow, or permit the discharge of PM into the open air form any fuel burning unit, measured in terms of lbs/hr in excess of the product of 0.09 and the total DHI for the fuel burning unit in mmBTU/hr,

provided that no more than 1200 lbs/hr of PM shall be discharged into the open air. **[45CSR§2-4.1(a)]**

Condition 6.1.4.c – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

Condition 6.1.5. – The unit is subject to all applicable provisions of 40 CFR 60, Subpart Dc, provided that compliance with any more stringent limitation set forth under this permit shall also be demonstrated.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2
45 CSR§2-3.2. – Compliance shall be determined using Method 9

45 CSR§2-8.3.c – Owner/operators shall maintain records of the operating schedule and quantity and quality of fuel consumed. Such records are to be maintained onsite and made available to the Director or his duly authorized representative upon request.

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

40 C.F.R. 60 Subpart Dc
40 C.F.R. § 60.48c(a) – Permittee shall submit notification of the date of construction, reconstruction, or actual startup

40 C.F.R. § 60.48c(g)(1) – Record and maintain records of the amount of each fuel combusted during each operating day; or

40 C.F.R. § 60.48c(g)(2) – Record and maintain records of the amount of each fuel combusted during each calendar month; or

40 C.F.R. § 60.48c(g)(3) – Record and maintain records of the total amount of each fuel delivered to that property during each calendar month.

40 C.F.R. § 60.48c(i) – Maintain records for 2 years.

45 C.S.R. 13, Permit R13-2896F

Condition 6.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 6.1.4 at such reasonable times the Secretary may designate.

Condition 6.3.1. – Compliance with VE requirements of 6.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 6.4.1 – To demonstrate compliance with Conditions 6.1.1 through 6.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 6.1.2,

Condition 6.4.2 – The permittee shall maintain records of all monitoring data required by Condition 6.2.1.

Condition 6.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (9.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S012	Regen Gas Heater (9.7 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2013	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 9.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 9.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,097 scf/hr
88 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.80	3.50
Nitrogen Oxides (NO_X)	0.95	4.17
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.07	0.32
Particulate Matter (PM_{10})	0.07	0.32
Total Particulate Matter (TSP)	0.07	0.32
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.13E-04	3.12E-03
N-Hexane	1.71E-02	7.50E-02
Benzene	2.00E-05	8.75E-05
Toluene	3.23E-05	1.42E-04
Other HAPs	2.43E-05	1.06E-04
Total HAPs	1.79E-02	7.84E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 9.7 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.95	4.17
CO	0.80	3.50
$PM_{2.5}$ / PM_{10} / PM(1)	0.07	0.32
VOCs	0.05	0.23

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 10,097 scf/hr and 88 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 C.S.R. 13, Permit R13-2896F
Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (9.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S024	Regen Gas Heater (9.7 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2018	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 9.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 9.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,097 scf/hr
88 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.80	3.50
Nitrogen Oxides (NO_X)	0.95	4.17
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.07	0.32
Particulate Matter (PM_{10})	0.07	0.32
Total Particulate Matter (TSP)	0.07	0.32
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.13E-04	3.12E-03
N-Hexane	1.71E-02	7.50E-02
Benzene	2.00E-05	8.75E-05
Toluene	3.23E-05	1.42E-04
Other HAPs	2.43E-05	1.06E-04
Total HAPs	1.79E-02	7.84E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 9.7 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.95	4.17
CO	0.80	3.50
$PM_{2.5}$ / PM_{10} / PM(1)	0.07	0.32
VOCs	0.05	0.23

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 10,097 scf/hr and 88 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 C.S.R. 13, Permit R13-2896F
Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (9.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S036	Regen Gas Heater (9.7 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 9.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 9.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,097 scf/hr
88 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.80	3.50
Nitrogen Oxides (NO_X)	0.95	4.17
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.07	0.32
Particulate Matter (PM_{10})	0.07	0.32
Total Particulate Matter (TSP)	0.07	0.32
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.13E-04	3.12E-03
N-Hexane	1.71E-02	7.50E-02
Benzene	2.00E-05	8.75E-05
Toluene	3.23E-05	1.42E-04
Other HAPs	2.43E-05	1.06E-04
Total HAPs	1.79E-02	7.84E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 9.7 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.95	4.17
CO	0.80	3.50
$PM_{2.5}$ / PM_{10} / PM(1)	0.07	0.32
VOCs	0.05	0.23

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 10,097 scf/hr and 88 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 C.S.R. 13, Permit R13-2896F
Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (19.28 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S040	Regen Gas Heater (19.28 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 19.28 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 19.28 MMBtu/hr	**Type and Btu/hr rating of burners:** 19.28 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
20,069 scf/hr
176 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	1.59	6.95	
Nitrogen Oxides (NO_X)	1.89	8.28	
Lead (Pb)			
Particulate Matter ($PM_{2.5}$)	0.14	0.63	
Particulate Matter (PM_{10})	0.14	0.63	
Total Particulate Matter (TSP)	0.14	0.63	
Sulfur Dioxide (SO_2)	0.01	0.06	
Volatile Organic Compounds (VOC)	0.10	0.46	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
CH2O	1.42E-03	6.21E-03	
N-Hexane	1.71E-02	1.49E-01	
Benzene	3.97E-05	1.74E-04	
Toluene	6.43E-05	2.81E-04	
Other HAPs	4.83E-05	2.11E-04	
Total HAPs	3.56E-02	1.56E-01	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 2
45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 10
45 CSR§10-3.1.e – SO_2 Emission Limitation; The total allowable emission rate of SO_2 for the type 'b' fuel burning unit located in a Priority 1 Region shall be the product of 3.1 and the total design heat input discharging through the stack in mmBtu/hr [3.1 x 19.28 mmBtu/hr = 59.77 lb/hr]

45 CSR§10.6 – Unit shall be registered with the Director within 30 days of commencement of construction

45 CSR§10.7 – Unit shall be permitted in accordance with W. Va. Code 22-5-1 et seq., and Series 13, 14, 19 and 30 of Title 45.

45 CSR§10.10.3 – Exemptions; Units which combust natural gas shall be exempt from the requirements of section 8.

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 19.28 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1.89	8.28
CO	1.59	6.95
$PM_{2.5}$ / PM_{10} / PM(1)	0.14	0.63
VOCs	0.10	0.46

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 20,069 scf/hr and 176 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 2

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 CSR§2-9.3.a – SSM excess opacity periods < 30 min and <= 40% may be reported on a quarterly basis unless otherwise required by the Director

45 C.S.R. 13, Permit R13-2896F

Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (9.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S044	Regen Gas Heater (9.7 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 9.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 9.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,097 scf/hr
88 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.80	3.50
Nitrogen Oxides (NO_X)	0.95	4.17
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.07	0.32
Particulate Matter (PM_{10})	0.07	0.32
Total Particulate Matter (TSP)	0.07	0.32
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.13E-04	3.12E-03
N-Hexane	1.71E-02	7.50E-02
Benzene	2.00E-05	8.75E-05
Toluene	3.23E-05	1.42E-04
Other HAPs	2.43E-05	1.06E-04
Total HAPs	1.79E-02	7.84E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 9.7 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.95	4.17
CO	0.80	3.50
$PM_{2.5}$ / PM_{10} / PM(1)	0.07	0.32
VOCs	0.05	0.23

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 10,097 scf/hr and 88 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 C.S.R. 13, Permit R13-2896F
Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Regen Gas Heater (9.7 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S048	Regen Gas Heater (9.7 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Regen Gas Heater, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**
Heatec, Inc.		
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 9.7 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 9.7 MMBtu/hr	**Type and Btu/hr rating of burners:** 9.7 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
10,097 scf/hr
88 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.80	3.50
Nitrogen Oxides (NO_X)	0.95	4.17
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.07	0.32
Particulate Matter (PM_{10})	0.07	0.32
Total Particulate Matter (TSP)	0.07	0.32
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.05	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	7.13E-04	3.12E-03
N-Hexane	1.71E-02	7.50E-02
Benzene	2.00E-05	8.75E-05
Toluene	3.23E-05	1.42E-04
Other HAPs	2.43E-05	1.06E-04
Total HAPs	1.79E-02	7.84E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 7.1.1 – MDHI for the unit shall not exceed 9.7 mmBtu/hr

Condition 7.1.2.a. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	0.95	4.17
CO	0.80	3.50
$PM_{2.5}$ / PM_{10} / PM(1)	0.07	0.32
VOCs	0.05	0.23

(1) Includes condensables

Condition 7.1.3 – To demonstrate compliance with Condition 7.1.2, the quantity of natural gas consumed shall not exceed 10,097 scf/hr and 88 x 10^6 scf/yr.

Condition 7.1.4.a – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

Condition 7.1.4.b – Visible emission standards set forth in Section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns, and malfunctions **[45CSR§2-9.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2 – Compliance shall be determined using Method 9

45 C.S.R. 13, Permit R13-2896F
Condition 7.2.1. – Permittee shall conduct Method 9 emissions observations in accordance with 40 CFR 60 Appendix A for the purpose of demonstrating compliance with Condition 7.1.4 at such reasonable times the Secretary may designate.

Condition 7.3.1. – Compliance with VE requirements of 7.1.4 shall be determined in accordance with 40 CFR 60 Appendix A, Method 9, or by using measurements from continuous opacity monitoring systems approved by the Director. **[45CSR§2-3.2]**

Condition 7.4.1 – To demonstrate compliance with Conditions 7.1.1 through 7.1.3, the permittee shall monitor and record the monthly and 12 month rolling total of the amount for natural gas consumed by the unit 7.1.2,

Condition 7.4.2 – The permittee shall maintain records of all monitoring data required by Condition 7.2.1.

Condition 7.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fire Pump #1

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S002	Fire Pump #1	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel Fired Engine

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar	C18	

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 700 HP

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		100 hrs/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 700 HP	**Type and Btu/hr rating of burners:** 137,030 btu/gal

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel fuel
35.9 gal/hr
3,590 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100 ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.01	0.20
Nitrogen Oxides (NO_X)	4.63	0.23
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.23	0.01
Particulate Matter (PM_{10})	0.23	0.01
Total Particulate Matter (TSP)	0.23	0.01
Sulfur Dioxide (SO_2)	0.01	<0.01
Volatile Organic Compounds (VOC)	4.63	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	3.9E-04	1.9E-05
Benzene	3.8E-03	1.9E-04
Toluene	1.4E-03	6.9E-05
Xylene	9.5E-04	4.7E-05
Total HAPs	8.0E-03	4.0E-04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 3.4 – Large Stationary Diesel and All Stationary Dual-Fuel Engines

40 CFR 60 Subpart IIII, Table 4

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart IIII
40 C.F.R. § 60.4200(a)(2)(ii) – Applicability

40 C.F.R. § 60.4205(c), 60.4206, and Table 4 (Line 18) – Operating Requirements

40 C.F.R. § 60.4207(b) – Fuel Requirements

40 C.F.R. § 60.4209(a) – Monitoring Requirements

40 C.F.R. § 60. 4211(a), (c), (f) and (g) – Compliance Requirements

40 C.F.R. § 60.4214(b) – Recordkeeping Requirements

40 C.F.R. 63 Subpart ZZZZ
40 C.F.R. § 63.6590(c)(1) – General Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 8.1.1 – Quantity of diesel fuel consumed by the unit shall not exceed 35.9 gal/hr and 3,590 gal/year per rolling (12) moth period during non-emergency use.

Condition 8.1.2. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	4.63	0.23
CO	4.01	0.20
$PM_{2.5}$ / PM_{10} / PM(1)	0.23	0.01
VOCs	4.63	0.23

(1) Includes condensables

Condition 8.1.3 – Maximum yearly hours of operation for the unit shall not exceed an annual limit of 100 hrs of non-emergency use as recorded with a non-resettable hour meter. Compliance with the limitation shall be determined using a 12 month rolling total.

Condition 8.1.4. – Owner/Operators of fire pump engines with a displacement of less than 30 litres per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. **[40CFR§60.4205(c)]**

Condition 8.1.5. – An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for such engines under this part. **[40CFR§63.6590(c)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart IIII
40 C.F.R. § 60.4205(c), 60.4206, and Table 4 (Line 18) – Unit shall comply with the emission standards set forth for NMHC + NOx (3.0 g/hp-hr), CO (2.6 g/hp-hr) and PM (0.15 g/hp-hr) for the entire life of the engine.

40 C.F.R. § 60.4207(b) – Ensure diesel fuel used in unit meets the requirements of 40CFR 80.510(b) for nonroad diesel fuel.

40 C.F.R. § 60.4209(a) – Install a non-resettable meter to monitor hours of operation.

40 C.F.R. § 60.4211(c) – Comply with the emissions standards specified in § 60.4205(c) by purchasing an engine certified to the emission standards. The unit must be installed and configured according to the manufacturer's related specifications.

40 C.F.R. § 60.4211(f) – Compliance/Operation;

- There is no time limit to operation of unit during emergency situations
- Operation of unit shall be limited to a maximum of 100 hours per calendar year for any combination of maintenance & readiness testing, emergency demand response, periods of voltage or frequency deviations and select non-emergency operations.
- Non-emergency operations shall not exceed 50 hours per calendar year and are to be counted as part of the maximum 100 hours per calendar year operation limitation as described in the previous paragraph

40 C.F.R. § 60.4211(g) – Owner/operators that do not install, configure, operate, and maintain units according to the manufacturer's emission related written instructions, or if a change is made in a way that is not permitted by the manufacturer, compliance must be demonstrated by developing a maintenance plan and keeping records of maintenance conducted. In addition, an initial performance test shall be conducted to demonstrate compliance within one year of startup or within one year of the change made not permitted by the manufacturer. Subsequent testing shall be completed every 8,760 hours of operation or three years whichever comes first.

40 C.F.R. § 60.4214(b) – Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

40 C.F.R. 63 Subpart ZZZZ

40 C.F.R. 63.6590(c)(1) – Demonstrate compliance with this regulation by complying with the applicable parts of 40 CFR 60 Subpart IIII. No further requirements will apply under this subpart

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fire Pump #2

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S003	Fire Pump #2	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel Fired Engine

Manufacturer:	**Model number:**	**Serial number:**
Caterpillar	C18	

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 700 HP

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		100 hrs/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 700 HP	**Type and Btu/hr rating of burners:** 137,030 btu/gal

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel fuel
35.9 gal/hr
3,590 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100 ft^3	N/A	961 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.01	0.20
Nitrogen Oxides (NO_X)	4.63	0.23
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.23	0.01
Particulate Matter (PM_{10})	0.23	0.01
Total Particulate Matter (TSP)	0.23	0.01
Sulfur Dioxide (SO_2)	0.01	<0.01
Volatile Organic Compounds (VOC)	4.63	0.23
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	3.9E-04	1.9E-05
Benzene	3.8E-03	1.9E-04
Toluene	1.4E-03	6.9E-05
Xylene	9.5E-04	4.7E-05
Total HAPs	8.0E-03	4.0E-04
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 3.4 – Large Stationary Diesel and All Stationary Dual-Fuel Engines

40 CFR 60 Subpart IIII, Table 4

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart IIII
40 C.F.R. § 60.4200(a)(2)(ii) – Applicability

40 C.F.R. § 60.4205(c), 60.4206, and Table 4 (Line 18) – Operating Requirements

40 C.F.R. § 60.4207(b) – Fuel Requirements

40 C.F.R. § 60.4209(a) – Monitoring Requirements

40 C.F.R. § 60. 4211(a), (c), (f) and (g) – Compliance Requirements

40 C.F.R. § 60.4214(b) – Recordkeeping Requirements

40 C.F.R. 63 Subpart ZZZZ
40 C.F.R. § 63.6590(c)(1) – General Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 8.1.1 – Quantity of diesel fuel consumed by the unit shall not exceed 35.9 gal/hr and 3,590 gal/year per rolling (12) moth period during non-emergency use.

Condition 8.1.2. – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	4.63	0.23
CO	4.01	0.20
$PM_{2.5}$ / PM_{10} / PM(1)	0.23	0.01
VOCs	4.63	0.23

(1) Includes condensables

Condition 8.1.3 – Maximum yearly hours of operation for the unit shall not exceed an annual limit of 100 hrs of non-emergency use as recorded with a non-resettable hour meter. Compliance with the limitation shall be determined using a 12 month rolling total.

Condition 8.1.4. – Owner/Operators of fire pump engines with a displacement of less than 30 litres per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. **[40CFR§60.4205(c)]**

Condition 8.1.5. – An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for such engines under this part. **[40CFR§63.6590(c)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart IIII
40 C.F.R. § 60.4205(c), 60.4206, and Table 4 (Line 18) – Unit shall comply with the emission standards set forth for NMHC + NOx (3.0 g/hp-hr), CO (2.6 g/hp-hr) and PM (0.15 g/hp-hr) for the entire life of the engine.

40 C.F.R. § 60.4207(b) – Ensure diesel fuel used in unit meets the requirements of 40CFR 80.510(b) for nonroad diesel fuel.

40 C.F.R. § 60.4209(a) – Install a non-resettable meter to monitor hours of operation.

40 C.F.R. § 60.4211(c) – Comply with the emissions standards specified in § 60.4205(c) by purchasing an engine certified to the emission standards. The unit must be installed and configured according to the manufacturer's related specifications.

40 C.F.R. § 60.4211(f) – Compliance/Operation;

- There is no time limit to operation of unit during emergency situations
- Operation of unit shall be limited to a maximum of 100 hours per calendar year for any combination of maintenance & readiness testing, emergency demand response, periods of voltage or frequency deviations and select non-emergency operations.
- Non-emergency operations shall not exceed 50 hours per calendar year and are to be counted as part of the maximum 100 hours per calendar year operation limitation as described in the previous paragraph

40 C.F.R. § 60.4211(g) – Owner/operators that do not install, configure, operate, and maintain units according to the manufacturer's emission related written instructions, or if a change is made in a way that is not permitted by the manufacturer, compliance must be demonstrated by developing a maintenance plan and keeping records of maintenance conducted. In addition, an initial performance test shall be conducted to demonstrate compliance within one year of startup or within one year of the change made not permitted by the manufacturer. Subsequent testing shall be completed every 8,760 hours of operation or three years whichever comes first.

40 C.F.R. § 60.4214(b) – Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

40 C.F.R. 63 Subpart ZZZZ
40 C.F.R. 63.6590(c)(1) – Demonstrate compliance with this regulation by complying with the applicable parts of 40 CFR 60 Subpart IIII. No further requirements will apply under this subpart

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Emergency Generator Engine(s)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S057	Emergency Generator Engine(s)	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
4 stroke, lean burn engine

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 16,000 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		100 hrs/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 16,000 hp	**Type and Btu/hr rating of burners:** 8,000 btu/hp-hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural gas
125,490 scf/hr
12.54 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100 scf	N/A	1,065 BTU/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	141.10	7.05
Nitrogen Oxides (NO_X)	70.55	3.53
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.28	0.06
Particulate Matter (PM_{10})	1.28	0.06
Total Particulate Matter (TSP)	1.28	0.06
Sulfur Dioxide (SO_2)	0.08	<0.01
Volatile Organic Compounds (VOC)	35.27	1.76
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	6.76	0.34
Benzene	0.06	3.0E-03
Toluene	0.05	3.0E-03
Ethylbenzene	0.01	3.0E-04
Xylene	0.02	1.0E-03
Total HAPs	9.25	0.47
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 3.2 – Natural Gas Fired Reciprocating Engines

40 CFR 60 Subpart JJJJ, Table 1

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart JJJJ

40 C.F.R. § 60.4230(a)(4)(iv) – Applicability

40 C.F.R. § 60.4233(e), 60.4234, and Table 1 (Line 14) – Operating Requirements

40 C.F.R. § 60.4236(c) – Installation Requirements

40 C.F.R. § 60.4237(a) – Monitoring Requirements

40 C.F.R. § 60. 4243(b), (d), (e) and (g) – Compliance Requirements

40 C.F.R. § 60.4244 – Testing Requirements

40 C.F.R. § 60.4245(a) and (b) – Reporting Requirements

40 C.F.R. 63 Subpart ZZZZ

40 C.F.R. § 63.6590(c)(1) – General Requirements

45 C.S.R. 13, Permit R13-2896F

Condition 9.1.1 – Permittee is authorized to install and operate one (1) or more natural gas fired, 4SLB SI RICE with an aggregate horsepower to net exceed 16,000 to act emergency generators. Maximum emissions from each unit shall note exceed their individual limits as given in 40 CFR 60 Subpart JJJJ. The maximum aggregate emissions from all such engines shall not exceed the following;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	70.55	3.53
CO	141.10	7.05
$PM_{2.5}$ / PM_{10} / PM(1)	1.28	0.06
VOCs	35.27	1.76
CH2O	6.76	0.34

(1) Includes condensables

Condition 9.1.2 – Maximum yearly hours of operation for each unit shall not exceed an annual limit of 100 hrs of non-emergency use as recorded with a non-resettable hour meter. Compliance with the limitation shall be determined using a 12 month rolling total.

Condition 8.1.3. – Owner/Operators of station SI ICE with a maximum engine power greater than or equal to 75 kW (100 hp) (except gasoline and RB engines that use LPG) must comply with the emission standards in table 1 to this subpart. For owner/operators of station SI ICE with a maximum engine power greater than or equal to 100 hp (except gasoline and RB engines that use LPG) manufactured prior to 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not sever duty engines, if such stationary SI CIE was certified to a CO standard above the standard in table 1 to this subpart, then the owners/operators may meet the CO certification (not field testing) standard for which the engine was certified. **[40CFR§60.4205(c)]**

Condition 9.1.4. – An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart JJJJ. No further requirements apply for such engines under this part. **[40CFR§63.6590(c)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart JJJJ

40 C.F.R. § 60.4233(e), 60.4234 and Table 1 (Line 14) – Unit shall comply with the emission standards set forth for NOx (2.0 g/hp-hr), CO (4.0 g/hp-hr) and VOC (1.0 g/hp-hr) for the entire life of the engine.

40 C.F.R. § 60.4237(a) – Install a non-resettable meter to monitor hours of operation.

40 C.F.R. § 60.4243(b) – Compliance;

- Permittee shall keep a maintenance plan for unit and a record of all maintenance conducted.
- Permittee shall also operate in a manner consistent with good air pollution control practice to minimize emissions.
- Permittee shall conduct an initial performance test and subsequent testing every 8,760 hours or three (3) years whichever comes first.

40 C.F.R. § 60.4243(d) – Compliance/Operation;

- There is no time limit to operation of unit during emergency situations
- Operation of unit shall be limited to a maximum of 100 hours per calendar year for any combination of maintenance & readiness testing, emergency demand response, periods of voltage or frequency deviations and select non-emergency operations.
- Non-emergency operations shall not exceed 50 hours per calendar year and are to be counted as part of the maximum 100 hours per calendar year operation limitation as described in the previous paragraph

40 C.F.R. § 60.4243(e) – Permittee may operate unit using propane as alternative fuel solely during emergency operations for maximum 100 hours per calendar year.

40 C.F.R. § 60.4243(g) – Permittee shall maintain and operate air to fuel ration controllers appropriately to minimize emissions.

40 C.F.R. § 60.4245(a) and (b) – Permittee shall keep records on maintenance conducted and hours of operation, both for emergency use and non-emergency use.

40 C.F.R. 63 Subpart ZZZZ

40 C.F.R. 63.6590(c)(1) – Demonstrate compliance with this regulation by complying with the applicable parts of 40 CFR 60 Subpart JJJJ. No further requirements will apply under this subpart

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Glycol Dehydration System

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001
S006	Glycol Dehydration System	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Glycol Dehydration Unit with Flash tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 460.0 mmscf/d

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
19.17 mmscf/hr	167,900 mmscf/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	1.78	7.80
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Xylene	0.03	0.13
N-Hexane	0.04	0.17
Benzene	0.03	0.13
Toluene	0.05	0.23
Total HAPs	0.15	0.66
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

GRI-GLYCalc Version 4.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 63 Subpart HH
40 C.F.R. § 63.764 (e)(1)(ii) – Less than one (1) ton of Benzene Exemption

40 C.F.R. § 63.772 – Compliance Procedures

40 C.F.R. § 63.774 – Recordkeeping Requirements

40 C.F.R. § 63.775 – Reporting Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 10.1.1 – Maximum aggregate wet natural gas throughput to the unit shall not exceed 460 mmscf/d or 167,900 mmscf/yr

Condition 10.1.2 – Maximum glycol recirculation rate in the unit shall not exceed 40 gpm

Condition 10.1.3.a. – Maximum aggregate controlled emissions from the unit including still vent and flash tank but not including the combustion exhaust emissions from the reboiler shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
VOCs	1.78	7.80
n-Hexane	0.04	0.17
Benzene	0.03	0.13
Toluene	0.05	0.23
Xylene	0.03	0.13
Total HAPs	0.15	0.66

(1) Emissions based on GLYCalc Version 4.0 using wet gas throughputs as limited under 10.1.1 and a 10% safety factor (on uncontrolled emissions)

Condition 10.1.4 – Still vent and flash tank vapors from the unit shall be routed to the Hot Oil Heater (S001:C001) and used as fuel.

Condition 10.1.5 – Exemptions; The owner/operator at an area source is exempt from the requirements of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that records of the determination of these criteria must be maintained as required in §63.774(d)(1);

a. The actual annual average flowrate of natural gas to the unit is less than 85,000 cubic meters per day as determined by procedures specified in §63.772(b)(1) of this subpart; or **[40CFR§63.764(e)(1)(i)]**
b. The actual average emissions of benzene from the unit to the atmosphere are less than 0.90 megagram per year as determined by the procedures specified in §63.772(b)(2) of this subpart **[40CFR§63.764(e)(1)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 63 Subpart HH
40 C.F.R. § 63.772(b)(2) – Permittee shall determine actual average Benzene emissions by using GRI-GLYCalc Version 3.0 or higher or by determining an average mass rate of benzene emissions in kg/hr through direct measurement.

40 C.F.R. § 63.774(d)(i) – Maintain records of actual average Benzene emissions

40 C.F.R. § 63.775(c)(8) – TEG Units located at an area source meeting the criteria found in 63.764(e)(1)(ii) are exempt from the reporting requirement

45 C.S.R. 13, Permit R13-2896F
Condition 10.2.1. – For the purposes of demonstrating compliance with Condition 10.1.1., permittee shall monitor and maintain monthly and rolling 12 month records of the wet gas throughput in the unit.

Condition 10.2.2. – Compliance with limitations set forth in Condition 10.1.2. shall be determined using an average of a minimum quarterly readings of the actual glycol pump(s) rate. If more than one pump is operating simultaneously then the rate of each operating pump shall be recorded and totaled for compliance purposes.

Condition 10.2.3 – Representative gas sample collection and analysis frequency for dehydration units shall be determined a set forth in the schedule provided in the following table;

Wet Gas Sampling and Analysis Frequency for Dehydration Units Based on Potential HAP Emission Rates	
Each dehydration unit exempt from §63.764(d) requirements and with federally enforceable controls	Upon request by the Secretary
Each dehydration unit exempt from §63.764(d) requirements and without federally enforceable controls	An initial compliance evaluation within 180 days of registration issuance or within 180 days of start-up of the unit, whichever is later

Condition 10.3.1. – Permittee shall sample wet natural gas in accordance with GPA Method 2166 and analyze the samples in accordance with GPA 2286

Condition 10.4.4. – Permittee shall maintain records of any testing that is conducted according to Section 10.3.

Condition 10.5.2. – Any bypass event of the registered control device must be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the occurrence and shall include all pertinent information.

Condition 10.5.3. – Any time the air pollution control devices in not operating when emissions are vented to it shall be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the discovery

Are you in compliance with all applicable requirements for this emission unit? _✓__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Glycol Dehydration System

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C009
S032	Glycol Dehydration System	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Glycol Dehydration Unit with Flash tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2018	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 230.0 mmscf/d

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
9.58 mmscf/hr	83,950 mmscf/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

NA

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	2.17	9.50
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Xylene	0.14	0.61
N-Hexane	0.04	0.18
Benzene	0.03	0.13
Toluene	0.12	0.52
Total HAPs	0.33	1.45
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

GRI-GLYCalc Version 4.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 63 Subpart HH

40 C.F.R. § 63.764 (e)(1)(ii) – Less than one (1) ton of Benzene Exemption

40 C.F.R. § 63.772 – Compliance Procedures

40 C.F.R. § 63.774 – Recordkeeping Requirements

40 C.F.R. § 63.775 – Reporting Requirements

45 C.S.R. 13, Permit R13-2896F

Condition 10.1.1 – Maximum aggregate wet natural gas throughput to the unit shall not exceed 230 mmscf/d or 83,950 mmscf/yr

Condition 10.1.2 – Maximum glycol recirculation rate in the unit shall not exceed 40 gpm

Condition 10.1.3.b. – Maximum aggregate controlled emissions from the unit including still vent and flash tank but not including the combustion exhaust emissions from the reboiler shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
VOCs	2.17	9.50
n-Hexane	0.04	0.18
Benzene	0.03	0.13
Toluene	0.12	0.52
Xylene	0.14	0.61
Total HAPs	0.33	1.45

(1) Emissions based on GLYCalc Version 4.0 using wet gas throughputs as limited under 10.1.1 and a 10% safety factor (on uncontrolled emissions)

Condition 10.1.4 – Still vent and flash tank vapors from the unit shall be routed either to the Hot Oil Heater (S001:C001) and used as fuel or sent to the associated Vapor Combustor (V003:C009) for control.

Condition 10.1.5 – Exemptions; The owner/operator at an area source is exempt from the requirements of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that records of the determination of these criteria must be maintained as required in §63.774(d)(1);

a. The actual annual average flowrate of natural gas to the unit is less than 85,000 cubic meters per day as determined by procedures specified in §63.772(b)(1) of this subpart; or **[40CFR§63.764(e)(1)(i)]**

b. The actual average emissions of benzene from the unit to the atmosphere are less than 0.90 megagram per year as determined by the procedures specified in §63.772(b)(2) of this subpart **[40CFR§63.764(e)(1)(ii)]**

Condition 10.1.7.a – The vapor combustor shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a hydrocarbon combustion rate of 98.0%. The unit shall have an MDHI, including the pilot light, not to exceed 5.59 mmBtu/hr

Condition 10.1.7.b. – Emissions from the vapor combustor (not including pass-through emissions from the still vent and flash tank) shall not exceed the following;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
CO	1.54	6.74
NOx	0.77	3.38

Condition 10.1.7.c – As the annual emission limit is based on 8,760 hrs/yr, there is no limit on the annual hours of operation or waste gas combustion in the unit.

Condition 10.1.7.d – The unit shall be operated with a flame present at all times, as determined by the methods specified in Condition 10.2.4.

Condition 10.1.7.e – The unit shall be designed for and operated with no VEs as determined by the methods specified in Condition 10.3.2. except for either (1) periods not to exceed a total of one minute during any 15-minute period, determined on a monthly basis; or (2) periods not to exceed a total of two minutes during any hour, determined on a quarterly basis if the enclosed combustion device installed was a model tested under §60.5413(d) which meets the criteria in §60.5413(d)(11).

Condition 10.1.7.f – The unit shall be operated at all times when emissions are vented to it

Condition 10.1.7.g – To ensure compliance with Condition 10.1.7.f., the permittee shall monitor in accordance with Conditions 10.2.4. of this permit

Condition 10.1.7.h – The permittee shall operate and maintain the vapor combustor according to the manufacturer's specification for operating and maintenance requirements to maintain the minimum guaranteed control efficiency of 98%.

Condition 10.1.7.i. – The unit is subject to the applicable requirements specified in 45CSR6.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 63 Subpart HH

40 C.F.R. § 63.772(b)(2) – Permittee shall determine actual average Benzene emissions by using GRI-GLYCalc Version 3.0 or higher or by determining an average mass rate of benzene emissions in kg/hr through direct measurement.

40 C.F.R. § 63.774(d)(i) – Maintain records of actual average benzene emissions

40 C.F.R. § 63.775(c)(8) – TEG units located at an area source meeting the criteria found in 63.764(e)(1)(ii) are exempt from the reporting requirement

45 C.S.R. 30-5.1.c.

To demonstrate compliance, presence or absence of a flare pilot flame shall be monitored

Method 22 Opacity testing shall be conducted within one year of permit issuance or initials startup, whichever is later

The Director may require a flare compliance assessment be conducted to demonstrate compliance

Maintain records of the times and duration of all periods in which the pilot flame was absent

Maintain a record of the flare design evaluation

Maintain records of the VE opacity testing conducted

Maintain records of the wet natural gas throughput through the dehydration system

Maintain monthly hours of operation records for the dehydration unit

Maintain records for a period of five years on site or an readily accessible off-site location

45 C.S.R. 13, Permit R13-2896F

Condition 10.2.1. – For the purposes of demonstrating compliance with Condition 10.1.1., permittee shall monitor and maintain monthly and rolling 12 month records of the wet gas throughput in the unit.

Condition 10.2.2. – Compliance with limitations set forth in Condition 10.1.2. shall be determined using an average of a minimum quarterly readings of the actual glycol pump(s) rate. If more than one pump is operating simultaneously then the rate of each operating pump shall be recorded and totaled for compliance purposes.

Condition 10.2.3 – Representative gas sample collection and analysis frequency for dehydration units shall be determined a set forth in the schedule provided in the following table;

Wet Gas Sampling and Analysis Frequency for Dehydration Units Based on Potential HAP Emission Rates	
Each dehydration unit exempt from §63.764(d) requirements and with federally enforceable controls	Upon request by the Secretary
Each dehydration unit exempt from §63.764(d) requirements and without federally enforceable controls	An initial compliance evaluation within 180 days of registration issuance or within 180 days of start-up of the unit, whichever is later

Condition 10.2.4 – To demonstrate compliance with the pilot flame requirements of Section 10.1.7(d), the permittee shall follow (a) and (b);

a. The presence of a pilot flame shall continuously be monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office when the pilot light is out.
b. For any absence of pilot flame, or other indication of smoking or improper equipment operation, you must ensure the equipment is returned to proper operation as soon as practicable after the vent occurs. At a minimum you must (1) check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the combustor.
c. The permittee is exempt from the pilot flame requirements above if the permittee installed an enclosed combustion device model that was tested under §60.5413(d) which meets the criteria in §60.5413(d)(11).

Condition 10.3.1. – Permittee shall sample wet natural gas in accordance with GPA Method 2166 and analyze the samples in accordance with GPA 2286

Condition 10.3.2. – To demonstrate compliance with the VE requirements of 10.1.7(e), the permittee shall conduct VE checks and/or opacity monitoring and recordkeeping for all emissions sources subject to an opacity limit.

a. The VE check shall determine the presence of absence of VEs. Observations shall be conducted according to Method 22. At a minimum the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, and the presence of uncombined water on the visibility of emissions. The observation period shall be;
    1. A minimum of 15 minutes if demonstrating compliance with 10.1.7(e)(1); or
    2. A minimum of 1 hour if demonstrating compliance with 10.1.7(e)(2)
b. The VE check shall be conducted initially within 180 days of startup to demonstrate compliance while vapors are being sent to the control device
c. If during the VE check or at any other time VEs are observed, compliance with section 10.1.7(e) shall be determined by conducting opacity tests in accordance with Method 9 or 40CFR60, Appendix A

Condition 10.3.3. – At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the PM loading by using 40 CFR Part 60, Appendix A, Method 5, and VOC loading, by using Methods 18 and 25A of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03 or other equivalent US EPA approved methods. **[45CSR6 §§7.1 and 7.2]**

Condition 10.4.1. – For the purpose of demonstrating compliance with the continuous pilot flame requirements in 10.1.7(d), the permittee shall maintain records of the times and duration of all periods when the pilot flame was not present, and vapors were vented to the device.

a. If the permittee is demonstrating compliance to 10.2.4. with visual inspections, the permittee shall maintain records of the inspections.
b. If the permittee is demonstrating compliance to 10.2.4. with an enclosed combustion device model that was tested under the conditions §60.5413(d), a record shall be maintained of the performance test results.

Condition 10.4.2 – The permittee shall maintain records of all monitoring data required by Condition 10.3.2.

Condition 10.4.3. – Permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency to demonstrate compliance with Section 10.1.7(h)

Condition 10.4.4. – Permittee shall maintain records of any testing that is conducted according to Section 10.3.

Condition 10.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Condition 10.5.2. – Any bypass event of the registered control device must be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the occurrence and shall include all pertinent information.

Condition 10.5.3. – Any time the air pollution control devices in not operating when emissions are vented to it shall be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the discovery

Are you in compliance with all applicable requirements for this emission unit? _✓__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Vapor Combustor

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C009
V003	Vapor Combustor	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vapor Combustor

Manufacturer:	**Model number:**	**Serial number:**
TCI USA	Model 500	
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2018	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 5.59 mmBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA	NA	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X Yes ___ No	**If yes, is it?** ___ Indirect Fired X Direct Fired
Maximum design heat input and/or maximum horsepower rating: 5.59 mmBtu/hr	**Type and Btu/hr rating of burners:** 5.59 mmBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
3,438 scf/hr
30.12 mmscf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	negligible	N/A	1,626 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.54	6.74
Nitrogen Oxides (NO_X)	0.77	3.38
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.03	0.11
Particulate Matter (PM_{10})	0.03	0.11
Total Particulate Matter (TSP)	0.03	0.11
Sulfur Dioxide (SO_2)	<0.01	0.01
Volatile Organic Compounds (VOC)	<0.01	<0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	3.0E-04	1.0E-03
N-Hexane	0.01	0.03
Benzene	1.0E-05	3.0E-05
Toluene	1.0E-05	5.0E-05
Total HAPs	0.01	0.03
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion
TNRCC Guidance Document for Flares and Vapor Oxidizers

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 6

45 C.S.R. 6-4.1 – Particulate Matter Emission Limitation; The total allowable emission rate of PM for the unit shall be calculated using the following equation; Emissions (lb/hr) = F x Incinerator Capacity (tons/hr) where the F factor has a value of 5.43 for incinerators with capacity of less than 15,000 lbs/hr. The PM Emission Limit for this unit will be 0.39 lb/hr [5.43 x IC (7.14E-02) ton/hr = 0.39 lb/hr].

45 C.S.R. 6-4.3 – Opacity Limitations; No person shall cause or allow emission of smoke into atmosphere from V003 which is 20% opacity or higher.

45 C.S.R. 6-4.4 – Opacity Limitations during Startup; The provisions of subsection 4.3 shall not apply to smoke which is less than 40% opacity, for a period or periods aggregating no more than eight (8) minutes per start up.

45 C.S.R. 6-4.5 – Refuse/Ash; No person shall cause, allow or permit the emission of particles of unburned or partially burned refuse or ash from the flare which are large enough to be individually distinguished in the open air.

45 C.S.R. 6-4.6 – Objectionable Odors; Flare shall be designed, operated, and maintained so as to prevent the emission of objectionable odors

45 C.S.R. 30-12.7

Flare shall be steam-assisted, air-assisted, or non-assisted.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 63.11.

45 C.S.R. 13, Permit R13-2896F

Condition 10.1.7.a – The vapor combustor shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a hydrocarbon combustion rate of 98.0%. The unit shall have an MDHI, including the pilot light, not to exceed 5.59 mmBtu/hr

Condition 10.1.7.b. – Emissions from the vapor combustor (not including pass-through emissions from the still vent and flash tank) shall not exceed the following;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
CO	1.54	6.74
NOx	0.77	3.38

Condition 10.1.7.c – As the annual emission limit is based on 8,760 hrs/yr, there is not limit on the annual hours of operation or waste gas combustion in the unit.

Condition 10.1.7.d – The unit shall be operated with a flame present at all times, as determined by the methods specified in Condition 10.2.4.

Condition 10.1.7.e – The unit shall be designed for and operated with no VEs as determined by the methods specified in Condition 10.3.2. except for either (1) periods not to exceed a total of one minute during any 15-minute period, determined on a monthly basis; or (2) periods not to exceed a total of two minutes during any hour, determined on a quarterly basis if the enclosed combustion device installed was a model tested under §60.5413(d) which meets the criteria in §60.5413(d)(11).

Condition 10.1.7.f – The unit shall be operated at all times when emissions are vented to it

Condition 10.1.7.g – To ensure compliance with Condition 10.1.7.f., the permittee shall monitor in accordance with Conditions 10.2.4. of this permit

Condition 10.1.7.h – The permittee shall operate and maintain the vapor combustor according to the manufacturer's specification for operating and maintenance requirements to maintain the minimum guaranteed control efficiency of 98%.

Condition 10.1.7.i. – The unit is subject to the applicable requirements specified in 45CSR6.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F

Condition 10.2.4 – To demonstrate compliance with the pilot flame requirements of Section 10.1.7(d), the permittee shall follow (a) and (b);

a. The presence of a pilot flame shall continuously be monitored using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it. The pilot shall be equipped such that it sounds an alarm, or initiates notification via remote alarm to the nearest field office when the pilot light is out.
b. For any absence of pilot flame, or other indication of smoking or improper equipment operation, you must ensure the equipment is returned to proper operation as soon as practicable after the vent occurs. At a minimum you must (1) check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the combustor.
c. The permittee is exempt from the pilot flame requirements above if the permittee installed an enclosed combustion device model that was tested under §60.5413(d) which meets the criteria in §60.5413(d)(11).

Condition 10.3.2. – To demonstrate compliance with the VE requirements of 10.1.7(e), the permittee shall conduct VE checks and/or opacity monitoring and recordkeeping for all emissions sources subject to an opacity limit.

a. The VE check shall determine the presence of absence of VEs. Observations shall be conducted according to Method 22. At a minimum the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, and the presence of uncombined water on the visibility of emissions. The observation period shall be;
    1. A minimum of 15 minutes if demonstrating compliance with 10.1.7(e)(1); or
    2. A minimum of 1 hour if demonstrating compliance with 10.1.7(e)(2)
b. The VE check shall be conducted initially within 180 days of startup to demonstrate compliance while vapors are being sent to the control device
c. If during the VE check or at any other time VEs are observed, compliance with section 10.1.7(e) shall be determined by conducting opacity tests in accordance with Method 9 or 40CFR60, Appendix A

Condition 10.3.3. – At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the PM loading by using 40 CFR Part 60, Appendix A, Method 5, and VOC loading, by using Methods 18 and 25A of 40 CFR Part 60, Appendix A, Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03 or other equivalent US EPA approved methods. **[45CSR §§7.1 and 7.2]**

Condition 10.4.1. – For the purpose of demonstrating compliance with the continuous pilot flame requirements in 10.1.7(d), the permittee shall maintain records of the times and duration of all periods when the pilot flame was not present, and vapors were vented to the device.

a. If the permittee is demonstrating compliance to 10.2.4. with visual inspections, the permittee shall maintain records of the inspections.
b. If the permittee is demonstrating compliance to 10.2.4. with an enclosed combustion device model that was tested under the conditions §60.5413(d), a record shall be maintained of the performance test results.

Condition 10.4.2 – The permittee shall maintain records of all VE monitoring data required by Condition 10.3.2.

Condition 10.4.3. – Permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency to demonstrate compliance with Section 10.1.7(h)

Condition 10.4.4. – Permittee shall maintain records of any testing that is conducted according to Section 10.3.

Condition 10.5.1 – Any deviation from the allowable VE requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director as soon as practicable but in any case within ten (10) calendar days of the occurrence.

Condition 10.5.2. – Any bypass event of the registered control device must be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the occurrence and shall include all pertinent information.

Condition 10.5.3. – Any time the air pollution control devices in not operating when emissions are vented to it shall be reported in writing to the Director of the DAQ as soon as practicable, but within 10 calendar days, of the discovery

Are you in compliance with all applicable requirements for this emission unit? __✓_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Glycol Reboiler (3.0 MMBtu/hr)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S029	Glycol Reboiler (3.0 MMBtu/hr)	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Glycol Reboiler, Indirect heat exchanger
Vertical Stack

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2018	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 3.0 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** _X_ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 3.0 MMBtu/hr	**Type and Btu/hr rating of burners:** 3.0 MMBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
3,123 scf/hr
27 MMscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr / 100 scf	N/A	961 BTU/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.25	1.08
Nitrogen Oxides (NO_X)	0.29	1.29
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.02	0.10
Particulate Matter (PM_{10})	0.02	0.10
Total Particulate Matter (TSP)	0.02	0.10
Sulfur Dioxide (SO_2)	<0.01	0.01
Volatile Organic Compounds (VOC)	0.02	0.07
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
CH2O	2.21E-04	9.66E-04
N-Hexane	5.29E-03	2.32E-02
Benzene	6.18E-06	2.71E-05
Toluene	1.00E-05	4.38E-05
Other HAPs	7.51E-06	3.29E-05
Total HAPs	5.54E-03	2.43E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 CSR§2-3.1. – Opacity Limit; shall not exceed ten (10) percent opacity

45 C.S.R. 13, Permit R13-2896F
Condition 10.6.1.a – MDHI for the unit shall not exceed 3.0 mmBtu/hr and shall only be fired by natural gas

Condition 10.6.1.b – Maximum emissions from the unit shall not exceed;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
CO	0.25	1.08
NOx	0.29	1.29

Condition 10.6.1.c – As the annual emission limits given in Condition 10.6.1.b are based on 8,760 hr/yr, there is not limit on the annual hours of operation or fuel usage of the unit.

Condition 10.6.1.d – No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air form any fuel burning unit which is greater than ten (10) percent opacity based on a six minute average **[45CSR§2-3.1]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 CSR§2-3.2. – Compliance shall be determined using Method 9

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-802	Natural Gasoline Storage Tank TK-802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2012	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 714,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F
Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-2802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-2802	Natural Gasoline Storage Tank TK-2802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2014	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,260,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F

Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-3802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-3802	Natural Gasoline Storage Tank TK-3802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 714,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F
Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-4802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-4802	Natural Gasoline Storage Tank TK-4802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,260,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F

Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-5802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-5802	Natural Gasoline Storage Tank TK-5802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 714,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F
Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-6802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C001, C006
TK-6802	Natural Gasoline Storage Tank TK-6802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,260,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.1 – The storage tank will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from the storage tank shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or

liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F

Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-7802

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C012
TK-7802	Refrigerated Propane Storage Tank TK-7802	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/YYYY

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 4,200,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760 hrs

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	-
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60.110b(a) – Applicability

40 C.F.R. § 60.112b(a)(3) and 60.113b(c) – Operating Requirements

40 C.F.R. § 60.115b(c) – Reporting & Recordkeeping Requirements

40 C.F.R. § 60.116b – Monitoring Requirements

45 C.S.R. 13, Permit R13-2896F
Condition 12.1.2 – The storage tank shall utilize the VRU to recapture propane product that flashes-off from the storage tank, re-condense the product, and then route it back to the storage tank

Condition 12.1.3 – The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for the storage tank.

Condition 12.1.4 – The storage tank is subject to the applicable requirements of 40 CFR 60, Subpart Kb including the following;

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following: **[40 CFR §60.112b(a)]**
    3. A closed vent system and control device meeting the following specifications:
        i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b). **[40 CFR §60.112b(a)(3)(i)]**
        ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions. **[40 CFR §60.112b(a)(3)(ii)]**

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart Kb
40 C.F.R. § 60. 112b(a)(3) – Permittee shall install a closed vent system and control device meeting the following specifications;

i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, Subpart VV, §60.485(b).
ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

40 C.F.R. § 60.113b(c)(1) – Permittee shall submit for approval by the Administrator an operating plan containing the following;

i. Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is

to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph

ii. A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

40 C.F.R. § 60.113b(c)(2) – Permittee shall operate the closed vent system and control device and monitor the parameters on both in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case the modified plan applies.

40 C.F.R. § 60.115b(c) – Permittee shall keep records of the operating plan and records of the measured values of the parameters monitored in accordance with § 60.113b(c)(2

40 C.F.R. § 60.116b(a) – Permittee shall maintain records for at least two years

40 C.F.R. § 60.116b(b) – Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the unit

45 C.S.R. 13, Permit R13-2896F

Condition 12.2.1 – To demonstrate compliance with Condition 12.1.3, the permittee shall monitor the VRU system in accordance with the plans and specifications and manufacturer's recommendations.

Condition 12.3.1. – Permittee shall maintain accurate records of the VRU equipment inspection and/or preventative maintenance procedures

Condition 12.3.2. – Permittee shall maintain accurate records of the occurrence and duration of any malfunction or operational shutdown of the VRU during which excess emissions occur. For each such case, the following information shall be recorded;

a. The equipment involved
b. Steps taken to minimize emissions during the event
c. The duration of the event
d. The estimated increase in emissions during the event. For each such case associated with an equipment malfunction, the additional information shall also be recorded;
e. The cause of the malfunction
f. Steps taken to correct the malfunction
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction

Condition 12.3.3. – Upon request by the Director, the Permittee shall report deviations within a requested time frame of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Flare

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C004A
S004A	Ground Flare	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Ground Flare

Manufacturer:	**Model number:**	**Serial number:**
Callidus	CAL-MP	

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2015	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 19,800,000 scf/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
NA		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 22,500 mmBtu/hr	**Type and Btu/hr rating of burners:** 22,500 mmBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gas
19,800,000 scf/hr
173,448 mmscf/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100 ft^3	N/A	1,136 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3,073.64	13.43
Nitrogen Oxides (NO_X)	1,539.61	6.73
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	25.34	0.25
Particulate Matter (PM_{10})	25.34	0.25
Total Particulate Matter (TSP)	25.34	0.25
Sulfur Dioxide (SO_2)	<0.01	<0.01
Volatile Organic Compounds (VOC)	10,171.10	12.89
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Xylene	9.37E-04	2.00E-04
N-Hexane	4.53E+00	8.04E-02
Benzene	1.90E-03	4.05E-04
Toluene	2.64E-03	5.65E-04
Total HAPs	4.53E+00	8.15E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.4 – Natural Gas Combustion
TNRCC Guidance Document for Flares and Vapor Oxidizers

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 6
45 C.S.R. 6-4.1 – Particulate Matter Emission Limitation; The total allowable emission rate of PM for the unit shall be calculated using the following equation; Emissions (lb/hr) = F x Incinerator Capacity (tons/hr) where the F factor has a value of 2.72 for incinerators with capacity of greater than 15,000 lbs/hr. The PM Emission Limit for this unit will be 1,136 lb/hr [2.72 x IC (417.6) ton/hr = 1,136 lb/hr].

45 C.S.R. 6-4.3 – Opacity Limitations; No person shall cause or allow emission of smoke into atmosphere from the unit which is 20% opacity or higher.

45 C.S.R. 6-4.4 – Opacity Limitations during Startup; The provisions of subsection 4.3 shall not apply to smoke which is less than 40% opacity, for a period or periods aggregating no more than eight (8) minutes per start up.

45 C.S.R. 6-4.5 – Refuse/Ash; No person shall cause, allow or permit the emission of particles of unburned or partially burned refuse or ash from the flare which are large enough to be individually distinguished in the open air.

45 C.S.R. 6-4.6 – Objectionable Odors; Flare shall be designed, operated, and maintained so as to prevent the emission of objectionable odors

45 C.S.R. 30-12.7
Flare shall be steam-assisted, air-assisted, or non-assisted.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 63.11.

45 C.S.R. 13, Permit R13-2896F
Condition 13.1.1. – Permittee shall utilize a non-assisted Callidus CAL-MP staged, multi-point ground flare system (with a maximum aggregate pilot light heat input of 1.629 mmBtu/hr) for control of potential emissions from maintenance events, equipment blowdowns, pressure relief valves, and other controlled sources and shall have a maximum design capacity of 19.8 mmscf/hr.

Condition 13.1.2.a. – Maximum aggregate combustion exhaust emissions from operation of the Flare shall not exceed the following during routine maintenance events, equipment blowdowns, from pressure relief valves, and other controlled sources.

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	1,539.61	6.73
CO	3,073.64	13.43
$PM_{2.5}$/PM_{10}/PM	25.34	0.25
VOCs	18.34	0.18

Condition 13.1.2.b – Based on the minimum VOC DRE of 98% as given under Condition 13.1.7., maximum emissions of uncombusted pass-through VOCs and HAPs emitted at the Flare shall not exceed 10,153 lb/hr and 12.71 ton/yr of VOCs and 4.53 lb/hr and 0.08 ton/yr of HAPs.

Condition 13.1.3 – The total heat input of waste gases sent to the Flare during routine pigging events, equipment blowdowns, the ethane treater flash tanks, irregular process vents, and from the closed vent system shall not exceed 83,208 mmBtu per rolling 12 month period.

Condition 13.1.4.a – No person shall cause, suffer, allow or permit PM to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula: *Emissions (lbs/hr) = F x Incinerator Capacity (tons/yr)* where,

the factor F, is either 5.43 for a unit with a capacity of less than 15,000 lb/hr or 2.72 for a unit with a capacity of 15,000 lb/hr or greater. **[45CSR6 §4.1]**

Condition 13.1.4.b – No person shall cause or allow emission of smoke into atmosphere from the unit which is 20% opacity or higher. **[45CSR6 §4.3]**

Condition 13.1.4.c – The provisions of subsection Condition 13.1.4.b. shall not apply to smoke which is less than 40% opacity, for a period or periods aggregating no more than eight (8) minutes per start up. **[45CSR6 §4.4]**

Condition 13.1.4.d – No person shall cause, allow or permit the emission of particles of unburned or partially burned refuse or ash from the flare which are large enough to be individually distinguished in the open air.. **[45CSR6 §4.5]**

Condition 13.1.4.e – Flare shall be designed, operated, and maintained so as to prevent the emission of objectionable odors. **[45CSR6 §4.6]**

Condition 13.1.4.f – At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent U.S. EPA approved method approved by the Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option, witness or conduct such stack tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. **[45CSR6 §7.1]**

Condition 13.1.4.g – The Secretary may conduct other tests as they may deem necessary to evaluate air pollution emissions other than those noted above. **[45CSR6 §7.2]**

Condition 13.1.4.h – Due to an unavoidable malfunction of equipment, emissions exceeding any limitation in this rule may be permitted by the Secretary for periods not to exceed five (5) days upon specific application to the Secretary. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Secretary provided a corrective program has been submitted by the owner or operator and approved by the Secretary. **[45CSR6 §8.2]**

Condition 13.1.5 – A pilot flame must be present at all times of operation of the Flare. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

Condition 13.1.7 – Flare shall be operated and designed in accordance with the information filed in permit application R13-2896F to achieve a VOC DRE of 98%

Condition 13.1.8 – The inlet flow rate of the Flare must be equal to or less than the maximum specified by the manufacturer.

Condition 13.1.9 – The permittee will comply with the requirements of Section 2.12 of this permit during emergency operation of the Flare

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 30-5.1.c.

To demonstrate compliance, presence or absence of a flare pilot flame shall be monitored

Method 22 Opacity testing shall be conducted within one year of permit issuance or initials startup, whichever is later

The Director may require a flare compliance assessment be conducted to demonstrate compliance

Maintain records of the times and duration of all periods in which the pilot flame was absent

Maintain a record of the flare design evaluation

Maintain records of the VE opacity testing conducted

Maintain records of the wet natural gas throughput through the dehydration system

Maintain monthly hours of operation records for the dehydration unit

Maintain records for a period of five years on site or an readily accessible off-site location

45 C.S.R. 13, Permit R13-2896F
Condition 13.2.1. – To demonstrate compliance with the requirements of 13.1.2, 13.1.3, and 13.1.4(a), the permittee shall monitor the aggregate throughput and heat input of waste gases sent to the flare on a monthly basis.

Condition 13.2.2. – To demonstrate compliance with the flame requirements of 13.1.5, the presence of a flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

Condition 13.2.3.a – To demonstrate compliance with the VE requirements of 45CSR6, the permittee shall conduct the following VE checks and/or opacity monitoring and recordkeeping for the unit

1. The VE check shall determine the presence or absence of VEs. The observations shall be conducted according to Section 11 of the EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, and the presence of uncombined water on the visibility of emissions. The observation period shall be a minimum of one (1) hour each calendar month during flaring operations;
2. As the ground flare is of smokeless design, any observation of VEs will indicate incorrect operation of the flare. Therefore, upon the observation of VEs, the permittee shall, at the next available safe opportunity, cease operation of the flare and attempt to correct the problem. After an attempt to correct the problem, the permittee shall then conduct a minimum of one (1) hour of VE observations according to 13.2.3(a) during flaring operations;
3. The permittee shall maintain records of all monitoring data required by 13.2.3. documenting the date and time of each VE check, the emission point or equipment/source ID number, the name or means of identification of the observer, the results of the check(s), whether the VEs are normal for the process, and if applicable, all corrective measure taken or planned. The permittee shall also record the general weather conditions during the VE check;
4. Any deviation(s) from the allowable VE requirement for any emissions discovered during observations using 40 CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the DAQ as soon as practicable but in any case with ten calendar days of the occurrence.

Condition 13.2.4 – For the purpose of demonstrating compliance with Sections 13.1.5 and 13.2.2, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.

Condition 13.2.5 – If permittee is required by the Director to demonstrate compliance with section 13.1.4(f) and 13.1.4(g), then the permittee shall submit a testing protocol at least 30 days prior to testing and shall submit a notification of the testing date at least 15 days prior to testing. The permittee shall submit the testing results within 60 days of testing and provide all supporting calculations and testing data.

Condition 13.2.6. – Any deviations from the flare design and operation criteria in section 13.1.7 and permit application R13-2896F, shall be reported in writing to the Director as soon as practicable but no later than 10 calendar days of discovery of such deviation.

Condition 13.2.7 – The permittee shall report to the Director, the time, cause of event, estimate of emissions and corrective actions taken when the unit was used for an emergency at the facility.

Are you in compliance with all applicable requirements for this emission unit? __✓_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Ethane Amine Regenerator

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S011	Ethane Amine Regenerator	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Ethane Amine Regenerator.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 129.0 mmscf/d

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
5.38 mmscf/hr	47,085 mmscf/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes _X_ No	**If yes, is it?** ___ Indirect Fired __ Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	1.98	8.67
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	1.82	7.99
N-Hexane	-	-
Benzene	-	-
Toluene	-	-
Other HAPs	-	-
Total HAPs	1.82	7.99
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ProMax 4.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 14.1.1 – The maximum sour ethane throughput to the unit shall not exceed 129 mmscf/d and 47,085 mmscf/yr (or alternatively 81,523 bbl/day and 29,755,895 bbl/yr of treated ethane). Compliance shall be determined using a 12 month rolling total.

Condition 14.1.2 – The unit shall be designed and operated in accordance with the following;

a. CO_2 will be removed from the ethane product in amine contacting system
b. The total ethane product shall be contacted with an amine solution in the amine contactor where the CO_2 in the ethane product is removed to less than 500 ppmw;
c. The rich amine from the contactor is regenerated in the amine regenerator where heat input is used to drive the CO2 and water overhead and vented to the atmosphere; and
d. The lean amine from the bottom of the regenerator is recycled back to the amine contactor.

Condition 14.1.3 – Off gas from the unit's flash tank shall be collected and sent to the ground flare (S004A) for combustion.

Condition 14.1.4 – Maximum methanol and VOC emissions from the unit shall not exceed 1.82 lbs/hr and 7.99 ton/yr and 1.98 lbs/hr and 8.67 ton/yr, respectively.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 14.2.1 – In order to show compliance with 14.1.1, the permittee shall either; (1) monitor and record the monthly and 12 month total throughput of sour ethane fed to the unit or (2) monitor and record the monthly and 12 month total throughput of total treated ethane from the unit.

Condition 14.2.3 – The permittee shall conduct, at a minimum of once per 12 month period, sampling of the inlet gas stream to the ethane amine units. The results of this test shall be used, with appropriate modeling techniques (such as use of ProMax software) to verify that the emissions of the unit are in compliance with those given under 14.1.4 and 14.1.5.

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Ethane Amine Regenerator

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C011 (VRU)
S054	Ethane Amine Regenerator	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Ethane Amine Regenerator.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 129.0 mmscf/d

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
5.38 mmscf/hr	47,085 mmscf/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes _X_ No	**If yes, is it?** ___ Indirect Fired __ Direct Fired
Maximum design heat input and/or maximum horsepower rating: NA	**Type and Btu/hr rating of burners:** NA

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	1.98	0.43
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	1.82	0.40
N-Hexane	-	-
Benzene	-	-
Toluene	-	-
Other HAPs	-	-
Total HAPs	1.82	0.40
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

ProMax 4.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 14.1.1 – The maximum sour ethane throughput to the unit shall not exceed 129 mmscf/d and 47,085 mmscf/yr (or alternatively 81,523 bbl/day and 29,755,895 bbl/yr of treated ethane). Compliance shall be determined using a 12 month rolling total.

Condition 14.1.2 – The unit shall be designed and operated in accordance with the following;

a. CO_2 will be removed from the ethane product in amine contacting system
b. The total ethane product shall be contacted with an amine solution in the amine contactor where the CO_2 in the ethane product is removed to less than 500 ppmw;
c. The rich amine from the contactor is regenerated in the amine regenerator where heat input is used to drive the CO2 and water overhead and vented to the atmosphere; and
d. The lean amine from the bottom of the regenerator is recycled back to the amine contactor.

Condition 14.1.3 – Off gas from the unit's flash tank shall be collected and sent to the ground flare (S004A) for combustion.

Condition 14.1.5 – The still vent emissions from the unit shall be, at a minimum of 95% of the time the unit is in operation, captured by the VRU (C006) and routed to the residue gas discharge line. During VRU downtime, emissions from the unit shall vent to the atmosphere. Maximum methanol and VOC emissions from the unit shall not exceed 1.82 lbs/hr and 0.40 ton/yr and 1.98 lbs/hr and 0.43 ton/yr, respectively

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 14.2.1 – In order to show compliance with 14.1.1, the permittee shall either; (1) monitor and record the monthly and 12 month total throughput of sour ethane fed to the unit or (2) monitor and record the monthly and 12 month total throughput of total treated ethane from the unit.

Condition 14.2.2 – The permittee shall monitor and record the monthly and 12 month total percentage of time the unit is operated when the VRU is not in operation.

Condition 14.2.3 – The permittee shall conduct, at a minimum of once per 12 month period, sampling of the inlet gas stream to the ethane amine units. The results of this test shall be used, with appropriate modeling techniques (such as use of ProMax software) to verify that the emissions of the unit are in compliance with those given under 14.1.4 and 14.1.5.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-906

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
TK-906	Slop Tank TK-906	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 21,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	248,712 gal/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	8.88	0.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.5 – The maximum annual throughput and VOC emissions for the specified tanks shall not exceed the following;

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-906	Slop Oil	248,712	0.05

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-907

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
TK-907	Produced Water Tank TK-907	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 63,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	754,824 gal/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	26.96	0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.5 – The maximum annual throughput and VOC emissions for the specified tanks shall not exceed the following;

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-907	Produced Water	754,824	0.14

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-2906

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
TK-2906	Slop Tank TK-2906	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 21,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	248,712 gal/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	8.88	0.05
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.5 – The maximum annual throughput and VOC emissions for the specified tanks shall not exceed the following;

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-2906	Slop Oil	248,712	0.05

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-2907

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
TK-2907	Produced Water Tank TK-2906	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 63,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	754,824 gal/yr	8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	26.96	0.14
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.5 – The maximum annual throughput and VOC emissions for the specified tanks shall not exceed the following;

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-2907	Produced Water	754,824	0.14

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Storage Tank TK-L-1

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
TK-L-1	Gasoline Dispensing Tank TK-L-1	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Aboveground storage tank

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2017	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 1,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
	12,000 gal/yr	8,760 hr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	15.71	0.13
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.5 – The maximum annual throughput and VOC emissions for the specified tanks shall not exceed the following;

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-L-1	Gasoline(1)	12,000	0.13

(1) This is purchased retail gasoline, not natural gasoline as produced on site

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Gasoline Dispensing Loading

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
L-1	Gasoline Dispensing Loading L-1	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Loading of Gasoline Dispenser; liquid transfer operation. Max fill rate of 1 gal/min.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2017	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 180 gal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes __ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Gasoline
180 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	0.18	<0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	-	-
N-Hexane	-	-
Benzene	-	-
Toluene	-	-
Xylene	-	-
Total HAPs	-	-
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.1 – The maximum design capacity of material loading/unloading and maximum emissions associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
L-1	Gasoline Dispenser	1	No	No	0.18	0.01

Condition 15.1.2 – The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 180 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.

Condition 15.1.3 – The main liquids loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutene, butanes, natural gasoline, or NGLs to truck or railcar and when loading propane to barge. Natural gasoline barge loading (S033) operations and Slop Oil/Produced water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.

Condition 15.1.4 – All truck loading of Slop/Oil and Produced Water shall be down using the submerged fill method. The "submerged fill method" shall, for the purposes of this permit, mean either bottom filling or filling by extending the pipe to near the bottom of the tank and as soon as practicable, below the level of liquid.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Product Loading – Closed Loop

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** Vapor Return to Tank.
S008	Product Loading – Closed Loop S008	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Liquids loading: Propane, Isobutane, Butane & Natural Gas Liquids (NGL), Natural Gasoline, Produced Water/Slop

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 35,000 gpm

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes __ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gasoline – 600 gpm (Truck) / 2000 gpm (Rail)
Propane – 3600 gpm (Truck) / 4000 gpm (Rail) / 4000 gpm (Barge)
Isobutane – 3600 gpm (Truck) / 4000 gpm (Rail)
Butanes – 3600 gpm (Truck) / 4000 gpm (Rail)
NGL – 3600 gpm (Truck) / 4000 gpm (Rail)

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	4.36	2.18
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol		
N-Hexane	6.68E-02	3.34E-02
Benzene	1.35E-02	6.76E-03
Toluene	1.38E-02	6.88E-03
Xylene	4.00E-03	2.00E-03
Ethylbenzene	7.79E-04	3.89E-04
Total HAPs	9.88E-02	4.94E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.1 – The maximum design capacity of material loading/unloading and maximum emissions associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
S08	Propane	3,600	4,000	4,000	4.36	2.18
	Isobutane			No		
	Butanes					
	NGL					
	Natural Gasoline	600	2000	NA		

Condition 15.1.2 – The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 180 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.

Condition 15.1.3 – The main liquids loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutene, butanes, natural gasoline, or NGLs to truck or railcar and when loading propane to barge. Natural gasoline barge loading (S033) operations and Slop Oil/Produced water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.

Condition 15.1.4 – All truck loading of Slop/Oil and Produced Water shall be down using the submerged fill method. The "submerged fill method" shall, for the purposes of this permit, mean either bottom filling or filling by extending the pipe to near the bottom of the tank and as soon as practicable, below the level of liquid.

_x_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Slop Water Truck Loading

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
S015	Slop Water Truck Loading S015	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Liquids loading: Produced Water/Slop Truck Loading

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 2,007,070 gal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes __ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Slop Oil/Produced Water
2,007,070 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	2.32	0.11
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	-	-
N-Hexane	-	-
Benzene	-	-
Toluene	-	-
Xylene	-	-
Total HAPs	-	-
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.1 – The maximum design capacity of material loading/unloading and maximum emissions associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
S015	Slop Oil/Produced Water	150	No	No	2.32	0.11

Condition 15.1.2 – The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 180 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.

Condition 15.1.3 – The main liquids loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutene, butanes, natural gasoline, or NGLs to truck or railcar and when loading propane to barge. Natural gasoline barge loading (S033) operations and Slop Oil/Produced water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.

Condition 15.1.4 – All truck loading of Slop/Oil and Produced Water shall be down using the submerged fill method. The "submerged fill method" shall, for the purposes of this permit, mean either bottom filling or filling by extending the pipe to near the bottom of the tank and as soon as practicable, below the level of liquid.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Barge Loading Vent

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
S033	Barge Loading Vent S033	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Liquids loading at Barge: Natural Gasoline.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2017	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 408,240,000 gal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes __ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural Gasoline
408,240,000 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	97.22	82.69
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	-	-
N-Hexane	-	-
Benzene	4.38E-01	3.72E-01
Toluene	7.29E-01	6.20E-01
Xylene	2.82E-01	2.40E-01
Total HAPs	1.45E+00	1.23E+00
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.1 – The maximum design capacity of material loading/unloading and maximum emissions associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
S033	Natural Gasoline	n/a	n/a	4000	97.22	82.69

Condition 15.1.2 – The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 180 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.

Condition 15.1.3 – The main liquids loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutene, butanes, natural gasoline, or NGLs to truck or railcar and when loading propane to barge. Natural gasoline barge loading (S033) operations and Slop Oil/Produced water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.

Condition 15.1.4 – All truck loading of Slop/Oil and Produced Water shall be down using the submerged fill method. The "submerged fill method" shall, for the purposes of this permit, mean either bottom filling or filling by extending the pipe to near the bottom of the tank and as soon as practicable, below the level of liquid.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Pressurized NGL/Condensate

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** None
S055	Pressurized NGL/Condensate S055	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Pressurized NGL/Condensate liquid transfer operation.

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2012	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 3,600 gpm.

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __Yes __ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Pressurized NGL / Condensate
3,600 gpm

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	-	-
Nitrogen Oxides (NO_X)	-	-
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	-	-
Particulate Matter (PM_{10})	-	-
Total Particulate Matter (TSP)	-	-
Sulfur Dioxide (SO_2)	-	-
Volatile Organic Compounds (VOC)	9.05	19.83
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Methanol	-	-
N-Hexane	4.64E-01	1.02E+00
Benzene	-	-
Toluene	-	-
Xylene	-	-
Total HAPs	4.64E-01	1.02E+00
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 13, Permit R13-2896F
Condition 15.1.1 – The maximum design capacity of material loading/unloading and maximum emissions associated emissions shall not exceed the following for the specific NGLs:

Emission Unit ID	Material Loaded/Unloaded	Truck (gpm)	Rail (gpm)	Barge (gpm)	VOC Emissions (lb/hr)	VOC Emissions (ton/yr)
S055	Pressurized NGL/Condensate (Unloading)	3600	n/a	No	9.05	19.83

Condition 15.1.2 – The maximum Slop Oil/Produced Water loaded into trucks (S015) and Gasoline Dispenser Loading (L-1) shall not exceed a maximum of 2,007,070 and 180 gallons per year, respectively. The maximum Natural Gasoline loaded into barges (S033) shall not exceed a maximum of 408,240,000 gallons per year.

Condition 15.1.3 – The main liquids loading area (S008, S033) shall employ vapor balance (closed system) to route all displaced vapors back to the tanks when loading propane, isobutene, butanes, natural gasoline, or NGLs to truck or railcar and when loading propane to barge. Natural gasoline barge loading (S033) operations and Slop Oil/Produced water (S015), and Gasoline Dispenser (L-1) truck loading operations are not required to use vapor balance.

Condition 15.1.4 – All truck loading of Slop/Oil and Produced Water shall be down using the submerged fill method. The "submerged fill method" shall, for the purposes of this permit, mean either bottom filling or filling by extending the pipe to near the bottom of the tank and as soon as practicable, below the level of liquid.

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, Permit R13-2896F
Condition 15.2.1 – To demonstrate compliance with Conditions 15.1.2. and 15.1.5, the permittee shall maintain a monthly record of the amount of liquids handled in the Liquids Loading and Unloading areas and in the specified storage tank

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Pigging Operations (Pigging Flare and Vent)

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** C034 Flare
S034, S035	Pigging Operations	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Pigging Operations including a waste gas combustion

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2017	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 72,000 scf/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 170.71 mmBtu/hr	**Type and Btu/hr rating of burners:** 170.71 mmBtu/hr

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Propane / Butane Gas
72,000 scf/hr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.25 gr/100 ft^3	N/A	2,371 BTU/ft^3

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	13.99	0.08
Nitrogen Oxides (NO_X)	24.25	0.15
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.31	0.01
Particulate Matter (PM_{10})	1.31	0.01
Total Particulate Matter (TSP)	1.31	0.01
Sulfur Dioxide (SO_2)	1.87	0.01
VOCs (Combustion)	227.77	1.37
VOCs (Waste Gas Combustion)	1,391.24	47.86
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Xylene	-	-
N-Hexane	-	-
Benzene	-	-
Toluene	-	-
Other HAPs	-	-
Total HAPs	-	-
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42 Section 1.5 – Liquefied Petroleum Gas Combustion

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 6
45 C.S.R. 6-4.1 – Particulate Matter Emission Limitation; The total allowable emission rate of PM for the unit shall be calculated using the following equation; Emissions (lb/hr) = F x Incinerator Capacity (tons/hr) where the F factor has a value of 5.43 for incinerators with capacity of greater than 15,000 lbs/hr. The PM Emission Limit for this unit will be 8.24 lb/hr [5.43 x IC (1.52) ton/hr = 8.24 lb/hr].

45 C.S.R. 6-4.3 – Opacity Limitations; No person shall cause or allow emission of smoke into atmosphere from the unit which is 20% opacity or higher.

45 C.S.R. 6-4.4 – Opacity Limitations during Startup; The provisions of subsection 4.3 shall not apply to smoke which is less than 40% opacity, for a period or periods aggregating no more than eight (8) minutes per start up.

45 C.S.R. 6-4.5 – Refuse/Ash; No person shall cause, allow or permit the emission of particles of unburned or partially burned refuse or ash from the flare which are large enough to be individually distinguished in the open air.

45 C.S.R. 6-4.6 – Objectionable Odors; Flare shall be designed, operated, and maintained so as to prevent the emission of objectionable odors

45 C.S.R. 30-12.7
Flare shall be steam-assisted, air-assisted, or non-assisted.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 63.11.

45 C.S.R. 13, Permit R13-2896F
Condition 16.1.1. – Permittee shall utilize a non-assisted flare for control of potential emissions during all times of propane pig trap operations. The flare will have a maximum design capacity of 72,000 scf/hr and be designed and operated to achieve a minimum propane DRE of 98%.

Condition 16.1.2. – The maximum annual combustion of waste gases in the pig trap flare shall not exceed 864,000 scf. The maximum number of pigging events per year for all pig traps shall not exceed the limits and volumes per event (scf) established in the permit application R13-2896F.

Condition 16.1.3. – Maximum combustion exhaust emissions (not including uncombusted pass through emissions of waste gases) from S034 shall not exceed the following;

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/yr)
NOx	24.25	0.15
CO	13.99	0.08
$PM_{2.5}/PM_{10}/PM$	1.31	0.01

Condition 16.1.4 – Based on the minimum VOC DRE of 98% as required under Condition 16.1.1., maximum emissions of uncombusted VOCs emitted at the Pigging Flare shall not exceed 227.77 lb/hr and 1.37 ton.yr of VOCs. The maximum emissions of VOCs and HAPs emitted from all other pigging operations with the exception of the propane pig trap shall not exceed 1,391.24 lb/hr and 47.86 ton/yr, and 15.9 lb/hr and 0.55 ton/yr, respectively.

Condition 16.1.5 – The Pigging Flare shall be designed and operated in accordance with 40 CFR 60, Section 60.18.

Condition 16.1.6 – The Pigging Flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to those

given under Condition 13.1.4.

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 30-5.1.c.

To demonstrate compliance, presence or absence of a flare pilot flame shall be monitored continuously and recorded

Method 22 Opacity testing shall be conducted within one year of permit issuance or initials startup, whichever is later

Maintain records of the times and duration of all periods in which the pilot flame was absent

Maintain a record of the flare design evaluation

Maintain records for a period of five years on site or an readily accessible off-site location

45 C.S.R. 13, Permit R13-2896F
Condition 16.2.1. – In order to show compliance with Condition 16.1.2., the permittee shall calculate, based on the information collected under 16.2.2, the throughput (in scf) of waste gases fed to S034 on a monthly and a rolling 12 month basis..

Condition 16.2.2. – In order to show compliance with 16.1.2, the permittee shall monitor and record the total number and type of pigging events and the estimated volume per event (in scf) on a monthly and rolling 12 month total for all pig traps.

Condition 13.2.3.a – To demonstrate compliance with the VE requirements of 45CSR6, the permittee shall conduct the following VE checks and/or opacity monitoring and recordkeeping for the unit

1. The VE check shall determine the presence or absence of VEs. The observations shall be conducted according to Section 11 of the EPA Method 22. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, and the presence of uncombined water on the visibility of emissions. The observation period shall be a minimum of one (1) hour at initial commissioning and at least one (1) hour thereafter each calendar year during a pig trap flaring operation;
2. As the unit is of smokeless design, any observation of VEs will indicate incorrect operation of the flare. Therefore, upon the observation of VEs, the permittee shall, at the next available safe opportunity, cease operation of the flare and attempt to correct the problem. After an attempt to correct the problem, the permittee shall then conduct a minimum of one (1) hour of VE observations according to 16.2.3(a)(1) during the next pig trap flaring operations; and
3. The permittee shall maintain records of all monitoring data required by 16.2.3. documenting the date and time of each VE check, the emission point or equipment/source ID number, the name or means of identification of the observer, the results of the check(s), whether the VEs are normal for the process, and if applicable, all corrective measure taken or planned. The permittee shall also record the general weather conditions during the VE check;

Are you in compliance with all applicable requirements for this emission unit? _✓__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 1

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 1	FUG AREA 1	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 1 is comprised of Cryo 1 excluding Demethanizer 1 and Cryo 2

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/2018

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	16.03	70.21
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	8.70E-04	3.81E-03
Toluene	1.21E-03	5.32E-03
Xylene	4.30E-04	1.89E-03
n-Hexane	4.37E-02	1.92E-01
Total HAPs	4.63E-02	2.03E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart KKK
40 C.F.R. § 60.630(b) – Applicability

40 C.F.R. § 60.632 – Standards

40 C.F.R. § 60.633 – Exceptions

40 C.F.R. § 60.635 – Recordkeeping

40 C.F.R. § 60.636 – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.1 – The permittee shall operate FUG AREA 1 (currently Cryo 1 (excluding Demethanizer 1) and Cryo 2) in accordance with all applicable requirements given under 40 CFR 60 Subpart KKK.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart KKK. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.1 and shall be considered enforceable until such time as the permit is appropriately revised.

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart KKK
40 C.F.R. § 60.632(a) – Each owner or operator subject to the provisions of this subpart shall comply with the requirements of §§60.482-1 (a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in §60.633, as soon as practicable, but no later than 180 days after initial startup

40 C.F.R. § 60.633(a) – Each owner or operator subject to the provisions of this subpart may comply with the following exceptions to the provisions of subpart VV.

40 C.F.R. § 60.633(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485(b) except as provided in §§60.632(c), paragraph (b)(4) of this section, and 60.482-4 (a) through (c) of subpart VV.

40 C.F.R. § 60.633(b)(2) – If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.633(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9.

40 C.F.R. § 60.633(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.633(g) – Flares used to comply with this subpart shall comply with the requirements of §60.18.

40 C.F.R. § 60.635(a) – Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.486.

40 C.F.R. § 60.635(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.633(b)(1) of this subpart.

1. When each leak is detected as specified in §60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
   - i. The instrument and operator identification numbers and the equipment identification number.
   - ii. The date the leak was detected and the dates of each attempt to repair the leak.
   - iii. Repair methods applied in each attempt to repair the leak.
   - iv. "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 10,000 ppm or greater.
   - v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
   - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
   - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
   - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
   - ix. The date of successful repair of the leak.
   - x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4(a). The designation of equipment subject to the provisions of §60.482-4(a) shall be signed by the owner or operator.

40 C.F.R. § 60.636(a) – Each owner or operator subject to the provisions of this subpart shall comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487.

40 C.F.R. § 60.636(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.633(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4(a) and those pressure relief devices complying with §60.482-4(c).

40 C.F.R. § 60.636(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.633(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.633(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 2

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 2	FUG AREA 2	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 2 is comprised of Demethanizer 1 and Frac 2

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2014	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	7.92	34.70
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	4.40E-04	1.93E-03
Toluene	6.14E-04	2.69E-03
Xylene	2.18E-04	9.54E-04
n-Hexane	2.21E-02	9.69E-02
Total HAPs	2.34E-02	1.03E-01
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOO
40 C.F.R. § 60.5365 – Applicability

40 C.F.R. § 60.5400 – Standards

40 C.F.R. § 60.5401 – Exceptions

40 C.F.R. § 60.5420 – Recordkeeping

40 C.F.R. § 60.5421 – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.2 – The permittee shall operate FUG AREA 2 and FUG AREA 3 (currently Demethanizer 1, Frac 2 and Cryo 3) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOO.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOO. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.2 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOO
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401.

40 C.F.R. § 60.5401(a) – You may comply with the following exceptions to the provisions of §60.5400(a) and (b).

40 C.F.R. § 60.5401(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
    i. The instrument and operator identification numbers and the equipment identification number.
    ii. The date the leak was detected and the dates of each attempt to repair the leak.
    iii. Repair methods applied in each attempt to repair the leak.
    iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.
    v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
    vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
    viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
    ix. The date of successful repair of the leak.
    x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(I through (iv) and (c)(2)(vii) through (viii)

40 C.F.R. § 60.5422(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 3

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 3	FUG AREA 3	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 3 is comprised of Cryo 3

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2018	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.10	13.56
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	1.84E-04	8.07E-04
Toluene	2.57E-04	1.13E-03
Xylene	9.12E-05	3.99E-04
n-Hexane	9.26E-03	4.06E-02
Total HAPs	9.79E-03	4.29E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOO
40 C.F.R. § 60.5365 – Applicability

40 C.F.R. § 60.5400 – Standards

40 C.F.R. § 60.5401 – Exceptions

40 C.F.R. § 60.5420 – Recordkeeping

40 C.F.R. § 60.5421 – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.2 – The permittee shall operate FUG AREA 2 and FUG AREA 3 (currently Demethanizer 1, Frac 2 and Cryo 3) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOO.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOO. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.2 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOO
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401.

40 C.F.R. § 60.5401(a) – You may comply with the following exceptions to the provisions of §60.5400(a) and (b).

40 C.F.R. § 60.5401(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
    i. The instrument and operator identification numbers and the equipment identification number.
    ii. The date the leak was detected and the dates of each attempt to repair the leak.
    iii. Repair methods applied in each attempt to repair the leak.
    iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in paragraph (a) of this section after each repair attempt is 500 ppm or greater.
    v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
    vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
    viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
    ix. The date of successful repair of the leak.
    x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(I through (iv) and (c)(2)(vii) through (viii)

40 C.F.R. § 60.5422(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 4

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 4	FUG AREA 4	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 4 is comprised of Cryo 4 and Frac 1

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2019 – Cryo 4	5/24/2018 – Frac 1

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.91	17.12
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	2.91E-04	1.28E-03
Toluene	4.07E-04	1.78E-03
Xylene	1.44E-04	6.32E-04
n-Hexane	1.46E-02	6.41E-02
Total HAPs	1.55E-02	6.78E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5365a – Applicability

40 C.F.R. § 60.5400a – Standards

40 C.F.R. § 60.5401a – Exceptions

40 C.F.R. § 60.5420a – Recordkeeping

40 C.F.R. § 60.5421a – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.3 – The permittee shall operate FUG AREAS 4 – 7 (currently Frac 1 and Cryo 4 through 7) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOOa.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOOa. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.3 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401a.

40 C.F.R. § 60.5401a(a) – You may comply with the following exceptions to the provisions of §60.5400a(a) and (b).

40 C.F.R. § 60.5401a(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400a(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401a(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401a(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401a(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401a(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401a(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421a(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421a(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401a(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401a(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401a(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
    i. The instrument and operator identification numbers and the equipment identification number.
    ii. The date the leak was detected and the dates of each attempt to repair the leak.
    iii. Repair methods applied in each attempt to repair the leak.
    iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in §60.5400a(d) after each repair attempt is 500 ppm or greater.
    v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
    vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
    viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
    ix. The date of successful repair of the leak.
    x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422a(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(i) through (iv) and (c)(2)(vii) through (viii). You must submit semiannual reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 days, you must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

40 C.F.R. § 60.5422a(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422a(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401a(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401a(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 5

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 5	FUG AREA 5	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 5 is comprised of Cryo 5

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.10	13.56
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	1.84E-04	8.07E-04
Toluene	2.57E-04	1.13E-03
Xylene	9.12E-05	3.99E-04
n-Hexane	9.26E-03	4.06E-02
Total HAPs	9.79E-03	4.29E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5365a – Applicability

40 C.F.R. § 60.5400a – Standards

40 C.F.R. § 60.5401a – Exceptions

40 C.F.R. § 60.5420a – Recordkeeping

40 C.F.R. § 60.5421a – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.3 – The permittee shall operate FUG AREAS 4 – 7 (currently Frac 1 and Cryo 4 through 7) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOOa.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOOa. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.3 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401a.

40 C.F.R. § 60.5401a(a) – You may comply with the following exceptions to the provisions of §60.5400a(a) and (b).

40 C.F.R. § 60.5401a(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400a(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401a(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401a(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401a(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401a(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401a(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421a(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421a(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401a(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401a(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401a(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
   - i. The instrument and operator identification numbers and the equipment identification number.
   - ii. The date the leak was detected and the dates of each attempt to repair the leak.
   - iii. Repair methods applied in each attempt to repair the leak.
   - iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in §60.5400a(d) after each repair attempt is 500 ppm or greater.
   - v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
   - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
   - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
   - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
   - ix. The date of successful repair of the leak.
   - x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422a(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(i) through (iv) and (c)(2)(vii) through (viii). You must submit semiannual reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 days, you must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

40 C.F.R. § 60.5422a(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422a(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401a(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401a(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 6

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 6	FUG AREA 6	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 6 is comprised of Cryo 6

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.10	13.56
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	1.84E-04	8.07E-04
Toluene	2.57E-04	1.13E-03
Xylene	9.12E-05	3.99E-04
n-Hexane	9.26E-03	4.06E-02
Total HAPs	9.79E-03	4.29E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5365a – Applicability

40 C.F.R. § 60.5400a – Standards

40 C.F.R. § 60.5401a – Exceptions

40 C.F.R. § 60.5420a – Recordkeeping

40 C.F.R. § 60.5421a – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.3 – The permittee shall operate FUG AREAS 4 – 7 (currently Frac 1 and Cryo 4 through 7) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOOa.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOOa. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.3 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401a.

40 C.F.R. § 60.5401a(a) – You may comply with the following exceptions to the provisions of §60.5400a(a) and (b).

40 C.F.R. § 60.5401a(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400a(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401a(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401a(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401a(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401a(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401a(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421a(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421a(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401a(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401a(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401a(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
    i. The instrument and operator identification numbers and the equipment identification number.
    ii. The date the leak was detected and the dates of each attempt to repair the leak.
    iii. Repair methods applied in each attempt to repair the leak.
    iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in §60.5400a(d) after each repair attempt is 500 ppm or greater.
    v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
    vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
    vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
    viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
    ix. The date of successful repair of the leak.
    x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422a(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(i) through (iv) and (c)(2)(vii) through (viii). You must submit semiannual reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 days, you must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

40 C.F.R. § 60.5422a(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422a(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401a(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401a(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Fugitive Area 7

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
FUG AREA 7	FUG AREA 7	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive Area 7 is comprised of Cryo 7

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	2019	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.10	13.56
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	1.84E-04	8.07E-04
Toluene	2.57E-04	1.13E-03
Xylene	9.12E-05	3.99E-04
n-Hexane	9.26E-03	4.06E-02
Total HAPs	9.79E-03	4.29E-02
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5365a – Applicability

40 C.F.R. § 60.5400a – Standards

40 C.F.R. § 60.5401a – Exceptions

40 C.F.R. § 60.5420a – Recordkeeping

40 C.F.R. § 60.5421a – Reporting

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.3 – The permittee shall operate FUG AREAS 4 – 7 (currently Frac 1 and Cryo 4 through 7) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOOa.

45 C.S.R. 13, Permit R13-2896F
Condition 17.1.4 – The permittee shall maintain on-site and available upon request an updated list of logical groupings of plant components and the correct applicability of each group to 40 CFR 60 Subpart OOOOa. This updated and revised list shall be submitted to the Director within 30 days of any applicability change. This list shall supersede the requirements given under Condition 17.1.3 and shall be considered enforceable until such time as the permit is appropriately revised. .

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

40 C.F.R. 60 Subpart OOOOa
40 C.F.R. § 60.5400(a) – You must comply with the requirements of §§60.482-1a(a), (b), and (d) and 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in §60.5401a.

40 C.F.R. § 60.5401a(a) – You may comply with the following exceptions to the provisions of §60.5400a(a) and (b).

40 C.F.R. § 60.5401a(b)(1) – Each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in §60.485a(b) except as provided in §60.5400a(c), paragraph (b)(4) of this section, and 60.482-4a(a) through (c) of subpart VVa.

40 C.F.R. § 60.65401a(b)(2) – If an instrument reading of 500 ppm or greater is measured, a leak is detected.

40 C.F.R. § 60.5401a(b)(3)(i) – When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §60.482-9a.

40 C.F.R. § 60.5401a(b)(3)(ii) – A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

40 C.F.R. § 60.5401a(b)(4)(i) – Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in paragraph (b)(1) of this section and §60.482-4a(b)(1) of subpart VVa.

40 C.F.R. § 60.5401a(b)(4)(ii) – No pressure relief device described in paragraph (b)(4)(i) of this section shall be allowed to operate for more than 30 days after a pressure release without monitoring

40 C.F.R. § 60.5421a(a) – You must comply with the requirements of paragraph (b) of this section in addition to the requirements of §60.486a.

40 C.F.R. § 60.5421a(b) – The following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of §60.5401a(b)(1) of this subpart.

1. When each leak is detected as specified in §60.5401a(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.
2. When each leak is detected as specified in §60.5401a(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
   - i. The instrument and operator identification numbers and the equipment identification number.
   - ii. The date the leak was detected and the dates of each attempt to repair the leak.
   - iii. Repair methods applied in each attempt to repair the leak.
   - iv. "Above 500 ppm" if the maximum instrument reading measured by the methods specified in §60.5400a(d) after each repair attempt is 500 ppm or greater.
   - v. "Repair delayed" the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
   - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
   - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
   - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
   - ix. The date of successful repair of the leak.
   - x. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §60.482-4a(a). The designation of equipment subject to the provisions of §60.482-4a(a) shall be signed by the owner or operator.

40 C.F.R. § 60.5422a(a) – You must comply with the requirements of paragraphs (b) and (c) of this section in addition to the requirements of §60.487a(a), (b). (c)(2)(i) through (iv) and (c)(2)(vii) through (viii). You must submit semiannual reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) Use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in §60.4. Once the form has been available in CEDRI for at least 90 days, you must begin submitting all subsequent reports via CEDRI. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

40 C.F.R. § 60.5422a(b) – An owner or operator shall include the following information in the initial semiannual report in addition to the information required in §60.487a(b) (1)-(4): Number of pressure relief devices subject to the requirements of §60.5401a(b) except for those pressure relief devices designated for no detectable emissions under the provisions of §60.482-4a(a) and those pressure relief devices complying with §60.482-4a(c).

40 C.F.R. § 60.5422a(c) – An owner or operator shall include the following information in all semiannual reports in addition to the information required in §60.487a(c)(2) (i) through (vi):

1. Number of pressure relief devices for which leaks were detected as required in §60.5401a(b)(2); and
2. Number of pressure relief devices for which leaks were not repaired as required in §60.5401a(b)(3).

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Unpaved Roads

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:** N/A
S010	Unpaved Roads	

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Unpaved Roads

Manufacturer:	**Model number:**	**Serial number:**

Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/YYYY	MM/DD/2011	MM/DD/

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
		8,760

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		1.17
Particulate Matter (PM_{10})		11.69
Total Particulate Matter (TSP)		43.86
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

45 C.S.R. 17

45 CSR§17-3.1. – No person shall cause, suffer, allow or permit fugitive PM to be discharged beyond the boundary lines of the property on which the discharge originates or ay any public or residential location, which causes or contributes to statutory air pollution

_X_ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 17

45 CSR§17-3.2. – When a person is found in violation of this rule, the Director may require the person to utilize a system to minimize fugitive PM. This system to minimize fugitive PM may include, but is not limited to, the following;

a. Use, where practicable, of water or chemicals for control of PM in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;
b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne PM;
c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or
d. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of materials, including adequate containment methods during sandblasting, abrasive cleaning or other similar operations.

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT F

SCHEDULE OF COMPLIANCE FORM (NOT APPLICABLE)

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

ATTACHMENT G

AIR POLLUTION CONTROL DEVICE FORM

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C004A	**List all emission units associated with this control device.** S004A – Ground Flare	
Manufacturer: Callidus	**Model number:** CAL-MP	**Installation date:** 2015

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_X_ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Flare controls emissions from glycol dehydrators at 95%; See Appendix A for pollutants controlled.		
VOC	100%	98%
HAPs	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Design Capacity – 22,500 mmBtu/hr
Maximum Flow Rate – 19,800,000 scf/hr / 173,448 mmscf/yr

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes X No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

This control device does not meet the "Basis of CAM Submittal" criteria listed within Attachment H.

Initial applications have to submit CAM for large PSEUs only. Due to having emissions below major source thresholds this control device is not associated with a large PSEU.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

The pilot light shall be continuously monitored and recorded.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 60.18.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C009	**List all emission units associated with this control device.** S032 – Glycol Dehydrator Still Vent V003 – Vapor Combustor (Note: Should be SV003 since V003 is em.pt)	
Manufacturer: TCI USA	**Model number:** Model 500	**Installation date:** 2018

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_X_ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Flare controls emissions from glycol dehydrators at 95%; See Appendix A for pollutants controlled.		
VOC	100%	98%
HAPs	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Design Capacity – 5.59 mmBtu/hr
Maximum Flow Rate – 3,438 scf/hr / 30.12 mmscf/yr

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

This unit is subject to 40 CFR 63 Subpart HH but also does not meet the "Basis of CAM Submittal" criteria listed within Attachment H. Initial Applications only have to submit CAM for large PSEUs. Due to having emissions below major source thresholds this control device is not associated with a large PSEU.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

The pilot light shall be continuously monitored and recorded.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 40CFR§63.11.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C034	**List all emission units associated with this control device.** S034 – Flare (Pigging)	
Manufacturer:	**Model number:**	**Installation date:** 2017

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	_X_ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Flare controls emissions from glycol dehydrators at 95%; See Appendix A for pollutants controlled.		
VOC	100%	98%
HAPs	100%	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Design Capacity – 170.71 mmBtu/hr
Maximum Flow Rate – 72,000 scf/hr / 864,000 scf/yr

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes X No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

This control device does not meet the "Basis of CAM Submittal" criteria listed within Attachment H.

Initial applications have to submit CAM for large PSEUs only. Due to having emissions below major source thresholds this control device is not associated with a large PSEU.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Flare shall be designed and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Flare shall be operated with a flame present at all times except during SSM.

The pilot flame shall be continuously monitored and recorded.

Flare shall be designed to meet the Btu and exit velocity requirements in accordance with 60.18.

ATTACHMENT H

COMPLIANCE ASSURANCE MONITORING FORM (NOT APPLICABLE)

Title V Operating Permit Application

Natrium Extraction and Fractionation Processing Plant (NPP), Facility ID No. 051-00142
Proctor, West Virginia

Blue Racer Midstream, LLC
14786 Energy Road
Proctor, West Virginia

April 2018