West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Construct

R13-3227

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:

CONE Midstream Partners LP
Camden Station
041-00068

William F. Durham
Director

Issued: June 23, 2015

Facility Location:	183 Kemper Run Road Camden, Lewis County, West Virginia
Mailing Address:	1000 CONSOL Energy Drive Canonsburg, PA 15317
Facility Description:	Natural Gas Production Dehydration Station
NAICS Codes:	213112
UTM Coordinates:	536.90 km Easting • 4,327.76 km Northing • Zone 17]
Permit Type:	Construction
Description of Change:	This action is for the construction of a dehydration station to support a natural gas production pipeline segment.

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 not subject to 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
TK-2205	TV-1	Produced Fluids Tank	2015	4,200 gallon	VDU-1
VDU-1	TV-1	Vapor Destruction Unit Enclosed Flare ABUTEC 100 Maximum inlet flow rate – 6,000 scfh	2015	9.21 MMBtu/hr	N/A
SV-1	VS-2	Dehydrator Still Vent	2015	N/A	None
BLR-1	VS-1	Dehydrator Reboiler	2015	0.375 MMBtu/hr	None
V-700	VS-1	Glycol Flash Gas Separator (Flash Tank)	2015	N/A	Reboiler
	VS-3				None
BL-1	TV-1	Produced Fluids Loadout	2015	N/A	VDU-1

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

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 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 R13-3227 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§§13-5.11 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

[Reserved]

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) 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

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

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.4.2. In accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for a Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the CTO application.

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. The permittee shall install, operate and maintain the natural gas dehydration unit in accordance with the following requirements:

a. For the purposes of limiting emissions of benzene from the flash tank back pressure vent and still vent of the regenerator to less than 1.0 ton per year, the permittee shall limit throughput of gas through the unit as stated in item b of this condition and optimize the glycol circulation rate as stated in items c of this condition.

b. The maximum amount of wet natural gas processed through the dehydration unit shall not exceed 20 MMscf per day. Compliance with this limit shall be determined using the daily throughput average on a monthly basis.

c. The glycol circulation rate through the dehydration unit shall not exceed the optimized rate as determined using GRI-GLYCalc™, Version 3.0 or higher. The permittee shall use a lean glycol recirculation ration of no greater than 3.0 gallons of glycol per lb of water and current incoming gas conditions. The permittee may use an alternative process simulator to determine the optimized glycol rate if approved by the Director. Current conditions in this condition shall mean the daily average of the previous month.

d. The flash tank off gas of the dehydration unit shall either be routed to the pilot light and burner of the reboiler as fuel gas, instrument gas heaters as fuel gas or to the flash Tank back pressure vent while the dehydration unit is in operation.

e. Emissions from the flash Tank back pressure vent shall not exceed the following limits:

i. Emission of VOCs shall not exceed 1.19 pounds per hour with an annual limit of 5.20 tons per year.

ii. Emission of total Hazardous Air Pollutants shall not exceed 0.06 pounds per hour with an annual limit not to exceed of 0.24 tons per year.

iii. The combined total of benzene, toluene, ethyl benzene, and xylene (BTEX) shall not exceed 0.01 pounds per hour with an annual limit not to exceed of 0.02 tons per year.

f. The emissions from the still vent of the regenerator shall not exceed the following limits:

i. Emissions of VOCs shall not exceed 3.49 pounds per hour with an annual limit of 15.6 tons per year.

ii. Emissions of total Hazardous Air Pollutants shall not exceed 1.06 pounds per hour with an annual limit not to exceed of 4.63 tons per year.

iii. The combined total of benzene, toluene, ethyl benzene, and xylene (BTEX) shall not exceed 0.89 pounds per hour with an annual limit not to exceed of 3.89 tons per year.

g. The re-boiler shall be operated and maintained in accordance with Condition 4.1.2.

4.1.2. The permittee shall operate and maintain the reboiler for the dehydration unit in accordance with the following emission limitations and operating parameters.

a. Emissions of VOC from the emission point RBR01 shall not exceed 0.06 pounds per hour. Annual VOC emissions shall not exceed 0.26 tons per year on a 12-month rolling total.

b. Total hazardous air pollutants (HAPs), which include BTEX, from the emission point RBR01shall not exceed 0.01 pounds per hour. Annual VOC emissions from the FLARE01 shall not exceed 0.01 tons per year on a 12-month rolling total.

c. Sulfur dioxide emissions from the reboiler shall not exceed 0.05 pounds per hour. Compliance with this emission limit is satisfied by limiting the hydrogen sulfide (H_2S) loading of the incoming natural gas to the dehydration unit to be no greater than 4.0 grains of H2S per 100 cubic feet of natural gas or 65 ppm of H_2S by volume.
[45 CSR §10-5.1.]

d. The permittee shall operate and maintain the reboiler in a manner to minimize emissions. Such operation of the flare shall constitute the following:

i. The pilot light for the reboiler shall be lit at all times when glycol is circulating in the dehydration unit. The fuel source for the pilot light shall be the flash tank off gas of the dehydrator.

ii. Visible emissions from emission point RBR01shall not exceed 10% opacity on a 6-minute block average. Compliance with this requirement is satisfied by complying with the fuel type restriction in Condition 4.1.2.d.iii.
[45 CSR §2-3.1]

iii. The reboiler shall only be fueled with natural gas, flash tank off gas, or any combination of these two fuels.

4.1.3. Emissions from Tank TK-2205shall be vented to the vapor destruction unit (VDU-1) through a closed vent system at all times while the vessel is in service. During loading operations into Tanker trucks from Tank TK-2205, the tanker truck vapor line shall be connected to the main header of the closed vent system going to VDU-1. The closed vent system shall be installed, operated, and maintained with no detectable emissions, determined using AVO inspection and/or Method 21, optical gas imaging instrument (i.e. forward looking infrared camera) or some combination thereof and must be approved by the Director. The vacuum/pressure vent valve on TK-2205 shall be included as part of the closed vent system. The pressure vent valve shall be equipped with an indicator system (i.e. rupture disk, bursting disc, etc.) that visually signals if opened to relief the pressure on the vessel. When using Method 21 only, leaking shall mean a concentration reading of 2,000 ppm or greater.

4.1.4. The permittee shall operate and maintain the vapor destruction unit for Tank TK-2205in accordance with the following emission limitations and operating parameters.

a. Emissions of VOCs from the VDU-1 shall not exceed 0.74 pounds per hour. Annual VOC emissions from the VDU01 shall not exceed 3.25 tons per year on a 12-month rolling total. Compliance with the emission limit is based on a daily throughput of produced fluids from Tank TK-2205 of less than 9.27 barrels per day and that VDU-1 is operated in accordance with item e of this condition.

b. Particulate matter emissions from VDU-1 shall not exceed 0.01 pounds per hour. Compliance with this limit is satisfied by complying with requirements of Condition 4.1.4.d.
[45 CSR §6-4.3.]

c. Sulfur dioxide emissions from VDU-1 shall not exceed 0.007 pounds per hour. Compliance with this emission limit is satisfied by limiting the hydrogen sulfide (H_2S) loading of the incoming natural gas to the dehydration unit to no greater than 4.0 grains of H2S per 100 cubic feet of natural gas or 65 ppm of H_2S by volume.
[45 CSR §10-5.1.]

d. The permittee shall operate and maintain the VDU in a manner to minimize VOC and total HAP emissions. Such operation of the VDU shall constitute the following:

i. The VDU shall not exhibit any visible emissions, except for periods not to exceed a total of 2 minutes during any hour.
[45 CSR §6-4.3.]

ii. The VDU unit shall be a model of unit that the control device manufacturer had demonstrated to the U.S. EPA Administrator that the VDU meets the control device performance requirements of Subpart OOOO to Part 60. The actual flowrate from TK-2205 shall not exceed the maximum flowrate as determined by the Administrator.

iii. The pilot light for the flare shall be lit at all times when Tank TK-2205 is in service.

4.1.5. **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§13-5.11.]

4.2. Monitoring Requirements

4.2.1. The permittee shall monitor and record the following parameters for the purpose of demonstrating compliance with the limits in Conditions 4.1.1., 4.1.2., 4.1.3.:

a. The amount of natural gas on a standard basis going into the contactor tower on a daily basis and determine the daily average on a monthly basis.

b. The actual pressure and temperature of the incoming gas shall be monitored and recorded daily.

c. On a monthly basis, the permittee shall determine if the temperature, pressures and flow rate of the incoming natural gas has changed to the point that the circulation rate of glycol is greater than as determined in Condition 4.1.1.c.. Such determination shall be made within five (5) days of the end of the corresponding calendar month. If it is determine that the circulation rate of glycol is greater than allowed, the permittee has five (5) addition days to adjust the circulation rate of glycol to be within the allowable as determined in Condition 4.1.1c.

d. Measure and record the circulation rate of glycol through the dehydration unit once per month and identify any periods the flow rate exceeded the limit in Conditions 4.1.1.c. or 4.1.1.d.

e. The presence of a flame in the reboiler and identify any periods there was no flame present when the glycol pump was operating.

f. Record the amount of produced fluids loaded out from Tank TK-2205 for each month the vessel is in service and determines the daily average for the calendar month.

g. The presence of a flame in the VDU and identify any periods there was no flame present while Tank TK-2205 is in service.

Records of such monitoring shall be maintained in accordance with Condition 3.4.1. This shall include the date and time any adjustments of the glycol circulation rate is made and calculations used to determine of the allowable circulation rate.

4.2.2. For the purpose of demonstrating compliance with Condition 4.1.2.c., the permittee shall conduct gas sampling at a point that is representative of the incoming natural gas being dehydrated by the dehydration unit and analyzing the sample to determine the hydrogen sulfide content of the sample. At the minimum, such sampling and analysis shall be conducted within 60 days of initial start-up of the dehydration unit and once per year thereafter. Once per year shall mean between 11 months to 13 months from the previous gas sampling. Records of such monitoring shall be maintained in accordance with Condition 3.4.1. of this permit.
[45 CSR §10-8.3.a.]

4.2.3. For the purpose of demonstrating compliance with the closed vent system requirements of Conditions 4.1.1. and 4.1.3., the permittee shall conduct initial and annual visual, olfactory, and auditory inspection or those methods listed in Condition 4.1.3. for defects (leaks) that could result in fugitive emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

a. The initial inspection of the system(s) shall be conducted within 60 days after placing Tank TK-2205 into service and within 60 days of startup of the dehydration unit.

i. The initial inspection shall include pressure relief valves and conducted according to item c of this condition.

ii. In the event that a leak or defect is detected, the permittee must repair the leak or defect as soon as practicable. Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.

iii. The permittee shall notify the Director in writing of leaks or defects that cannot be repaired within 15 days of detection. Such notification shall include the scope of the repair, projected repair date and explanation of the delay of the repair.

iv. Within 5 days after making a repair to a leaking component, the permittee shall conduct a follow-up inspection of the defect or component.

b. Annual inspection of the system(s) shall be conducted within 11 to 13 months from the previous inspection and conducted according to item c of this condition. Such inspection shall include pressure relief devices or valves.

i. In the event that a leak or defect is detected, the permittee must repair the leak or defect as soon as practicable. Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.

ii. The permittee shall notify the Director in writing of leaks or defects that cannot be repaired within 15 days of detection. Such notification shall include the scope of the repair, projected repair date and explanation of the delay of the repair.

iii. Within 5 days of after making a repair to a leaking component, the permittee shall conduct a follow-up inspection of the defect or component.

c. Pressure relief devices or valves shall be inspected to ensure the device or valve is closed or seated when operating pressures are less than the opening pressure of the device or valve. The flash tank back pressure vent valve shall be inspected for leaks only when there is a call for heat to the reboiler.

Records of monitoring, including instrument calibrations, shall be maintained in accordance with Condition 3.4.1.

4.2.4. For the purpose of demonstrating proper operation of the VDU, the permittee shall conduct a visible emission observation using Section 11 of Method 22 for one hour once every calendar quarter in which Tank TK-2205 is in service. If during the first 30 minutes of the observation there were no visible emission observed, the permittee may stop the observation.

If at the end of the observation and visible emission were observed for more than 2 minutes, then the permittee shall follow manufacture's repair instruction, if available or best combustion engineering practice as outline in the unit inspection and maintenance plan. To return the flare to compliant operation, the permittee shall repeat the visible emission observation. Records of such monitoring and repair activities shall be maintained in accordance with Condition 3.4.1.

4.3. Testing Requirements

4.3.1. For the purposes of demonstrating proper operation of the VDU, the permittee shall conduct an initial performance test within 60 days after initial startup of the VDU. Permittee shall conduct a Method 22 (visual emission observation) of Appendix A to Part 60 to determine if the VDU is operating within compliance of Condition 4.1.4.d.i. The observation period for this demonstration is 2 hours. The permittee shall record the parameters identified in Condition 4.2.1. Such demonstration shall be conducted in accordance with the applicable portions of Condition 3.3.1. Records of such demonstration shall be maintained in accordance with Condition 3.4.1.

4.4. Recordkeeping Requirements

4.4.1. **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.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **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.

4.5. Reporting Requirements

[Reserved]

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. _____

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[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.