West Virginia Department of Environmental Protection
Austin Caperton
Cabinet Secretary

Permit to Modify

R13-2896F

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Blue Racer Midstream, LLC
Natrium Extraction and Fractionation Processing Plant (NPP)
051-00142

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Laura M. Crowder
Acting Director, Division of Air Quality

Issued: DRAFT

This permit will supercede and replace Permit R13-2896E issued on January 19, 2016.

Facility Location:	Proctor, Marshall County, West Virginia
Mailing Address:	5949 Sherry Lane, Suite 1300, Dallas, TX 75225
Facility Description:	Natural Gas Extraction/Fractionation Facility
SIC/NAICS Codes:	1321/211130
UTM Coordinates:	512.1 km Easting • 4,400.8 km Northing • Zone 17
Latitude/Longitude:	39.75969/-80.86172
Permit Type:	Modification
Description of Change:	Modification to primarily remove equipment/processes from the permit that were never constructed, to revise/clarify the configuration and emissions of existing equipment, and, most substantively, to add four (4) additional cryogenic processing plants and associated support equipment that will raise plant capacity to a maximum of 1,725 mmscf/day.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is a major source subject to 45CSR30. The Title V (45CSR30) application is due within twelve (12) months after the commencement date of the operation of Cryogenic Plant Number 3.

Table of Contents

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
Heaters					
S001	P001	Hot Oil Heater	2014	216.7 MMBtu/hr	None
S012	P012	Regenerative Gas Heater	2013	9.7 MMBTU/hr	None
S013	P013	Cryogenic Hot Medium Oil (HMO) Heater	2013	26.3 MMBtu/hr	None
S016	P016	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S017	P017	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S018	P018	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S019	P019	Hot Oil Heater	2014	61.58 MMBtu/hr	None
S024	P024	Regeneration Gas Heater	2018	9.7 MMBtu/hr	None
S026	P026	Cryogenic HMO Heater	2018	26.3 MMBtu/hr	None
S036	P036	Regenerative Gas Heater	2019	9.7 MMBTU/hr	None
S037	P037	Cryogenic HMO Heater	2019	26.3 MMBtu/hr	None
S040	P040	Regenerative Gas Heater	2019	19.28 MMBTU/hr	None
S041	P041	Cryogenic HMO Heater	2019	54.67 MMBTU/hr	None
S044	P044	Regenerative Gas Heater	2019	9.7 MMBTU/hr	None
S045	P045	Cryogenic HMO Heater	2019	26.3 MMBtu/hr	None
S048	P048	Regenerative Gas Heater	2019	9.7 MMBTU/hr	None
S049	P049	Cryogenic HMO Heater	2019	26.3 MMBtu/hr	None
S052	P052	Hot Oil Heater	2019	61.58 MMBtu/hr	None
S053	P053	Hot Oil Heater	2019	61.58 MMBtu/hr	None
S056	P056	Stabilizer Heater	2019	10.09 MMBtu/hr	None
Glycol Dehydration Units					
S006	P001(1)	Glycol Dehydration System	2011	460 MMscfd	C001(1)
		Glycol Dehydration Flash Tank			
S032	P032(1)	Glycol Dehydration System	2018	230 MMscfd	C009(1)
		Glycol Dehydration Flash Tank			
S029	P029	Glycol Reboiler	2018	3.0 MMBtu/hr	None
Storage Tanks(2)					
TK-802	P001	Natural Gasoline Storage Tank	2011	714,000 gal	Natural Gas Blanket(3)
TK-2802	P001	Natural Gasoline Storage Tank	2014	1,260,000 gal	Natural Gas Blanket(3)
TK-3802	P001	Natural Gasoline Storage Tank	2019	714,000 gal	Natural Gas Blanket(3)

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
TK-4802	P001	Natural Gasoline Storage Tank	2019	1,260,000 gal	Natural Gas Blanket(3)
TK-5802	P001	Natural Gasoline Storage Tank	2019	714,000 gal	Natural Gas Blanket(3)
TK-6802	P001	Natural Gasoline Storage Tank	2019	1,260,000 gal	Natural Gas Blanket(3)
TK-7802	TK-7802	Refrigerated Propane Storage Tank	2019	4,200,000 gal	VRU
US-800	Flare(4)	Spherical NGL Storage Tank	2011	2,142,000 gal	Pressure Tank
US-801	Flare(4)	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-804	Flare(4)	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-805	Flare(4)	Spherical NGL Storage Tank	2011	865,200 gal	Pressure Tank
US-2800	Flare(4)	Spherical NGL Storage Tank	2019	2,142,000 gal	Pressure Tank
US-2801	Flare(4)	Spherical NGL Storage Tank	2019	865,200 gal	Pressure Tank
US-2804	Flare(4)	Spherical NGL Storage Tank	2019	865,200 gal	Pressure Tank
US-2805	Flare(4)	Spherical NGL Storage Tank	2019	865,200 gal	Pressure Tank
n/a	n/a	Four (4) Pressurized NGL Bullet Tanks (V-1905, V-1915, V-1925, V-1935)	2014	90,000 gal (each)	Pressure Tank
n/a	n/a	Four (4) Pressurized NGL Bullet Tanks (V-2905, V-2915, V-2925, V-2935)	2019	90,000 gal (each)	Pressure Tank
TK-906	TK-906	Slop Tank	2011	21,000 gal	None
TK-2906	TK-2906	Slop Tank	2019	21,000 gal	None
TK-907	TK-907	Produced Water Tank	2012	63,000 gal	None
TK-2907	TK-2907	Produced Water Tank	2019	63,000 gal	None
Other Emission Units					
S011	P005	Ethane Amine Regenerator	2012	129 mmscfd	None
S054	P054	Ethane Amine Regenerator	2019	129 mmscfd	C011
S008	P008	Product Loading (Truck, Rail, Propane Barge)	2011	3,600 gpm (truck) 4,000 gpm (rail) 4,000 gpm (barge)	VRU
S015	S015	Slop Water Truck Loading	2011	150 gpm	None
S033	P033	Natural Gasoline Loading (Barge)	2017	4,000 gpm	None
S055	P055	Pressurized NGL/Condensate Unloading	2012	3,600 gpm	None
L-1	L-1	Gasoline Dispenser Loading	2017	1 gpm	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device
S002	P002	Caterpillar Model C18 Fire Pump #1 (Manufactured 2011)	2012	700 HP	None
S003	P003	Caterpillar Model C18 Fire Pump #2 (Manufactured 2011)	2012	700 HP	None
S057	P057	Natural Gas, 4-Stroke Lean Burn Emergency Generators(5) (Manufactured after June 12, 2006)	2019	16,000 HP(5)	None
S034	P034	Propane Pigging (including Flare)	2017	n/a	Flare (C034)
S035	P035	Pigging Operations	2017	n/a	None
Fugitive Emissions Sources					
FUG AREA 1	n/a	Fugitive Area 1	2011	n/a	None
FUG AREA 2	n/a	Fugitive Area 2	2011	n/a	None
FUG AREA 3	n/a	Fugitive Area 3	2018	n/a	None
FUG AREA 4	n/a	Fugitive Area 4	2019	n/a	None
FUG AREA 5	n/a	Fugitive Area 5	2019	n/a	None
FUG AREA 6	n/a	Fugitive Area 6	2019	n/a	None
FUG AREA 7	n/a	Fugitive Area 7	2019	n/a	None
S010	n/a	Unpaved Roads	2011	n/a	None
Control Devices					
S004A	P004A	Callidus CAL-MP Staged, Multi-Point Ground Flare System (C004A)	2015	19,800,000 scf/hr	n/a
V003	V003	Vapor Combustor (C009)	2015	3,380 scf/hr	n/a
S034	P034	Propane Pig Trap Flare (C034)	2017	72,000 scf/hr	n/a

(1) Still Vent and flash tank vapors from S006 will be routed to the Hot Oil Heater (S001: C001) and used as fuel. Still Vent and flash tank vapors from S032 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.

(2) Other storage tanks that are not listed here (see Table N-3 in permit application R13-2896F) but meet the *de minimis* requirements under 45CSR13 (*Storage vessels having less than 10,567 gallons capacity containing petroleum or organic liquids with a vapor pressure of 1.5 psia or less at storage temperature, provided that the emissions from all such organic liquid storage tanks, in the aggregate, are less than 2 tons per year for hazardous air pollutants or VOCs*) are authorized at the facility.

(3) Tank uses a natural gas blanket to prevent emissions of natural gasoline. Working/breathing losses of natural gas blanket are collected and sent to Hot Oil Heater (S001) as a supplemental fuel.

(4) This tank shall be pressurized in excess of 204.9 kPa (which exempts the tank from applicability to 40 CFR 60, Subpart Kb) and normally has no emissions. In the case of emergency, emissions from the tank can be flared in C004A.

(5) The permittee has the option of constructing one or more emergency generators of the type listed with an aggregate horsepower not to exceed 16,000.

1.1. Control Devices

Control Device ID	Emission Unit	Pollutant	Control Device	Control Efficiency
C004	Maintenance, Blowdowns, Pressure Relief Valves	VOCs	Flare (S004A)	98.0 %
		Total HAPs		98.0 %
C034	Pigging Flare (S034)	VOCs	Pigging Flare (S034)	98.0%
C009	Glycol Dehydration Flash Tank/Still Vents (S032)	VOCs	Vapor Combustor (V003)	98.0 %
		Total HAPs		98.0 %

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_X**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 μm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**PM_{10}**	Particulate Matter less than 10μm in diameter
C.S.R. *or* CSR	Codes of State Rules		
DAQ	Division of Air Quality	**Ppb**	Pounds per Batch
DEP	Department of Environmental Protection	**Pph**	Pounds per Hour
		Ppm	Parts per Million
dscm	Dry Standard Cubic Meter	**Ppm_V or ppmv**	Parts per Million by Volume
FOIA	Freedom of Information Act		
HAP	Hazardous Air Pollutant	**PSD**	Prevention of Significant Deterioration
HON	Hazardous Organic NESHAP		
HP	Horsepower	**Psi**	Pounds per Square Inch
lbs/hr	Pounds per Hour	**SIC**	Standard Industrial Classification
LDAR	Leak Detection and Repair		
M	Thousand	**SIP**	State Implementation Plan
MACT	Maximum Achievable Control Technology	**SO_2**	Sulfur Dioxide
		TAP	Toxic Air Pollutant
MDHI	Maximum Design Heat Input	**TPY**	Tons per Year
MM	Million	**TRS**	Total Reduced Sulfur
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour		
		UTM	Universal Transverse Mercator
NA	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
		VOL	Volatile Organic Liquids
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-2896E. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2896 through R13-2896F, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.10 and 10.3.]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] ***[State Enforceable Only]***

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method.

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly

authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all 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. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings

for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

[1] For all self-monitoring reports, stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. **Operating Fee.** In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.10.]

4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment 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.

4.1.5. **Maximum Throughput Limitation.** The total maximum combined wet natural gas throughput of the gas processing plant, as processed in a maximum of seven (7) Cryogenic Plants, shall not exceed 1,725 mmscf/day. To demonstrate compliance, the permittee shall maintain records of the amount of natural gas processed in the gas processing plant.

5.0. Source-Specific Requirements (Hot Oil Heaters: S001, S016-S019, S052-S053)

5.1. Limitations and Standards

5.1.1. The MDHI of the Hot Oil Heater designated as S001 shall not exceed 216.7 MMBTU/hr and, for each Hot Oil Heater designated as S016-S019 and S052-S053, shall not exceed 61.58 MMBTU/hr. All Hot Oil Heaters (S001, S016-S019, S052-S053) shall be equipped with Low-NO_x burners.

5.1.2. Maximum emissions from the Hot Oil Heaters shall not exceed the following:

a. The maximum emissions from S001 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S001	Nitrogen Oxides	9.75	42.71
	Carbon Monoxide	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.

b. The maximum emissions from each heater S016-S019 and S052-S053 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S016-S019, S052-S053	Nitrogen Oxides	1.48	6.47
	Carbon Monoxide	3.63	15.91
	SO_2	0.04	0.19
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.46	2.01
	VOCs	0.33	1.45

(1) Includes Condensables.

5.1.3. The quantity of natural gas that shall be consumed in the 216.7 MMBTU/hr Hot Oil Heater (S001) shall not exceed 225,571 standard cubic feet per hour and 1976 x 10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in each 61.58 MMBTU/hr Hot Oil Heaters (S016-S019 and S052-S053) shall not exceed 64,101 standard cubic feet per hour and 562 x 10^6 standard cubic feet per year.

5.1.4. **45CSR2**
Each Hot Oil Heater is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under (a) through (c):

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

b. The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

(1) The product of 0.09 and the total design heat input for the fuel burning units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than twelve hundred (1200) pounds per hour of particulate matter shall be discharged into the open air.
[45CSR§2-4.1(a)]

c. The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1.]

5.1.5. **40 CFR 60, Subpart Db**
Hot Oil Heater S001 is subject to the applicable limitations and standards under 40 CFR 60, Subpart Db, including the requirements as given below under (a) through (c):

a. Units firing only very low sulfur oil, 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)]

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 that affected facility any gases that contain NO_X (expressed as NO_2) in excess of the following emission limits:
[40CFR§60.44b(a)]

(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)]**

c. Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO_X standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.
[40CFR§60.48b(b)]

(1) Install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system.
[40CFR§60.48b(b)(1)]

d. Pursuant to §60.49b(r)(2)(iv), the WVDAQ approves quarterly fuel sampling for S001.

5.1.6. **40 CFR 60, Subpart Dc**
Hot Oil Heaters S016-S019 and S052-S053 are 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. Recordkeeping and reporting requirements shall be conducted in accordance with §60.48c. These reports shall be submitted in accordance with the time lines and in the order set forth in §60.48c and submitted to the addresses listed in Section 3.5.3.

5.2. Monitoring Requirements

5.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 5.1.4 of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

5.3. Testing Requirements

5.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established under 5.1.2(a) and (b).

5.4. Recordkeeping Requirements

5.4.1. To demonstrate continuous compliance with sections 5.1.1-5.1.3, the permittee shall monitor and record the monthly and twelve (12) month rolling total of the amount of natural gas consumed in S001, S016-S019, and S052-S053.

5.5. Reporting Requirements

5.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

6.0. Source-Specific Requirements (Cryogenic HMO/Stabilizer Heaters: S013, S026, S037, S041, S045, S049, S056)

6.1. Limitations and Standards

6.1.1. **Maximum Design Heat Input.** The maximum design heat input for the Cryogenic HMO Heaters shall not exceed 26.3 MMBTU/hr for units S013, S026, S037, S045, S049 and 54.67 MMBTU/hr for unit S041. The maximum design heat input for the Stabilizer Heater (S056) shall not exceed 10.09 MMBTU/hr.

6.1.2. Maximum emissions from the Cryogenic HMO/Stabilizer Heaters shall not exceed the following:

a. The maximum emissions from Cryogenic HMO Heaters S013, S026, S037, S045, S049 shall not exceed the following individual unit limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S013, S026, S037, S045, S049	Nitrogen Oxides	2.58	11.29
	Carbon Monoxide	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.

b. The maximum emissions from Cryogenic HMO Heater S041 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S041	Nitrogen Oxides	5.36	23.48
	Carbon Monoxide	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.

c. The maximum emissions from Stabilizer Heater S056 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S056	Nitrogen Oxides	0.99	4.33
	Carbon Monoxide	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.

6.1.3. To demonstrate compliance with Section 6.1.2, the quantity of natural gas that shall be consumed in each of the 26.3 MMBTU/hr Cryogenic HMO Heaters (S013, S026, S037, S045, S049) shall not exceed 27,377 standard cubic feet per hour and 240 x 10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 54.67 MMBTU/hr Cryogenic HMO Heater (S041) shall not exceed 56,908 standard cubic feet per hour and 499 x 10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 10.09 MMBTU/hr Stabilizer Heater (S056) shall not exceed 10,503 standard cubic feet per hour and 92 x 10^6 standard cubic feet per year.

6.1.4 **45CSR2**

Each Cryogenic HMO and Stabilizer Heaters is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under (a) through (c):

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

b. The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

(2) The product of 0.09 and the total design heat input for the fuel burning units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than twelve hundred (1200) pounds per hour of particulate matter shall be discharged into the open air.
[45CSR§2-4.1(a)]

c. The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1.]

6.1.5. **40 CFR 60, Subpart Dc**

The Cryogenic HMO and Stabilizer Heaters are 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. Recordkeeping and reporting requirements shall be conducted in accordance with §60.48c. These reports shall be submitted in accordance with the time lines and in the order set forth in §60.48c and submitted to the addresses listed in Section 3.5.3.

6.2. Monitoring Requirements

6.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 6.1.4 of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

6.3. Testing Requirements

6.3.1. Compliance with the visible emission requirements of section 6.1.4 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 6.1.4. Continuous

opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

6.4. Recordkeeping Requirements

6.4.1. To demonstrate compliance with sections 6.1.1, 6.1.2, 6.1.3, the permittee shall monitor and record the monthly and twelve month rolling total of the amount of natural gas consumed in all heaters listed in this section.

6.4.2. The permittee shall maintain records of all monitoring data required by Section 6.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

6.5. Reporting Requirements

6.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

7.0. Source-Specific Requirements (Regeneration Gas Heaters: S012, S024, S036, S040, S044, S048)

7.1. Limitations and Standards

7.1.1. **Maximum Design Heat Input.** The maximum design heat input for the Regeneration Gas Heaters shall not exceed 9.7 MMBTU/hr for units S012, S024, S036, S044, S048 and 19.28 MMBTU/hr for unit S040.

7.1.2. Maximum emissions from the Regeneration Gas Heaters shall not exceed the following:

a. The maximum emissions from units S012, S024, S036, S044, and S048 shall not exceed the following individual unit limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S012, S024, S036, S044, S048	Nitrogen Oxides	0.95	4.17
	Carbon Monoxide	0.80	3.50
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.07	0.32
	VOCs	0.05	0.23

(1) Includes Condensables.

b. The maximum emissions from unit S040 shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S040	Nitrogen Oxides	1.89	8.28
	Carbon Monoxide	1.59	6.95
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.14	0.63
	VOCs	0.10	0.46

(1) Includes Condensables.

7.1.3. To demonstrate compliance with Section 7.1.2, the quantity of natural gas that shall be consumed in each of the 9.7 MMBTU/hr Regeneration Gas Heaters (S012, S024, S036, S044, and S048) shall not exceed 10,097 standard cubic feet per hour and 88 x 10^6 standard cubic feet per year. The quantity of natural gas that shall be consumed in the 19.28 MMBTU/hr Cryogenic HMO Heater (S040) shall not exceed 20,069 standard cubic feet per hour and 176 x 10^6 standard cubic feet per year.

7.1.4. **45CSR2**
Each Regeneration Gas Heater is subject to the applicable limitations and standards under 45CSR2, including the requirements as given below under (a) and (b):

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

b. The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1.]

7.2. Monitoring Requirements

7.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 7.1.4 of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

7.3. Testing Requirements

7.3.1. Compliance with the visible emission requirements of section 7.1.4 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 7.1.4. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

7.4. Recordkeeping Requirements

7.4.1. To demonstrate compliance with sections 7.1.1, 7.1.2, 7.1.3, the permittee shall monitor and record the monthly and twelve month rolling total of the amount of natural gas consumed in all heaters listed in this section.

7.4.2. The permittee shall maintain records of all monitoring data required by Section 7.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

7.5. Reporting Requirements

7.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

8.0. Source-Specific Requirements (Fire Pumps: S002, S003)

8.1. Limitations and Standards

8.1.1. The quantity of diesel fuel that shall be consumed in each of the 700 hp diesel-fired fire pump engines, Caterpillar Model C18 (S002, S003) shall not exceed 35.9 gallons per hour and 3,590 gallons per rolling twelve (12) month period during non-emergency use.

8.1.2. Maximum emissions from each of the 700 hp diesel-fired fire pumps, Caterpillar Model C18 (S002, S003) shall not exceed the following limits:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S002 S003	Nitrogen Oxides	4.63	0.23
	Carbon Monoxide	4.01	0.20
	$PM_{2.5}/PM_{10}/PM^{(1)}$	0.23	0.01
	Volatile Organic Compounds	4.63	0.23

8.1.3. **Maximum Annual Operation Limitation.** The maximum yearly hours of operation for each of the 700 hp diesel fired fire pump engines, Caterpillar Model C18 (S002, S003) shall not exceed an annual limit of 100 hours of non-emergency use as recorded with a non-resettable hour meter. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

8.1.4. **40 CFR 60, Subpart IIII**
S002 and S003 are each subject to all applicable regulations given under 40 CFR 60, Subpart IIII including the following:

a. Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. **[40CFR§60.4205(c)]**

8.1.5. **40 CFR 63, Subpart ZZZZ**
S002 and S003 are each subject to all applicable regulations given under 40 CFR 63, Subpart ZZZZ including the following:

a. *Stationary RICE subject to Regulations under 40 CFR Part 60.* 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, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part. **[40CFR§63.6590(c)]**

9.0. Source-Specific Requirements (Emergency Generators: S057)

9.1. Limitations and Standards

9.1.1. The permittee is authorized to install and operate one (1) or more natural gas-fired, 4-Stroke Lean Burn (4SLB) spark ignition reciprocating internal combustion engines with an aggregate horsepower not to exceed 16,000 to act as emergency generators. Maximum emissions from each of the engines shall not exceed their individual limits as given in 40 CFR 60, Subpart JJJJ. The maximum aggregate emissions from all such engines shall not exceed those given in the following table:

Emission Unit ID	Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
S057	Nitrogen Oxides	70.55	3.53
	Carbon Monoxide	141.10	7.05
	$PM_{2.5}/PM_{10}/PM^{(1)}$	1.28	0.06
	Volatile Organic Compounds	35.27	1.76
	Formaldehyde	6.76	0.34

9.1.2. **Maximum Annual Operation Limitation.** The maximum yearly hours of operation for each of the engines shall not exceed an annual limit of 100 hours of non-emergency use as recorded with a non-resettable hour meter. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

9.1.3. **40 CFR 60, Subpart JJJJ**
The emergency generators (S057) are each subject to all applicable regulations given under 40 CFR 60, Subpart JJJJ including the following:

a. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
[40CFR§60.4233(e)]

9.1.4. **40 CFR 63, Subpart ZZZZ**
The emergency generators (S057) are each subject to all applicable regulations given under 40 CFR 63, Subpart ZZZZ including the following:

a. *Stationary RICE subject to Regulations under 40 CFR Part 60.* 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, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[40CFR§63.6590(c)]

10.0. Source-Specific Hazardous Air Pollutant Requirements (Glycol Dehydration Units: S006, S032)

10.1. Limitations and Standards

10.1.1. The maximum aggregate wet natural gas throughput to Glycol Dehydration Unit S006 shall not exceed 460 MMscf/day or 167,900 MMscf/year. The maximum aggregate wet natural gas throughput to Glycol Dehydration Unit S032 shall not exceed 230 MMscf/day or 83,950 MMscf/year.

10.1.2. The maximum glycol recirculation rate in each Glycol Dehydration Unit (S006 and S032) shall not exceed 40 gallons per minute limit.

10.1.3. The maximum aggregate controlled emissions generated from each Glycol Dehydration Unit (S006 and S032), including the still vent and the flash tank, but not including the combustion exhaust emissions from the Reboiler, shall not exceed the limits given in the following tables:

a. Glycol Dehydration Unit S006:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
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).

b. Glycol Dehydration Unit S032:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
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

(2) 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).

10.1.4. Still Vent and flash tank vapors from S006 shall be routed to the Hot Oil Heater (S001: C001) and used as fuel. Still Vent and flash tank vapors from S032 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.

10.1.5. **40 CFR 63, Subpart HH: Exemptions**
Exemptions. The owner or operator of an area source is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in § 63.774(d)(1).
[40 CFR §63.764(e)(1)]

a. The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this subpart; or
[40 CFR §63.764(e)(1)(i)]

b. The actual average emissions of benzene from the glycol dehydration unit process vent 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.
[40 CFR §63.764(e)(1)(ii)]

10.1.6. The Reboiler (S029) shall operate according to the following requirements:

a. The MDHI of the unit shall not exceed 3.0 mmBtu/hr and it shall only be fired by natural gas;

b. The maximum combustion exhaust emissions from the Reboiler shall not exceed the limits given in the following table:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Carbon Monoxide	0.25	1.08
Nitrogen Oxides	0.29	1.29

c. As the annual emission limits given in 10.1.6(b) are based on operating 8,760 hours/year, there is no limit on the annual hours of operation or fuel usage of the Reboiler; and

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

10.1.7. The Vapor Combustor (V003) shall operate according to the following requirements:

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 vapor combustor shall have an MDHI, including the pilot light, not to exceed 5.59 MMBtu/hr.

b. The emissions from the vapor combustor (not including pass-through emissions from the regenerator still vent and flash tank) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Carbon Monoxide	1.54	6.74
Nitrogen Oxides	0.77	3.38

c. As the annual emission limits given in 10.1.7(b) are based on operating 8,760 hours/year, there is no limit on the annual hours of operation or waste gas combustion in the vapor combustor;

d. The vapor combustor shall be operated with a flame present at all times, as determined by the methods specified in section 10.2.4.;

e. The vapor combustor shall be designed for and operated with no visible emissions as determined by the methods specified in section 10.3.2. except for either (1) or (2):

(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 (2) 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).

f. The vapor combustor shall be operated at all times when emissions are vented to it;

g. To ensure compliance with 10.1.7(f), the permittee shall monitor in accordance with sections 10.2.4. of this permit;

h. The permittee shall operate and maintain the vapor combustor according to the manufacturer's specifications for operating and maintenance requirements to maintain the minimum guaranteed control efficiency of 98%; and

i. The vapor combustor is subject to the applicable requirements specified in 45CSR6.

10.2. Monitoring Requirements

10.2.1. For the purposes of demonstrating compliance with the maximum wet gas throughput limits set forth in 10.1.1., the permittee shall monitor and maintain monthly and rolling twelve month records of the wet gas throughputs in each of the Glycol Dehydration Units.

10.2.2. Compliance with the Maximum Glycol Recirculation Limitations set forth in 10.1.2. shall be determined using an average of a minimum of 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.

10.2.3. Representative gas sample collection and analysis frequency for dehydration units shall be determined as 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 dehydration unit, whichever is later.

10.2.4. To demonstrate compliance with the pilot flame requirements of sections 10.1.7(d), the permittee shall follow (a) and (b).

a. The presence of a pilot flame shall be continuously 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 event 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 of paragraphs (a) and (b) of this section 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).

10.3. Testing Requirements

10.3.1. The permittee shall sample wet natural gas in accordance with the Gas Processor Association (GPA) Method 2166 and analyze the samples in accordance with GPA Method 2286. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date.

Note: The DAQ defines a representative wet gas sample to be one that is characteristic of the average gas composition dehydrated throughout a calendar year. If an isolated sample is not indicative of the annual average composition, then a company may opt to produce a weighted average based on throughput between multiple sampling events, which can be used to define a more representative average annual gas composition profile.

10.3.2. To demonstrate compliance with the visible emissions requirements of section 10.1.7(e), the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

a. The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of 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, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course. The observation period shall be:

(1) *[Reserved]*
(2) a minimum of 15 minutes if demonstrating compliance with 10.1.7(e)(1); or
(3) a minimum of 1 hour if demonstrating compliance with 10.1.7(e)(2).

b. The visible emission check shall be conducted initially within 180 days of start-up to demonstrate compliance while vapors are being sent to the control device.

c. If during this visible emission check or at any other time visible emissions are observed, compliance with section 10.1.7(e) shall be determined by conducting opacity tests in accordance with Method 9 or 40 CFR 60, Appendix A.

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 particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5, and volatile organic compound 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 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. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above. **[45CSR6 §§7.1 and 7.2]**

10.4. Recordkeeping Requirements

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 of § 60.5413(d), a record shall be maintained of the performance test results.

10.4.2. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by section 10.3.2 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent.

10.4.3. To demonstrate compliance with section 10.1.7(h), the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency.

10.4.4. The permittee shall maintain records of any testing that is conducted according to section 10.3.

10.5. Reporting Requirements

10.5.1. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 per section 8.3.1(iii) must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

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 ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned.

10.5.3. Any time the air pollution control device is 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 ten (10) calendar days of the discovery.

11.0. *[Reserved]*

12.0. Source-Specific Requirements (40 CFR 60 Subpart Kb, Storage Tanks: TK-802, TK-2802, TK-3802, TK-4802, TK-5802, TK-6802, TK-7802, VRU)

12.1. Limitations and Standards

12.1.1. Each of the Natural Gasoline Storage Tanks (TK-802, TK-2802, TK-3802, TK-4802, TK-5802, and TK-6802) will utilize a natural gas blanket to eliminate natural gasoline vapors from being emitted to atmosphere. Working and breathing losses of natural gas from these tanks shall be collected by the VRU and sent via closed vent system to the Hot Oil Heater (S001) for use as fuel.

12.1.2. The Refrigerated Propane Storage Tank (TK-7802) 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.

12.1.3. The VRU shall employ a vapor return which shall be designed to achieve a guaranteed capture efficiency of 100% for each storage tank listed in this section.

12.1.4. The Natural Gasoline Storage Tanks and the Refrigerated Propane Storage Tank are subject to all 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 m3 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 m3 but less than 151 m3 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)]

(i) 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)]

12.2. Monitoring Requirements

12.2.1. To demonstrate compliance with section 12.1.3, the permittee shall monitor the vapor recovery unit system in accordance with the plans and specifications and manufacturer's recommendations.

12.3. Recordkeeping Requirements

12.3.1. **Record of Maintenance of Vapor Recovery Unit.** The permittee shall maintain accurate records of the vapor recovery unit equipment inspection and/or preventative maintenance procedures.

12.3.2. **Record of Malfunctions of Vapor Recovery Unit**. The permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the vapor recovery unit 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.

12.3.3. Upon request by the Director, the permittee shall report deviations within a requested time from of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

13.0. Source-Specific Requirements (Flare, S004A)

13.1. Limitations and Standards

13.1.1. The 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), designated as S004A, for control of potential emissions from maintenance events, equipment blowdowns, pressure relief valves, and other controlled sources. The flare shall have a maximum design capacity of 19.8 mmscf/hr.

13.1.2. The Flare (S004A) shall operate according to the following requirements:

a. Maximum aggregate combustion exhaust emissions (not including uncombusted pass-through emissions of VOCs) from operation of the Flare (including those contributed by the pilot light) 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/year)
Nitrogen Oxides	1,539.61	6.73
Carbon Monoxide	3,073.64	13.43
$PM_{2.5}/PM_{10}/PM$	25.34	0.25
VOCs	18.34	0.18

b. Based on the minimum VOC destruction and removal efficiency (DRE) of 98.0% as given under 13.1.7., maximum emissions of uncombusted pass-through VOCs and HAPs (generated during routine maintenance events, equipment blowdowns, and from pressure relief valves) emitted at the Flare (as uncombusted pass-through emissions) shall not exceed 10,153 lbs/hour and 12.71 tons/yr of VOCs and 4.53 lbs/hour and 0.08 tons/yr of HAPs.

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 twelve month period.

13.1.4. The Flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is either 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr or 2.72 for an incinerator with a capacity of 15,000 lbs/hr or greater.
[45CSR6 §4.1]

b. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR6 §4.3]

c. The provisions of paragraph (ii) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per startup. **[45CSR6 §4.4]**

d. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR6 §4.5]

e. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR6 §4.6]

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]

g. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above.
[45CSR6 §7.2]

h. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. 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 Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR6 §8.2]

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.

13.1.6. *[Reserved]*

13.1.7. The Flare shall be operated and designed in accordance with the information filed in permit application R13-2896F to achieve a VOC DRE of 98.0%.

13.1.8. The inlet gas flow rate of the Flare must be equal to or less than the maximum specified by the manufacturer.

13.1.9. The permittee will comply with the requirements of Section 2.12 of this permit during emergency operation of the Flare.

13.2. Monitoring, Compliance Demonstration, Recording, and Record-keeping Requirements

13.2.1. In order 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.

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.

13.2.3. The permittee shall meet the following Visible Emissions Requirements for the Ground Flare:

a. To demonstrate compliance with the visible emissions requirements of 45CSR6, the permittee shall conduct the following visible emission checks and/or opacity monitoring and recordkeeping for the Ground Flare:

(1) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of 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, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course. The observation period (Section 11 of EPA Method 22) shall be a minimum of one (1) hour each calendar month during flaring operation;

(2) As the Ground Flare is of smokeless design, any observation of visible emissions will indicate incorrect operation of the flare. Therefore, upon the observation of visible emissions, 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 visible emissions observations according to 13.2.3(a) during the flaring operation;

(3) The permittee shall maintain records of all monitoring data required by 13.2.3 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s);

(4) Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40 CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

13.2.4. For the purpose of demonstrating compliance with section 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.

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 thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

13.2.6. Any deviation(s) 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 ten (10) calendar days of discovery of such deviation.

13.2.7. The permittee shall report to the Director, the time, cause of event, estimate of emissions and corrective actions taken when the Ground Flare was used for an emergency at the facility.

14.0. Source-Specific Requirements (Ethane Amine Units: S011, S054)

14.1. Limitations and Standards

14.1.1. **Maximum Throughput Limitation.** The maximum sour ethane throughput to each individual Ethane Amine Unit shall not exceed 129 mmscf/day and 47,085 mmscf/year (or, alternatively 81,523 barrels/day and 29,755,895 barrels/year of treated ethane). Compliance with the Maximum Throughput Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

14.1.2. Each Ethane Amine Unit (S011, S054) shall be designed and operated in accordance with the following:

a. Carbon dioxide will be removed from the ethane product in an amine contacting system;

b. The total ethane product shall be contacted with an amine solution in the Amine Contactor where the carbon dioxide 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 carbon dioxide 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.

14.1.3. Off gas from both Ethane Amine Units' flash tanks shall be collected and sent to the Ground Flare (S004A) for combustion.

14.1.4. Maximum methanol and VOC emissions from Ethane Amine Unit S011 shall not exceed 1.82 pounds per hour and 7.99 tons per year, and 1.98 pounds per hour and 8.67 tons per year, respectively.

14.1.5. The still vent emissions from S054 shall be, at a minimum of 95% of time the unit is in operation, captured by the vapor recovery unit (C006) and routed to the residue gas discharge line. During VRU downtime, emissions from S054 still vent shall vent to atmosphere. Maximum methanol and VOC emissions from Ethane Amine Unit S054 shall not exceed 1.82 pounds per hour and 0.40 tons per year, and 1.98 pounds per hour and 0.43 tons per year, respectively.

14.2. Monitoring, Compliance Demonstration, Recording, and Record-keeping Requirements

14.2.1. In order to show compliance with 14.1.1., the permittee shall either: (1) monitor and record the monthly and twelve-month total throughput of sour ethane fed to both Ethane Amine Units, or (2) monitor and record the monthly and twelve-month total throughput of total treated ethane from both Ethane Amine Units.

14.2.2. The permittee shall monitor and record the monthly and twelve-month total percentage of time Ethane Amine Unit S054 is operated when the VRU is not in operation.

14.2.3. The permittee shall conduct, at a minimum of once per twelve-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 above.

15.0. Source-Specific Requirements (Other Storage Tanks: TK-906, TK-2906, TK-907, TK-2907, Liquids Loading/Unloading: S008, S015, S033, S055, L-1)

15.1. Limitations and Standards

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	TPY
S008	Propane	3,600 (vb)	4,000 (vb)	4,000 (vb)	4.36	2.18
	Isobutane			No		
	Butanes			No		
	NGL			No		
	Natural Gasoline	600 (vb)	2,000 (vb)	n/a		
S033		n/a	n/a	4,000	97.22	82.69
S015	Slop Oil/Produced Water	150	No	No	2.32	0.11
L-1	Gasoline Dispenser	1	No	No	0.18	0.01
S055	Pressurized NGL/Condensate (Unloading)	3,600	n/a	No	9.05	19.83

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.

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, isobutane, 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.

15.1.4. All truck loading of Slop Oil and Produced Water shall be done 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 is practicable, below the level of liquid.

15.1.5. The maximum annual throughput and VOC emissions for the specified tanks shall not exceed what is given in the following table:

Tank	Material	Throughput (gallons)	Emissions (tons)
TK-L-1	Gasoline(1)	12,000	0.13
TK-906	Slop Oil	248,712	0.05
TK-907	Produced Water	754,824	0.14
TK-2906	Slop Oil	248,712	0.05
TK-2907	Produced Water	754,824	0.14

(1) This is purchased retail gasoline, not natural gasoline as produced on site.

15.2. Recordkeeping Requirements

15.2.1. To demonstrate compliance with section 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 (S008, S033, S055) and in the specified storage tanks.

16.0. Source-Specific Requirements (Pigging Operations: S034, S035)

16.1. Limitations and Standards

16.1.1. The permittee shall utilize a non-assisted flare, designated as S034, 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%.

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.

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/year)
Nitrogen Oxides	24.25	0.15
Carbon Monoxide	13.99	0.08
$PM_{2.5}/PM_{10}/PM$	1.31	0.01

16.1.4. Based on the minimum VOC DRE of 98.0% as required under 16.1.1., maximum emissions of uncombusted VOCs emitted at the Pigging Flare shall not exceed 227.77 lbs/hour and 1.37 tons/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 lbs/hr and 47.86 tons/yr, and 15.9 lbs/hr and 0.55 tons/yr, respectively.

16.1.5. The Pigging Flare shall be designed and operated in accordance with 40 CFR 60, Section 60.18.

16.1.6. The Pigging Flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to those given under 13.1.4.

16.2. Monitoring, Compliance Demonstration, Recording, and Record-keeping Requirements

16.2.1. In order to show compliance with 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 twelve-month basis.

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 twelve-month total for all pig traps.

16.2.3. The permittee shall meet the following Visible Emissions Requirements for the S034:

a. To demonstrate compliance with the visible emissions requirements of 45CSR6, the permittee shall conduct the following visible emission checks and/or opacity monitoring and recordkeeping for the Pigging Flare:

(1) The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of 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, wind, and the presence of uncombined water (condensing water vapor) on the visibility of

emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course. 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 Pigging Flare is of smokeless design, any observation of visible emissions will indicate incorrect operation of the flare. Therefore, upon the observation of visible emissions, 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 visible emissions observations according to 16.2.3(a)(1) during the next pig trap flaring operation; and

(3) The permittee shall maintain records of all monitoring data required by 16.2.3 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s).

17.0. Source-Specific Requirements (40 CFR 60 Subpart KKK, OOOO and OOOOa Requirements: FUG AREA 1 through 7)

17.1. Limitations and Standards, Monitoring, Recordkeeping, and Reporting Requirements

17.1.1. **40 CFR 60 Subpart KKK (FUG AREA1)**
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.

17.1.2. **40 CFR 60 Subpart OOOO (FUG AREA 2 AND FUG AREA 3)**
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.

17.1.3. **40 CFR 60 Subpart OOOOa (FUG AREAS 4 – 7)**
The permittee shall operate FUG AREA 4 through 7 (currently Frac 1 and Cryo 4 through 7) in accordance with all applicable requirements given under 40 CFR 60 Subpart OOOOa.

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, OOOO, and 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 17.1.1 through 17.1.3 and shall be considered enforceable until such time as the permit is appropriately revised.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.