



west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304 926 0475 • Fax: 304 926 0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

April 8, 2016

CERTIFIED MAIL

91 7199 9991 7034 1376 2632

Ms. Diana Charletta
Senior Vice-President
Equitrans LP
625 Liberty Avenue
Suite 1700
Pittsburgh, PA 15212

Re: Equitrans LP
Copley Run #70 Compressor Station
Permit No. R13-2397C
Plant ID No.041-00009

Dear Ms. Charletta:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-2397C is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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.

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,

Promoting a healthy environment.

Permit Cover Letter to Ms. Charletta
April 8, 2016
Page 2 of 2

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.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1214.



Edward S. Andrews, P.E.
Engineer

Enclosures

c. Mark Sowa, MSowa@eqt.com

Permit to Administratively Update



R13-2397C

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:
Equitrans LP
Copley Run Compressor Station
041-00009

A handwritten signature in blue ink, appearing to read "William F. Durham", written over a horizontal line.

William F. Durham
Director

Issued: April 8, 2016

This permit will supersede and replace Permit R13-2397B.

Facility Location: North on U.S. Route 19,
Travel 1 mile then turn left onto Route 17 (Copley Run Road)
Weston, County, West Virginia

Mailing Address: Route 4, Box 640
Weston, WV 26452

Facility Description: Natural Gas Transmission

NAICS Codes: 486210

UTM Coordinates: 541.39 km Easting • 4,314.77 km Northing • Zone 17

Permit Type: Class II Administrative Update

Description of Change: This action is to address exceedance of hours of operation for Compressor Engine C-005 per Consent Order CO-R13, 14-E-2015-05.

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 subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

Table of Contents

1.0. Emission Units.....4

2.0. General Conditions.....5

 2.1. Definitions5

 2.2. Acronyms5

 2.3. Authority5

 2.4. Term and Renewal.....6

 2.5. Duty to Comply6

 2.6. Duty to Provide Information.....6

 2.7. Duty to Supplement and Correct Information7

 2.8. Administrative Update.....7

 2.9. Permit Modification.....7

 2.10 Major Permit Modification.....7

 2.11. Inspection and Entry7

 2.12. Emergency.....7

 2.13. Need to Halt or Reduce Activity Not a Defense.....8

 2.14. Suspension of Activities8

 2.15. Property Rights.....8

 2.16. Severability.....9

 2.17. Transferability9

 2.18. Notification Requirements.....9

 2.19. Credible Evidence9

3.0. Facility-Wide Requirements10

 3.1. Limitations and Standards10

 3.2. Monitoring Requirements.....10

 3.3. Testing Requirements.....10

 3.4. Recordkeeping Requirements.....11

 3.5. Reporting Requirements.....12

4.0. Source-Specific Requirements.....14

 4.1. Limitations and Standards14

 4.2. Monitoring Requirements.....16

 4.3. Testing Requirements.....18

 4.4. Recordkeeping Requirements.....18

 4.5. Reporting Requirements.....19

CERTIFICATION OF DATA ACCURACY.....20

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
C-005	C-005	Cooper-Bessemer GMVR Reciprocating Engine/Integral Compressor Model GMVH10 SN: 49126	1993	1350 hp	None
004-01	004-01 (re-boiler)	NATCO Dehy, Model #5 GR-3000-TX10 w/ 1.5 MMBtu/hr re-boiler	1992	46 MMscf/day	Flare
004-02	004-02	CE NATCO Dehy, Model GS 3100E w/ 3.0 MMBtu/hr re-boiler (Storage Dehy)	1992	140 MMscf/day	Re-boiler
003-03	003-03	Inline Gas Heater w/NATCO 4 CI burner	1992	2.1 MMBtu/hr	None
Dehy Flare	Dehy Flare	Flare Industries, Inc., Model 25' OAH x 48" flare	1992	0.84 MMBtu/hr	None

Emission Unit ID	Emission Point ID	Control Device Description	Year Installed
004-01	Dehy Flare	Flare Industries, Inc., Model 25' OAH x 48" flare	1992

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	PM₁₀	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppmv or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
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;*
- 2.3.2. 45CSR14 – *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2397B. 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 R13-2397, R13-2397A, R13-2397B, R13-2397C 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 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. The facility shall employ a Cooper-Bessemer GMVR Reciprocating Engine/Integral Compressor, identified as CE-5. The operation of this engine shall not exceed the following maximum operating and emission limitations.

- a. The engine shall not operate more than 7,709 hours per year; and
- b. Emissions from the engine shall not exceed the maximum hourly and annual emission limits set forth in Table 4.1.1.b.

Pollutant	Lb/hr	TPY
Oxides of Nitrogen	10.0	38.55
Carbon Monoxide	5.95	22.94
VOCs	1.49	5.74

4.1.2. The facility shall employ one NATCO triethylene glycol dehydration unit identified as 004-001. The operation of this unit shall not exceed the following operating and emission limitations:

- a. The throughput of wet natural gas through the glycol dehydration unit/still column shall not exceed 46 MMscf/day;
- b. The re-boiler shall have a maximum design heat input of 3.0 MMBtu/hr and be limited to fuel with natural gas;
- c. The vapors/overheads from the still column and flash tank shall be route through a closed vent system to the flare (Dehy Flare) at all times when there is a potential that vapors (emissions) can be generated from the still column and/or flash tank;
- d. The flare identified as Dehy Flare shall be non-assisted;
- e. The Dehy Flare shall be operated at all times when emissions may be vented to it;
- f. The Dehy Flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours;
- g. The Dehy Flare shall be operated with a flame present at all times;
- h. Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant =

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv} \right) \left(\frac{g\text{-mole}}{scm} \right) \left(\frac{MJ}{kcal} \right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 if published values are not available or cannot be calculated.

n = Number of sample components.

- i. The flare shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec). The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director);
- l. Emissions from the Dehy Flare shall not exceed the maximum hourly and annual emission limits set forth in Table 4.1.2.1.

Pollutant	Emission Rates	
	Hourly (lb/hr)	Annual (TPY)
Oxides of Nitrogen	0.1	0.4
Carbon Monoxide	0.3	1.3
VOC	1.6	7.2
Benzene	0.1	0.3
Total HAPs (includes benzene)	0.7	3.0

- 4.1.3. The facility shall employ one NATCO, model GS 3100E dehydration unit identified as 004-002 (referred as the Storage Dehy). The operation of this unit shall not exceed the following operating and emission limitations:
 - a. The throughput of wet natural gas through the glycol dehydration unit/still column shall not exceed 140 MMscf/day;
 - b. The vapors/overheads from the still column and flash tank shall be route through a closed-vent system to the burner of re-boiler at all times when there is a potential that vapors (emissions) can be generated from the still column and/or flash tank. The closed-vent system shall be designed and operated with no detectable emissions.

- c. The re-boiler burner shall be operated at all times when there is a potential of vapors (emissions) being generator from the flash tank and/or still column;
- d. The re-boiler shall only be fired with vapors from the still column and flash tank, and natural gas may be used as supplemental fuel;
- e. The vapors/overheads from the still column and flash tank shall be introduced into the flame zone of the re-boiler burner.
- f. The burner or pilot light of the reboiler shall be operated with a flame present at all times when natural gas is being dehydrated by the unit.
- g. Emissions from the re-boiler shall not exceed the maximum hourly and annual emission limits set forth in Table 4.1.3.g.

Pollutant	Emission Rates	
	Hourly (lb/hr)	Annual (TPY)
Oxides of Nitrogen	0.28	1.2
Carbon Monoxide	0.14	0.6
VOC	3.4	15.1
Benzene	0.11	0.5
Total HAPs (includes benzene)	1.8	8.1

- h. The re-boiler for Dehy 004-02 and the Inline Heater 003-03, on an individual basis, shall not exhibit visible emissions into the open-air greater than ten (10) percent opacity based on a six-minute block average. Continuous compliance with this requirement is met by complying with fuel restrictions in 4.1.3.d. and 4.1.3.e.
 [45CSR§§2-3.1. & 2-8.4.b., & 2-8.4.c.]

4.1.4. **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 Condition 4.1.2. for Dehy 004-01:
 - a. The permittee shall determine the actual annual average natural gas throughput as determined by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.
 [40 CFR §63.774(d)(1) & §63.772(b)(1)]
 - b. The actual average benzene emissions (in terms of benzene emissions per year) shall be determined on an annual basis in accordance with 40 CFR §63.772(b)(2) . Determination of the actual average benzene emissions from the dehydration unit shall be made using the model GRIGLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures

documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1)
[40 CFR §63.772(b)(2)(i) & §63.774(d)(1)(ii)]

- c. Identify any periods there was no flame present for the flare or pilot light of the flare when the dehydration unit was in operation.
 - d. The permittee shall sample the inlet gas to Dehy 004-01 in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook once per calendar year. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration column, but after any type of separation device, in accordance with GPA method 2166.
 - e. Records of such monitoring shall be maintained in accordance with Condition 3.4.1.
- 4.2.2. The permittee shall monitor and record the following parameters for the purpose of demonstrating compliance with Condition 4.1.3. for the Storage Dehy (Dehy 004-02):
- a. The permittee shall determine the actual natural gas flowrate to the storage dehy and the number of days during the calendar year that the storage dehy actually operated. The permittee shall determine actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) by converting the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the storage dehy processed natural gas.
 - b. Identify any periods there was no flame presence for the pilot light of the reboiler when the dehydration unit was in operation.
 - c. Determination of the actual average benzene emissions from the dehydration unit shall be made using the model GRIGLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).
 - d. The permittee shall sample the inlet gas to Storage Dehy in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook once every three years. Should the dehydration unit is not in operation within the above noted time period to take a representative the gas sample, the permittee shall the inlet gas sample within 30 days after resuming operations of the dehydration unit. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration column, but after any type of separation device, in accordance with GPA method 2166.

Records of such monitoring shall be maintained in accordance with Condition 3.4.1.

- 4.2.3. For the purpose of demonstrating proper operation of the flare, the permittee shall conduct a visible emission observation using Section 11 of Method 22 for one hour once every calendar quarter in which the dehydration unit operates. 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 2.5 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. Should the permittee elect to utilize other equivalent method(s) than the ones listed in Conditions 4.2.1.d. or 4.2.2.d. provided the method(s) are approved in advance by the Director 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. Records of the protocol, approval letter, chain of custody document, and result 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.
- 4.4.4. The permittee shall maintain a record of the hours of operation of compressor engine C-005 to demonstrate compliance with Condition 4.1.1. of this permit. Said records shall be maintained in accordance with 3.4.1. of this permit
- 4.4.5. For the purpose of demonstrating compliance with Condition 4.1.2, the permittee shall maintain a record of the flare design evaluation. The flare design evaluation shall include, but not limited to, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations. Said records shall be maintained in accordance with 3.4.1. of this permit.
- 4.4.6. For the purpose of demonstrating compliance with the Dehy Flare design requirements set forth in Condition 4.1.2, the permittee shall maintain records of testing conducted on February 4 through 6, 2009. Said records shall be maintained in accordance with Condition 3.4.1. for the life of the Dehy Flare or unless a more recent satisfactory flare evaluation is conducted.
- 4.4.7. For the purpose of demonstrating compliance with the requirements set forth in Conditions 4.3.1 and the limits set forth in 4.1.2. and 4.1.3., the permittee shall maintain records of the wet gas sampling and analysis conducted, as required, during the initial compliance determination or subsequent compliance determinations. Said records shall be maintained in accordance with 3.4.1 of this permit

4.5. Reporting Requirements

- 4.5.1. The permittee shall submit a report of the wet gas sampling required by Condition 4.3.1 of this permit within 90 days of conducting the sampling of the wet gas stream. This report shall include a potential to emit (PTE) estimate modeled using GlyCalc Version 4 or higher software, which incorporates site specific parameters measured in accordance with 4.2.1 or operating parameters that provide the highest HAP emissions when using GRI-GLYCalc V4 or higher. The emission estimate shall also incorporate a copy of the lab analysis obtained from the wet gas sampling as well as a description of how and where the sample was taken. The report shall include a reference to all sampling and analytical methods utilized and identification of where the compressor station is located before or after the liquids extraction plant. This report shall be signed by a responsible official upon submittal.
- 4.5.3. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR 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 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.
- 4.5.4. Any violation(s) of the flare design and operation criteria in Section 4.1.2 shall be reported in writing to the Director as soon as practicable, but within ten (10) calendar days.

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.

Signature¹ _____ Date _____
(please use blue ink) Responsible Official or Authorized Representative

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

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.