West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

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Cabinet Secretary

Class II General Permit
G70-C

for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Natural Gas Production Facilities Located at the Well Site

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation.

William F. Durham
Director

Issued: June 1, 2016

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.

General Permit G70-C authorizes the construction, modification, administrative update and/or operation of natural gas production facilities. The applicability of General Permit G70-C may include any of the following: gas wells and associated equipment, natural gas-fired spark ignition internal combustion engines, diesel-fired compression ignition internal combustion engines, storage vessels/tanks, glycol dehydration units and associated equipment, equipment leaks, truck loading/unloading operations, and pneumatic controllers.

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1.0. Emission Units

1.1. General Permit Registration

1.1.1. The registered facility shall not exceed the following facility-wide regulated pollutant emission limits. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of 45CSR30-2.26.b or for eligibility of this General Permit.

Pollutant	Maximum Annual Emission Limit (tons/year)
Nitrogen Oxides	50
Carbon Monoxide	80
Volatile Organic Compounds	80
Particulate Matter – 10/2.5	20
Sulfur Dioxide	20

1.1.2. The registered facility shall not exceed 8 tons per year for each individual Hazardous Air Pollutant (HAP) or 20 tons per year of aggregated HAPs.

1.1.3. The registrant shall notify the Secretary, in writing, no later than fifteen (15) calendar days after the actual startup of any alternative operating scenario or combination of alternative operating scenarios. Alternative operating scenarios are listed below:

a. Increases in condensate/produced water tank throughputs that result in total facility emissions pursuant to sections 1.1.1 and 1.1.2 of this general permit.
b. Increases in truck loading throughputs or change in truck certification established in section 14.1.2 that result in total facility emissions below sections 1.1.1 and 1.1.2 of this general permit. Only one (1) truck loading certification change allowed per calendar year.
c. Air pollution control device and emission reduction device additions, removals and replacements that result in total facility emissions below sections 1.1.1 and 1.1.2 of this general permit.
d. Replacement of like kind air emission units.
e. Addition of air emission units (excluding engines identified in sections 1.1.3.f and 1.1.3.g) that results in total facility emissions below sections 1.1.1 and 1.1.2 of this general permit.
f. Replacement of engines that result in an emissions increase/decrease below 45CSR13 permitting thresholds and possess an EPA Certificate of Conformity to show compliance with 40CFR60 Subparts IIII and/or JJJJ.
g. Replacement of engines that result in an emissions increase or decrease below 45CSR13 permitting thresholds and are not subject to performance testing requirements under 40CFR60 Subparts IIII and/or JJJJ.
h. Replacement of engines that previously conducted a performance test under 40CFR60 Subparts IIII and/or JJJJ with a smaller engine (less HP) subject to performance testing requirements under 40CFR60 Subparts IIII and/or JJJJ.
i. Removal of low pressure towers/stabilization equipment subject to Section 6.1.4 that result in total facility emissions below sections 1.1.1 and 1.1.2 of this general permit.

Alternative operating scenarios are done at the registrant's own risk.

1.1.4. **G70-C Annual Certification.** Annually from the date of G70-C registration issuance (or alternate date requested by the registrant and established in the G70-C Registration), the registrant shall prepare and submit a G70-C Annual Certification for the previous year, addressing the potential emissions from the facility (using a generally accepted model or calculation methodology) and an updated Emission Units/ERD/APCD table *(if necessary)*. The registrant shall pay an annual $1,000 certification fee. The fee shall be paid by negotiable instrument made payable to the "DEP-Division of Air Quality."

1.1.5. *Minor Source.* The registrant shall maintain records of annual HAP and all other regulated air pollutant emissions using AP-42 emission factors, GRI-GLYCalc model inputs and outputs, flashing simulation model inputs and outputs, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that facility-wide emissions are less than those specified in Sections 1.1.1 and 1.1.2. To demonstrate compliance with sections 1.1.1 and 1.1.2 of this general permit, the registrant shall maintain a record of the emissions on a rolling twelve (12) month total.

2.0. General Conditions

2.1. Purpose

The purpose of this Class II General Permit is to authorize the construction, modification, administrative update, relocation, and operation of eligible natural gas production facilities located at the well site through a Class II General Permit Registration process. The requirements, provisions, standards and conditions of this Class II General Permit address the prevention and control of regulated pollutants from the operation of a natural gas production facility located at the well site.

2.2. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.2.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation.*

2.3. Applicability

2.3.1. All natural gas production facilities located at the well site designed and operated for the purpose of producing natural gas and included in the following NAICS and/or SIC codes are eligible for General Permit registration except for those instances listed in (a) through (h) below:

NAICS Code	SIC Code	Description
211111	1311	Crude Petroleum and Natural Gas Extraction
213112	1382, 1389	Support Activities for Oil and Gas Operations

a. Any natural gas production facility which is a major source of pollutants as defined in 45CSR14, 45CSR19 or 45CSR30.
b. Any natural gas production facility that is located in Putnam County, Kanawha County, Cabell County, Wayne County, or Wood County and is required by 45CSR21 to conduct a Reasonably Available Control Technology (RACT) Analysis and/or subject to 45CSR21 Section 29 (Leaks from Natural Gas/Gasoline Processing Equipment).
c. Any natural gas processing plant (e.g. production of ethane, propane, butane, and pentane) as defined in 40 CFR §60.5430.
d. Any natural gas sweetening plant.
e. Any natural gas production facility with a storage tank subject to NSPS, Subpart Kb.
f. Any steam generating unit (as defined in §60.41c) subject to NSPS, Subpart Dc (> 10 MMBTU/hr).
g. Any turbine subject to NSPS, Subpart KKKK.

h. Any natural gas production facility which will require an individual air quality permit review process (45CSR13 construction/modification permit) to incorporate regulatory requirement(s) other than those established by General Permit G70-C. This would include "synthetic minor" permitting actions, as they are required to undergo Notice Level C under 45CSR13 Section 8.5. "Synthetic minor" permitting actions would include limitations on physical or operational capacity to remain below major stationary source thresholds (including 45CSR14, 45CSR19, 45CSR30 and 45CSR34).

2.3.2. For the purposes of General Permit G70-C, *gas well* means an onshore well drilled principally for production of natural gas. *Well completion* means the process that allows for the flowback of petroleum or natural gas from newly drilled wells to expel drilling and reservoir fluids and tests the reservoir flow characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

2.3.3. For the purposes of General Permit G70-C, *natural gas production facility activities* refers to natural gas well completion operations; separation of the condensate, natural gas and water in gas production units; additional separation of the natural gas, condensate, and water emulsion in heater treaters; compression of the natural gas; dehydration of the natural gas; storage of the condensate and produced water; and, loading of tanker trucks to transport condensate and produced water from the facility.

2.3.4. The West Virginia Division of Air Quality reserves the right to reopen this permit or any authorization issued under this permit if the area in which the facility is located is federally designated as non-attainment for specified pollutants. If subsequently any proposed construction, modification and/or operation does not demonstrate eligibility and/or compliance with the requirements, provisions, standards and conditions of this General Permit, this General Permit registration shall be denied and an individual permit for the proposed activity shall be required.

2.4. Definitions

2.4.1. 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.

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

2.4.3. "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.

2.4.4. The terms established in applicable definitions codified in the Code of Federal Regulations including 40 CFR Part 60 NSPS Subparts A, IIII, JJJJ, and OOOO or 40 CFR Part 63 MACT Subparts A, HH and ZZZZ shall also apply to those sections of General Permit G70-C where these subparts are incorporated or otherwise addressed.

2.5. Acronyms

BBL or bbl	Barrel
CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R.	Code of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HP	Horsepower
lb/hr	Pounds per hour
LDAR	Leak Detection and Repair
M or m	Thousand
MACT	Maximum Achievable Control Technology
MDHI	Maximum Design Heat Input
MM or mm	Million
MMBTU/hr	Million British Thermal Units Per Hour
MMCF/hr	Million Cubic Feet per Hour
N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
LAT	Latitude
LON	Longitude
NO_x	Nitrogen Oxides
NSCR	Non Selective Catalytic Reduction
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 10 µm in diameter
ppm	Parts per million
ppm_v	Parts per million by Volume
PSD	Prevention of Significant Deterioration
psi	Pounds per square inch
RICE	Reciprocating Internal Combustion Engine
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per year
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds
VRU	Vapor Recovery Unit

2.6. Permit Expiration and Renewal

2.6.1. This Class II General 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.

2.6.2. General Permit registrations granted by the Secretary shall remain valid, continuous and in effect unless suspended or revoked by the Secretary. If the Class II General Permit registration is subject to action or change, existing registrations will continue to be authorized and subject to the previously established permit conditions. **[45CSR§13-10.2, 45CSR§13-10.3]**

2.7. Administrative Update to General Permit Registration

2.7.1. The registrant may request an administrative update to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-4. **[45CSR§13-4.]**

2.8. Modification to General Permit Registration

2.8.1. The registrant may request a minor permit modification to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-5. **[45CSR§13-5.]**

2.8.2. Any changes to the facility listed as an Alternative Operating Scenario under section 1.1.3 of this general permit are not subject to modification requirements specified in 45CSR§13-5 if the registrant complies with the applicable requirements in section 1.1.3.

2.9. Duty to Comply

2.9.1. The registered facility shall be constructed and operated in accordance with the information filed in the General Permit Registration Application, alternative operating scenario notifications per section 1.1.3 of this general permit, any amendments thereto or facility changes that do not meet the definition of modification as defined in 45CSR13. The Secretary may suspend or revoke a General Permit registration if the plans and specifications upon which the approval was based are not adhered to.

2.9.2. The registrant must comply with all applicable conditions of this Class II General Permit. Any General Permit noncompliance constitutes a violation of the West Virginia Code, and/or the Clean Air Act, and is grounds for enforcement action by the Secretary or USEPA.

2.9.3. Violation of any of the applicable requirements, provisions, standards or conditions contained in this Class II General Permit, or incorporated herein by reference, may subject the registrant 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.

2.9.4. Registration under this Class II General Permit does not relieve the registrant 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.

2.10. Inspection and Entry

2.10.1. The registrant 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 enter upon the registrant'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 Class II General 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 this Class II General Permit;

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.

2.11. Need to Halt or Reduce Activity not a Defense

2.11.1. It shall not be a defense for a registrant in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Class II General 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.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this Class II General 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. In any enforcement proceeding, the registrant seeking to establish the occurrence of an emergency has the burden of proof.

2.12.3. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Federally-Enforceable Requirements

2.13.1. All terms and conditions in this permit are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

2.13.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-Enforceable" requirements upon SIP approval by the USEPA.

2.14. Duty to Provide Information

2.14.1. The registrant shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this Class II General Permit Registration or to determine compliance with this General Permit. Upon request, the registrant shall also furnish to the Secretary copies of records required to be kept by the registrant. For information claimed to be confidential, the registrant 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 registrant shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.15. Duty to Supplement and Correct Information

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

2.16. Credible Evidence

2.16.1. Nothing in this Class II General 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 defenses otherwise available to the registrant including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

2.17. Severability

2.17.1. The provisions of this Class II General Permit are severable. If any provision of this Class II General Permit, or the application of any provision of this Class II General Permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining Class II General Permit terms and conditions or their application to other circumstances shall remain in full force and effect.

2.18. Property Rights

2.18.1. Registration under this Class II General Permit does not convey any property rights of any sort or any exclusive privilege.

2.19. Notification Requirements

2.19.1. The registrant shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit except as required under section 1.1.3 (e.g. 15 days after alternative operating scenario startup).

2.20. Suspension of Activities

2.20.1. In the event the registrant should deem it necessary to suspend, for a period in excess of one (1) year, all operations authorized by this permit, the registrant shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the one (1) year of the suspension period.

2.21. Transferability

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

3.0. Facility-Wide Requirements

3.1. Siting Criteria

3.1.1. All persons submitting a Class II General Permit Registration Application to construct, modify or relocate a natural gas production facility shall be subject to the following siting criteria:

a. No emission unit shall be constructed, located or relocated within 300 feet of any occupied dwelling, business, public building, school, church, community building, institutional building or public park. An owner of an occupied dwelling or business may elect to waive the 300 foot siting criteria.

b. Any person proposing to construct, modify or relocate any emission unit(s) within 300 feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park may elect to obtain an individual permit pursuant to 45CSR13.

3.2. Limitations and Standards

3.2.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.2.2. **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 or allow 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.]

3.2.3. **Asbestos.** The registrant 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 registrant, 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 registrant is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). USEPA, the Division of Water and Waste Management (DWWM), and the Department of Health and Human Resources (DHHR) – Office of Environmental Health Services (OEHS) require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.2.4. **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]***

3.2.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one, twelve (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. *This requirement does not apply to emergency generator(s) permitted to operate only 500 hours per year.*
[45CSR§13-10.5.]

3.2.6. **Standby plan for reducing emissions.** When requested by the Secretary, the registrant 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.]

3.2.7. **Minimization of Fugitive Emissions.** The registrant shall operate consistent with information provided in registrant's G70-C General Permit Registration Application for fugitive emission sources.
[45CSR§13-5.11.]

3.3. Monitoring Requirements

See Section 4.2.

3.4. Testing Requirements

3.4.1. **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 registrant shall conduct test(s) to determine compliance with the emission limitations set forth in this Class II General Permit and/or established or set forth in underlying documents. The Secretary, or their duly authorized representative, may at his/her option witness or conduct such test(s). Should the Secretary exercise his/her 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 Class II General 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 require, approve or specify additional testing or alternative testing to the test methods specified in the Class II General 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 3.4.1.a. of this general 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 Class II General Permit shall be conducted in accordance with an approved test protocol. 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 registrant 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 registrant 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 and any operating parameters required to be monitored. The report shall include the following: the certification described in paragraph 3.6.1; 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]

3.5. Recordkeeping Requirements

3.5.1. **Retention of records.** The registrant 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. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Said records shall be maintained on site or in a readily accessible off-site location maintained by the registrant for a period of five (5) years. Said records shall be readily available to the Secretary of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Secretary shall be certified by a responsible official. Where appropriate, the registrant may maintain records electronically.

3.5.2. **Odors.** For the purposes of 45CSR4, the registrant 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.*]**

3.6. Reporting Requirements

3.6.1. **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.

3.6.2. **Confidential information.** A registrant 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.

3.6.3. **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, e-mailed 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 SE
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

3.6.4. **Emission inventory.** At such time(s) as the Secretary may designate, the registrant 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 DAQ. 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.

3.6.5. **Operating Fee**

3.6.5.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the registrant 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.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. *Operation and Maintenance of Air Pollution Control Equipment and Emission Reduction Devices.* The registrant shall, to the extent practicable, install, maintain, and operate all pollution control equipment and emission reduction devices listed in the issued General Permit Registration and associated monitoring equipment to comply with limits set forth in this General Permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR§13-5.11.]**

4.1.2. *Applicability of State and Federal Regulations.* The registrant is subject to the provisions of the following State Rules and Federal Regulations, to the extent applicable based on its registration:

a. 45CSR2 - Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
b. 45CSR6 - To Prevent and Control Air Pollution from the Combustion of Refuse
c. 45CSR10 - To Prevent and Control Air Pollution from the Emissions of Sulfur Oxides
d. 45CSR13 - Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation
e. 45CSR16 - Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
f. 45CSR22 - Air Quality Management Fee Program
g. 40CFR60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
h. 40CFR60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
i. 40CFR60 Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution
j. 40CFR63 Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities
k. 40CFR63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines

4.1.3. The registrant shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to minimize any fugitive escape of regulated air pollutants (leak). Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for fugitive emissions of regulated air pollutants shall be repaired or replaced as needed.

4.1.4. The registrant shall monitor and maintain quarterly records (calendar year) for each facility component that was inspected for fugitive escape of regulated air pollutants. Each component of a closed vent system shall operate with no detectable emissions, as determined using audio-visual-olfactory (AVO) inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging (OGI) camera (ex. FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If registrant uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If registrant uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

If any leak is detected, the registrant shall repair the leak as soon as possible. The first attempt at repair must be made within five (5) calendar days of discovering the leak, and the final repair must be made within fifteen (15) calendar days of discovering the leak. The registrant shall record each leak detected and the associated repair. The leak will not be considered repaired until the same monitoring method or a more detailed instrument determines the leak is repaired.

Delay of repair of a closed vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if you determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. You must complete repair of such equipment by the end of the next shutdown. **[45CSR§13-5.11.]**

4.2. Recordkeeping Requirements

4.2.1. *Monitoring information.* The registrant 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.

4.2.2. *Record of Maintenance of Air Pollution Control Equipment and Emission Reduction Devices.* For all pollution control equipment and emission reduction devices listed in the General Permit Registration, the registrant shall maintain accurate records of all required pollution control equipment and emission reduction devices inspection and/or preventative maintenance procedures specifically required in this General Permit.

4.2.3. *Record of Malfunctions of Air Pollution Control Equipment and Emission Reduction Devices.* For all air pollution control equipment and emission reduction devices listed in the General Permit Registration, the registrant shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment and emission reduction devices during which excess emissions above the applicable permit limit 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.

5.0. Source-Specific Requirements [Gas Well Affected Facility]

5.1. Limitations and Standards

5.1.1. The registrant of each gas well affected facility shall also comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO.

5.1.2. *Completion Combustion Devices/Temporary Flares/Incinerators.* These devices are subject to the applicable requirements specified in 45CSR6.

6.0. Source-Specific Requirements [Storage Vessels Containing Condensate and/or Produced Water]

6.1. Limitations and Standards

6.1.1. *Emissions determination.* The registrant shall determine the VOC emissions for each storage vessel (as defined in § 60.5430) to determine affected facility status (commenced construction, modification or reconstruction after August 23, 2011) in accordance with the *emissions determination* required in 40CFR60 Subpart OOOO.

6.1.2. *Control Devices.* The registrant shall install, operate, and maintain all control devices listed in the G70-C General Permit Registration for the purpose of controlling emissions from the storage vessels in accordance with what was recorded with the registrant's General Permit Registration Application.

1. *Control Devices that are not subject to the control device requirements of NSPS, Subpart OOOO.* If the registrant has determined per section 6.1.1 of this general permit that the storage vessel(s) are not subject to control requirements of 40CFR60 Subpart OOOO, the registrant shall choose whether they want to be subject to the control device and closed vent system requirements of section 7.0 or section 8.0 of this general permit.

2. *Control Devices that are subject to the control device requirements of NSPS, Subpart OOOO.*
   i. If the registrant has determined per section 6.1.1 of this general permit that the storage vessel(s) are subject to control requirements of 40CFR60 Subpart OOOO, the registrant shall be subject to the control device and closed vent system requirements of section 7.0 of this general permit.

   ii. The registered enclosed combustion device, flare or incinerator is subject to 45CSR6. The registrant is subject to the applicable requirements specified in 45CSR6.

6.1.3. *Site specific sample. (Only for storage vessels with no air pollution control devices or VRUs)*

1. *Applicability.* The requirements of this section apply to storage vessels that meet the requirements of paragraphs (a) and (b).

   a. Any storage vessel that contains condensate and/or produced water.

   b. Any storage vessel that is not subject to the control device requirements of section 6.1.2 of this general permit.

   c. Any storage vessel that has an upstream low pressure tower/stabilization equipment that meets the requirements of section 6.1.4 of this general permit is exempt from the requirements of this section.

2. For registrants that meet the applicability requirements of paragraph (1) of this section, the registrant shall use a site specific sample to determine potential emissions. The registrant shall comply with the following:

   i. The site specific sample shall be taken within thirty (30) days after startup of production.

   ii. The type and location of the sample shall be appropriate for the calculation methodology or model (e.g. ProMax, E&P Tanks, HYSYS) being used to calculate the emissions. The sample location shall be equipped with appropriate sampling access.

   iii. If the VOC potential emissions are higher than the emission limits in the registration, DAQ shall be notified in accordance with section 6.4.2.

      a. The registrant shall re-evaluate the VOC potential emissions based on the site specific sample within 90 days of receiving the analysis of the site specific sample determined per section 6.1.1 of this general permit.

6.1.4. *Low Pressure Towers/Stabilization Equipment.* If the registrant calculated their VOC flash emissions for their General Permit Registration Application based on operating conditions using a low pressure tower/stabilization equipment upstream of the storage vessels, the registrant shall provide notification requirements listed in section 6.4.1 to DAQ in accordance with sections 1.1.3 and 1.1.4 of this general permit if the low pressure tower/stabilization equipment is removed from service. If the vents from the storage vessels storing liquids from the low pressure tower/stabilization equipment are uncontrolled, then the low pressure tower operating pressure shall not exceed the value used to determine the VOC flash emissions.

For the purposes of General Permit G70-C, *stabilization equipment* refers to equipment, skids, or combinations thereof forming additional processes that involve heat, pressure reduction and separation, or by other means, are designed to stabilize condensate products in order to minimize tank flash and limit Reid Vapor Pressure.

6.2. Monitoring Requirements

6.2.1. *Flash emissions.*

1. The requirements of this section apply to storage vessels that meet the requirements of paragraphs (a) and (b) of this section.

   a. Any storage vessel that contains condensate and/or produced water.

   b. Any storage vessel that is not subject to the control device requirements of 6.1.2.

   c. Any storage vessel that has a VRU system that is designed and operated in accordance with section 8.1.7 of this general permit is exempt from the requirements of this section.

2. The registrant shall monitor and maintain quarterly records of the temperature and pressure upstream of any storage vessel containing condensate and/or produced water at the appropriate separation unit based on the calculation methodology or model being used by the registrant to calculate their VOC flash emissions.

6.2.2. Uncontrolled production storage vessels that are fed by a gas to liquid separator shall perform the following:

1. Inspect and maintain records of the separator liquid level that opens the dump valve on an as needed basis and annually (at a minimum).

2. Inspect and maintain records of the separator dump valves operation per manufacturer recommendations or annually (at a minimum).

6.3. Recordkeeping Requirements

6.3.1. To demonstrate compliance with section 1.1.1 - 1.1.3 of this general permit, the registrant shall maintain a record of the aggregate throughput for the storage vessel(s) that contain condensate and/or produced water on a monthly and rolling twelve (12) month total. Alternatively, recording the monthly and rolling twelve (12) month total of condensate and/or produced water loaded into tanker trucks from the storage vessels according to section 14.2.1 can be used to demonstrate compliance. Said records shall be maintained in accordance with section 3.5.1 of this general permit.

6.3.2. To demonstrate compliance with section 6.1.1 of this general permit, the registrant shall maintain records of the determination of the VOC emission rate per storage vessel, including identification of the model or calculation methodology used to calculate the VOC emission rate.

6.3.3. To demonstrate compliance with section 6.1.3 of this general permit, the registrant shall maintain records of the type of sample taken, the location of the sample within the process, the temperature at the location and time where the sample was taken, the pressure at the location and time that the sample was taken, the analysis of the sample, and the resulting emissions calculations using the site specific sample.

6.4. Notification and Reporting Requirements

6.4.1. To demonstrate compliance with requirement 6.1.4 of this general permit, the registrant shall notify the Director of the DAQ in writing when a low pressure tower/stabilization equipment that meets the conditions of 6.1.4 of this general permit is removed from service. The notification shall:

i. Include revised flash emission calculations for any storage vessel with emission limits in the registration based on a site specific sample in accordance with 6.1.3 of this general permit to demonstrate that the emission limits will not be exceeded as a result of the change in operating conditions;

ii. Include the date that the low pressure tower/stabilization equipment was (or will be) removed from service;

6.4.2. The registrant shall notify the Director of the DAQ in writing for any instance when the potential emissions determined with a site specific sample in accordance with section 6.1.3 of this general permit were greater than the potential emissions provided in the G70-C general permit application. Any increase in emissions must follow the notification requirements in section 1.1.3 of this general permit. Additional notification is required if the change in emissions affects applicability determination to NSPS, Subpart OOOO for any storage vessel. The notification to the Director shall be provided no later than 30 days from the date of discovery of the NSPS, Subpart OOOO applicability change.

7.0. Source-Specific Requirements [Standards of Performance for Storage Vessel Affected Facilities (NSPS, Subpart OOOO)]

7.1. Limitations and Standards

7.1.1. The registrant of each storage vessel affected facility (commenced construction, modification or reconstruction after August 23, 2011) shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO, unless they have installed a VRU or have Federally Enforceable Controls to limit each storage vessel(s) potential to emit below 6 tons per year of Volatile Organic Compounds.

8.0. Source-Specific Requirements [Control Devices and Emission Reduction Devices not subject to NSPS Subpart OOOO and/or NESHAP Subpart HH]

8.1. Limitations and Standards

Scope: The scope of this section is to address requirements for control devices and emission reduction devices that will be installed and operated to control air emissions at a natural gas production facility and that are not subject to NSPS, Subpart OOOO or NESHAP, Subpart HH requirements. If the control device is subject to NSPS, Subpart OOOO control device and closed system requirements, they are subject to Section 7.0.

Possible control and emission reduction devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tanker truck loading operations; (2) control devices used to control VOC and HAP emissions from the storage vessel(s) below the NSPS, Subpart OOOO threshold of 6 tpy VOC. Control devices that are permitted under a legally and practically enforceable state permit achieve a "federally enforceable PTE" for VOC emissions at the storage vessels; and (3) control devices used to control VOC and HAP emissions from dehydration units.

8.1.1. *Operation and Maintenance of Air Pollution Control Equipment and Emission Reduction Devices.* The registrant shall, to the extent practicable, install, maintain, and operate all air pollution control equipment and emission reduction devices listed in the General Permit Registration 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.]

8.1.2. *Enclosed Combustion Devices and Flares.* The registrant shall comply with the requirements in this section for any registered enclosed combustion device or flare that is listed as a control device in the General Permit Registration:

1. The registrant may use the same control device to control emissions from multiple emission sources (ex. storage vessels, loading racks, etc.) where the control device is both subject to and not subject to NSPS, Subpart OOOO requirements depending on the emission source being controlled and if the control device was designed accordingly. If the registrant uses the control device for multiple source types, they shall comply with the more stringent NSPS, Subpart OOOO closed vent system and control device requirements for the entire system and shall comply with the applicable NSPS, Subpart OOOO closed vent system and control requirements for storage vessels provided in section 8.0 of this general permit.

2. *Flares.* If the registrant utilizes a flare control device, the registrant shall comply with the design and operating requirements below:

   i. Vapors that are being controlled by the flare shall be routed to the flare at all times.

   ii. Flares shall be operated with a flame present at all times, as determined by the methods specified in section 8.2.1 of this general permit;

   iii. Flares shall be designed according to the requirements specified in § 60.18;

   iv. Flares shall be operated at all times when emissions are vented to them;

   v. To ensure compliance with 8.1.2.2 (iv) of this general permit, the registrant shall monitor in accordance with section 8.2.1 of this general permit.

   vi. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in permit section 8.3.1 of this general permit except for periods not to exceed a total of 5 minutes during any 2 consecutive hours; and,

   vii. The registrant shall monitor the flare(s) to ensure that they are operated and maintained in conformance with their designs.

   The registrant may claim a capture and control efficiency of 98% for those units meeting the requirements of 2.i-vii.

3. *Enclosed Combustion Devices.* If the registrant utilizes an enclosed combustion control device, the registrant shall comply with the design and operating requirements below:

   i. Vapors that are being controlled by the enclosed combustion device shall be routed to the enclosed combustion device at all times.

   ii. The enclosed combustion device shall be operated with a flame present at all times, as determined by the methods specified in sections 8.2.1 and 8.2.3 of this general permit.

   iii. Enclosed combustion devices shall be designed for and operated with no visible emissions as determined by the methods specified in section 8.3.1 of this general permit except for either (a) or (b):

      a. periods not to exceed a total of one minute during any 15 minute period, determined on a monthly basis; or

      b. 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).

   iv. Enclosed combustion devices shall be operated at all times when emissions are vented to them.

   v. To ensure compliance with 8.1.2.3(iv) above, the registrant shall monitor in accordance with section 8.2.3 of this general permit.

   vi. The registrant shall operate and maintain the enclosed combustion device according to the manufacturer's specifications for operating and maintenance requirements to maintain the guaranteed control efficiency listed in the General Permit Registration.

The registrant may claim a capture and control efficiency of 98% for those units meeting the requirements of 3.i-vi.

4. *Closed Vent System.* The registrant shall comply with the closed vent system requirements in section 8.1.4.

5. *Maximum Design Heat Input.* The total maximum design heat input for all registered flares or enclosed combustion devices shall not exceed a Maximum Design Heat Input of 36 MMBTU/hr.

6. The registered enclosed combustion device or flare is subject to the applicable requirements specified in 45CSR6.

8.1.3. *Cover Requirements.* The registrant shall comply with the cover requirements in this section if the potential emissions that were calculated to determine affected facility status did include recovered vapors from the storage vessel as allowed and in accordance with 6.1.2 of this general permit.

1. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.

2. Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:

   (i) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);

   (ii) To inspect or sample the material in the unit;

   (iii) To inspect, maintain, repair, or replace equipment located inside the unit; or

   (iv) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of this general permit to a control device or to a process.

3. Each storage vessel thief hatch shall be weighted and properly seated. You must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.
[45CSR§13-5.11.]

8.1.4. *Closed Vent Systems (applies to all non 40CFR60 Subpart OOOO controls).* The registrant shall comply with the closed vent system requirements in this section if the potential emissions that were calculated to determine affected facility status did include recovered vapors from the storage vessel as allowed and in accordance with 6.1.2 of this general permit.

1. You must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements of 6.1.2 of this general permit or to a process. The registrant shall perform an initial LDAR evaluation within thirty (30) days of start-up and follow the procedures in section 4.1.4 for ongoing compliance.

2. You must design and operate a closed vent system with no detectable emissions, as determined using audio-visual-olfactory (AVO) inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging

(OGI) camera (e.g.. FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If registrant uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If registrant uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

3. You must meet the requirements specified in (1) and (2) of this section if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device or to a process.

   i. Except as provided in paragraph (2) of this section, you must comply with either paragraph (A) or (B) of this section for each bypass device.

      A. You must properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere.

      B. You must secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.

   ii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section.

[45CSR§13-5.11.]

8.1.5. *Carbon Adsorption Systems.* The registrant shall comply with the requirements below for any registered carbon adsorption system that is listed as a control device in the General Permit Registration:

i. The carbon adsorption system shall be designed to achieve the minimum guaranteed control efficiency that is listed in the General Permit Registration for volatile organic compound (VOC) emissions;

ii. The carbon adsorption system must be operated at all times when gases, vapors, and fumes are vented to it. Carbon canisters shall be operated in series as dual carbon canisters, in case of emission breakthrough in one carbon canister.

iii. The carbon adsorption system must have a commercially manufactured saturation indicator installed.

iv. Prior to the loading of each truck, the saturation indicator on the carbon adsorption system shall be checked to ensure that the carbon is not spent. These records must be kept in accordance with section 3.5.1 of this general permit. If the saturation indicator demonstrates that the carbon is saturated, truck loading is prohibited and/or emissions are to cease.

v. All carbon in the carbon canister shall be replaced with fresh carbon or the carbon canister replaced with a new canister when the saturation indicator changes in color and indicates saturation.

vi. Fresh replacements for all carbon being used in the carbon adsorption system shall be kept on site.

The registrant may claim a control efficiency of 95% for those units meeting the requirements of 8.1.5.i-vi.

8.1.6. *Condensers/BTEX Eliminators.* The registrant shall comply with the requirements below for any registered condenser/BTEX Eliminator that is listed as a control device/emission reduction device for a glycol dehydration unit in the General Permit Registration:

i. Vapors that are being controlled by the condenser/BTEX Eliminator shall be routed through a closed vent system to the condenser/BTEX Eliminator at all times when there is a potential that vapors (emissions) can be generated from the glycol dehydration still column.

ii. The condenser/BTEX Eliminator shall be designed, operated, and maintained according to good engineering practices and manufacturer's specifications so as to achieve, at a minimum, a capture and control efficiency of 50%.

a. The registrant may claim a capture and control efficiency greater than 50% if the General Permit Registration was approved based on manufacturer's specifications and the unit was operated as such.

8.1.7. *Vapor Recovery Units (VRUs)*

i. The registrant shall comply with the closed vent system requirements in Section 8.1.4 of this general permit.

ii. The registrant may claim a capture and control efficiency of 95% *(which accounts for 5% expected downtime).*

iii. The registrant may claim a capture and control efficiency of 98% if the VRU has a backup flare (enclosed combustion device) that meet the requirements of section 8.1.2 of this general permit.

iv. The registrant may claim a capture and control efficiency of 98% if the VRU has a backup VRU.

8.1.8. *Glycol Dehydration Units Recycling Back to Flame Zone of the Reboiler.* If the registrant is reducing emissions by recycling the glycol dehydration unit back to the flame zone of the reboiler, it shall be designed and operated in accordance with the following:

a. The vapors/overheads from the still column shall be routed through a condenser at all times when there is a potential that vapors (emissions) can be generated from the still column.

b. The reboiler shall only be fired with vapors from the still column and flash tank, and natural gas may be used as a supplemental fuel.

c. The vapors/overheads from the still column shall be introduced into the flame zone of the reboiler as the primary fuel or with the primary fuel before the combustion chamber.

The registrant may claim a capture and control efficiency of 50% for those units meeting the requirements of either a or b. The registrant may claim a capture and control efficiency greater than 50% if the General Permit Registration was approved based on manufacturer's specifications and the unit was operated as such.

8.2. Monitoring Requirements

8.2.1. To demonstrate compliance with the pilot flame requirements of sections 8.1.2.2 and 8.1.2.3 of this general permit, 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.

8.2.2. To demonstrate compliance with the closed vent system requirements of section 8.1.4 of this general permit, the registrant shall:

a. *Initial requirements.* Conduct an initial AVO inspection or those methods listed in section 4.1.4 of this general permit for defects that could result in air emissions within thirty (30) days of start-up. 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.

i. The initial inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.

ii. In the event that a leak or defect is detected, you 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. Delay of repair of a closed vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if you determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. You must complete repair of such equipment by the end of the next shutdown.

b. *Continuous requirements.* The registrant shall monitor and maintain quarterly records for each component that was inspected for fugitive escape of regulated air pollutants. Each component shall operate with no detectable emissions, as determined using AVO inspections, USEPA 40CFR60 Method 21, USEPA alternative work practice to detect leaks from equipment using optical gas imaging (OGI) camera (ex. FLIR camera), or some combination thereof. AVO inspections shall include, but not limited to, defects as visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If registrant uses USEPA Method 21, then no detectable emissions is defined as less than 500 ppm in accordance with Method 21. If registrant uses an OGI camera, then no detectable emissions is defined as no visible leaks detected in accordance with USEPA alternative OGI work practices.

If any leak is detected, the registrant shall repair the leak as soon as possible. The first attempt at repair must be made within five (5) days of discovering the leak, and the final repair must be made within fifteen (15) days of discovering the leak. The registrant shall record each leak detected and the associated repair. The leak will not be considered repaired until the same monitoring method that detected the leak determines the leak is repaired.

The registrant shall maintain records of all quarterly monitoring for fugitive escape of regulated air pollutants.

c. *Bypass inspection.* Visually inspect the bypass valve during the initial inspection for the presence of the car seal or lock-and-key type configuration to verify that the valve is maintained in the non-diverting position to ensure that the vent stream is not diverted through the bypass device. If an alternative method is used, conduct the inspection of the bypass as described in the operating procedures.

d. *Unsafe to inspect requirements.* You may designate any parts of the closed vent system as unsafe to inspect if the requirements in paragraphs (i) and (ii) of this section are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.

i. You determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the requirements.

ii. You have a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

[45CSR§13-5.11.]

8.2.3. To demonstrate compliance with the pilot flame requirements of sections 8.1.2.3 of this general permit, the registrant shall follow (i) and (ii).

i. 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.

ii. 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.

iii. The registrant is exempt from the pilot flame requirements of permit condition 8.2.3.i and 8.2.3.ii if the registrant installed an enclosed combustion device model that was tested under § 60.5413(d) which meets the criteria in § 60.5413(d)(11).

8.3. Testing Requirements

8.3.1. To demonstrate compliance with the visible emissions requirements of section 8.1.2.2, 8.1.2.3, and 8.1.2.6 of this general permit, the registrant shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

i. 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:

a. a minimum of 2 hours if demonstrating compliance with 8.1.2.2;
b. a minimum of 15 minutes if demonstrating compliance with 8.1.2.3(iii)(a); or
c. a minimum of 1 hour if demonstrating compliance with 8.1.2.3 (iii)(b)

ii. 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.

iii. If during this visible emission check or at any other time visible emissions are observed, compliance with section 8.1.2.6 of this general permit shall be determined by conducting opacity tests in accordance with Method 9 or 40 CFR 60, Appendix A.

8.3.2. A flare that is designed and operated in accordance with §60.18(b) shall not require a compliance demonstration, unless at the request of the Secretary, but must conduct visible emission check.

8.3.3. *Enclosed combustion devices or flares.* 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]**

8.4. Recordkeeping Requirements

8.4.1. For the purpose of demonstrating compliance with the design requirements in section 8.1.2.2 of this permit, the registrant shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations.

8.4.2. For the purpose of demonstrating compliance with the continuous pilot flame requirements in sections 8.1.2.2 and 8.1.2.3 of this general permit, the registrant 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.

i. If the registrant is demonstrating compliance to 8.2.3 of this general permit with visual inspections, the registrant shall maintain records of the inspections.

ii. If the registrant is demonstrating compliance to 8.2.3 of this general permit 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.

8.4.3. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the registrant shall maintain records of the visible emission opacity tests and checks. The registrant shall maintain records of all monitoring data required by section 8.3.1 of this general permit 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 registrant 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.

8.4.4. To demonstrate compliance with section 8.1.2.3.vi of this general permit, the registrant shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency.

8.4.5. To demonstrate compliance with the closed vent monitoring requirements in section 8.2.2 of this general permit, records shall be maintained of:

i. The initial compliance requirements;

ii. Each AVO inspection, Method 21, infrared camera or some combination thereof conducted to demonstrate continuous compliance, including records of any repairs that were made as a result of the inspection;

iii. If you are subject to the bypass requirements, the following records shall also be maintained:

(a) Each inspection or each time the key is checked out or a record of each time the alarm is sounded;

(b) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.

iv. Any part of the system that has been designated as "unsafe to inspect" in accordance with 8.2.2(d).

[45CSR§13-5.11.]

8.4.6. To demonstrate compliance with section 8.1.5 of this general permit, records shall be kept on each carbon canister to indicate the date when the activated carbon was replaced and the date of all indicator checks.

8.4.7. The registrant shall maintain records of any testing that is conducted according to section 8.3 of this general permit.

8.4.8. All records required under Section 8.4 shall be maintained on site or in a readily accessible off-site location maintained by the registrant for a period of five (5) years. Said records shall be readily available to the Director of the DAQ or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

8.4.9. To demonstrate compliance with section 8.1.2.5 of this general permit, the registrant shall record the volume of gas flared on a monthly basis.

8.5. Reporting Requirements

8.5.1. 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) of this general permit 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.

8.5.2. 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.

8.5.3. 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.

9.0. Source-Specific Requirements [Small Heaters and Reboilers not subject to 40CFR60 Subpart Dc]

9.1. Limitations and Standards

9.1.1. *Maximum Design Heat Input.* The maximum design heat input for any small heater and/or reboiler shall be less than 10 MMBTU/hr.

9.1.2. 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.]**

9.2. Monitoring Requirements

9.2.1. At such reasonable times as the Secretary may designate, the registrant shall conduct Method 9 emission observations for the purpose of demonstrating compliance with section 9.1.2 of this general permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

9.3 Testing Requirements

9.3.1. Upon request by the Secretary, compliance with the visible emission requirements of section 9.1.2 of this general permit 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 Secretary. The Secretary 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 9.1.2 of this general permit. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control. **[45CSR§2-3.2.]**

9.4. Recordkeeping Requirements

9.4.1. The registrant shall maintain records of all monitoring data required by section 9.2.1 of this general permit 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 registrant 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.

10.0. Source-Specific Requirements [Pneumatic Controllers Affected Facility (NSPS, Subpart OOOO)]

10.1. Limitations and Standards

10.1.1. The registrant of each pneumatic controller affected facility shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO.

11.0. Source-Specific Requirements [Centrifugal Compressor Affected Facility (NSPS, Subpart OOOO)]

11.1. Limitations and Standards

11.1.1. The registrant of each centrifugal compressor affected facility shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO.

12.0. Source-Specific Requirements [Reciprocating Compressor Affected Facility (NSPS, Subpart OOOO)]

12.1. Limitations and Standards

12.1.1. The registrant of each reciprocating compressor affected facility shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart OOOO.

13.0. Source-Specific Requirements [Reciprocating Internal Combustion Engine(s) (RICE), Generators, Microturbine Generators]

13.1. Limitations and Standards

13.1.1. The applicable RICE(s) and/or generator(s) shall be operated and maintained as follows:

a. In accordance with the manufacturer's recommendations and specifications or in accordance with a site specific maintenance plan; and,
b. In a manner consistent with good operating practices.

13.1.2. Requirements for Use of Catalytic Reduction Devices

a. Rich-burn natural gas-fired compressor engine(s) equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the emission limit listed in the General Permit Registration for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 2%.

b. Lean-burn natural gas compressor engine(s) equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the emission limit listed in the General Permit Registration for any engine/SCR combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm_v.

c. Lean-burn natural gas compressor engine(s) equipped with oxidation catalyst air pollution control devices shall be fitted with a closed-loop automatic air/fuel ratio feedback controller to ensure emissions of regulated pollutants do not exceed the emission limit listed in the General Permit Registration for any engine/oxidation catalyst combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a lean-rich mixture.

d. For natural gas compressor engine(s), the registrant shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the registrant shall also check for thermal deactivation of the catalyst before normal operations are resumed.

e. The registrant shall follow a written operation and maintenance plan that provides the periodic and annual maintenance requirements.

13.1.3. The registrant shall comply with all applicable NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

13.1.4. Periods of start-up and shut-down shall not exceed 30 minutes per occurrence. The registrant shall operate the engine in a manner consistent with good air pollution control practices for minimizing emissions at all times, including periods of start-up and shut-down. The registrant

shall comply with all applicable start-up and shut-down requirements in accordance with 40 CFR Part 60, Subparts IIII, JJJJ and 40 CFR Part 63, Subpart ZZZZ.

13.1.6. For the purposes of General Permit G70-C, *emergency generator* means a generator whose purpose is to allow key systems to continue to operate without interruption during times of utility power outages.

13.2. Monitoring Requirements

13.2.1. Catalytic Reduction Devices

a. The registrant shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The registrant shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.

2. Following the catalyst manufacturer emissions related operating and maintenance recommendations, or develop, implement, or follow a site-specific maintenance plan.

13.3. Recordkeeping Requirements

13.3.1. To demonstrate compliance with general permit section 13.1.2, the registrant shall maintain records of the maintenance performed on each RICE and/or generator.

13.3.2. To demonstrate compliance with general permit sections 13.2.1, the registrant shall maintain a copy of the site specific maintenance plan or manufacturer maintenance plan.

13.3.3. The registrant shall comply with all applicable recordkeeping requirements under NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

13.3.4. All records required by this section shall be maintained in accordance with section 3.5.1 of this general permit.

13.4. Testing Requirements

13.4.1. The registrant shall comply with all applicable testing requirements under NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

13.4.2. To demonstrate compliance with general permit section 13.1.2(a), the registrant shall verify that the closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 2% during any performance testing.

13.5. Reporting Requirements

13.5.1. The registrant shall comply with all applicable notification requirements under NSPS for Stationary Compression Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart IIII, Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 60, Subpart JJJJ, and/or the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Spark Ignition Internal Combustion Engines specified in 40 CFR Part 63, Subpart ZZZZ.

14.0. Source-Specific Requirements [Tanker Truck Loading]

14.1. Limitations and Standards

14.1.1. *Control Devices and VRUs.* The registrant shall install, operate, and maintain all control devices and/or VRU(s) in accordance with the applicable requirements of section 8.0 of this general permit.

14.1.2. The following applicable capture efficiencies are required:

a. For tanker trucks and/or rail cars not passing one of the annual leak tests in 14.1.2(b) or (c) and has vapor return – 70%
b. For tanker trucks and/or rail cars passing the NSPS level annual leak test – 98.7%.
c. For tanker trucks and/or rail cars passing the MACT level annual leak test – 99.2%

Compliance with this requirement shall be demonstrated by keeping records of the applicable MACT or NSPS Annual Leak Test certification for every truck and railcar loaded/unloaded. This requirement can be satisfied if the trucking/railcar company provided certification that all tanker trucks/rail cars servicing the location are compliant. This certification must be submitted with the G70-C Annual Certification.

14.2. Recordkeeping Requirements

14.2.1. The registrant shall maintain monthly and annual records that include the total quantity of material loaded into tanker trucks. The annual records shall be calculated on a twelve (12) month rolling total.

14.2.2. For the purpose of demonstrating compliance with section 14.1.2, the registrant shall maintain records of the MACT and/or NSPS Annual Leak Tests of all trucks/rail cars loaded at the facility. This requirement can be satisfied if the trucking/rail car company provided certification all tanker trucks/rail cars servicing the location was compliant. This certification must be submitted in writing to the Director of the DAQ.

15.0 Source-Specific Requirements [Glycol Dehydration Units]

15.1. Limitations and Standards

15.1.1. The registrant of each glycol dehydration unit subject to 40 CFR Part 63, Subpart HH shall comply with the applicable requirements specified in 40 CFR Part 63, Subpart HH.

15.1.2. *Emission Calculations.*

a. For purposes of determining potential HAP emissions, the methods specified in 40 CFR 63, Subpart HH shall be used.

b. Any source that has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months. **[40CFR§63.760(c)]**

c. For the purposes of determining actual annual average natural gas throughput or actual average benzene emissions, the methods specified in § 63.772(b) of 40 CFR 63, Subpart HH shall be used if the registrant is exempt from § 63.764(d).

15.1.3. *Control Devices and Emission Reduction Devices.* The registrant shall comply with all applicable control device and emission reduction device requirements provided in section 8.0 of this general permit for any control device and emission reduction device used to control emissions from the dehydration unit and that is listed in the G70-C General Permit Registration. Compliance will be demonstrated according to the requirements listed in Section 8.0 of this general permit.

15.1.4. *Maximum Glycol Recirculation Rate.* The maximum glycol recirculation rate shall not exceed the gallons per minute limit listed in the registrant's G70-C general permit application. Compliance with the Maximum Glycol Recirculation Limitation 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.

15.2. Monitoring Requirements

15.2.1. The registrant shall monitor the throughput of dry natural gas from the dehydration system on a quarterly basis for each glycol dehydration unit at the facility.

15.2.2. Representative gas sample collection and analysis frequency for dehydration units shall be determined as set forth in the schedule provided in Table 15.2.2 of this section.

Table 15.2.2

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.

15.2.3. To demonstrate compliance with area source status and the benzene exemption in 15.1.2.c, the following parameters shall be measured at a minimum frequency of once per quarter, with the exception of natural gas flowrate annual daily average, natural gas flowrate maximum design capacity and wet gas composition, in order to define annual average values or, if monitoring is not practical, some parameters may be assigned default values as listed below.

a. Natural Gas Flowrate
   i. Operating hours per quarter
   ii. Quarterly throughput (MMscf/quarter)
   iii. Annual daily average (MMscf/day), and
   iv. Maximum design capacity (MMscf/day)
b. Absorber temperature and pressure
c. Lean glycol circulation rate
d. Glycol pump type and maximum design capacity (gpm)
e. Flash tank temperature and pressure, if applicable
f. Stripping Gas flow rate, if applicable
g. Wet gas composition (upstream of the absorber – dehydration column) sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc™ Technical Reference User Manual and Handbook V4
h. Wet gas water content (lbs H_2O/MMscf)
i. Dry gas water content (lbs H_2O/MMscf) at a point directly after exiting the dehydration column and before any additional separation points

The following operating parameter(s) may be assigned default values when using GRI-GLYCalc:

a. Dry gas water content can be assumed to be equivalent to pipeline quality at 7 lb H_2O / MMscf
b. Wet gas water content can be assumed to be saturated
c. Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI
d. Lean glycol circulation rate may be estimated using the TEG recirculation ratio of 3 gal TEG / lb H_2O removed.

Note: If you are measuring and using actual wet or dry gas water content, then you should also measure the glycol circulation rate rather than using the default TEG recirculation ratio.
[45CSR§13-5.11, §63.772(b)(2)(i)]

15.3. Testing Requirements

15.3.1. The registrant 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 registrant 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.

15.4. Recordkeeping Requirements

15.4.1. The registrant shall maintain records of the monthly dry natural gas throughput through the glycol dehydration unit(s), all monitoring data, wet gas sampling, and GRI-GLYCalc™ emission estimates. Said records shall be maintained in accordance with section 3.5.1 of this general permit.

15.5. Reporting Requirements

15.5.1. The registrant shall submit the wet gas analysis report required by section 15.2 of this general permit within 60 days of conducting the sampling of the wet gas stream as required. This report shall include a potential to emit (PTE) estimate using GRI-GlyCalc Version 3.0 or higher, incorporating the specific parameters measured, as well as a copy of the laboratory analysis.

15.5.2. If the results of the compliance determination conducted as required in Section 15.2 of this general permit predict the emissions to be at or above 0.95 tons per year of benzene, the registrant shall submit such determination and all supporting documentation to the Secretary within 15 days after making such determination.

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.