

*West Virginia Department of Environmental Protection*

*Earl Ray Tomblin  
Governor*

*Division of Air Quality*

*Randy C. Huffman  
Cabinet Secretary*

# Permit to Construct



**R13-3132**

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

Issued to:  
**Gastar Exploration USA, Inc.**  
**Yoho Pad**  
**103-00073**

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*John A. Benedict  
Director*

*Issued: Draft • Effective: Draft*

Facility Location: New Martinsville, Wetzel County, West Virginia  
Mailing Address: 1331 Lamar, Suite 650  
Houston, TX 77010  
Facility Description: Well Production Support Equipment  
NAICS Codes: 211111  
UTM Coordinates: 514.882 km Easting • 4,383.341 km Northing • Zone 17  
Permit Type: Construction  
Descrip. of Change: Permit for construction and operation of a natural gas production facility at the Yoho well-pad

*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.*

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*The source is not subject to 45CSR30.*

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### 1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
GPU	1E	GPU Unit with Burner	2013	0.75 mmBtu/hr	N
TK1	2E	Condensate Storage Tank	2013	22,000 Gallons	1C
TK2	2E	Produced Water Storage Tank	2013	22,000 Gallons	1C
TL1	3E	Condensate Truck Loading	2013	536,550 gal/yr (TL1&TL2)	SUB
TL2	4E	Produced Water Truck Loading	2013	--	SUB
1C	2E	Vapor Combustor	2013	N/A	N/A

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## 2.0. General Conditions

### 2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

### 2.2. Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CBI</b>	Confidential Business Information	<b>NSPS</b>	New Source Performance Standards
<b>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>2.5</sub></b>	Particulate Matter less than 2.5µm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>CO</b>	Carbon Monoxide	<b>Ppb</b>	Pounds per Batch
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>pph</b>	Pounds per Hour
<b>DAQ</b>	Division of Air Quality	<b>ppm</b>	Parts per Million
<b>DEP</b>	Department of Environmental Protection	<b>Ppmv or ppmv</b>	Parts per million by volume
<b>dscm</b>	Dry Standard Cubic Meter	<b>PSD</b>	Prevention of Significant Deterioration
<b>FOIA</b>	Freedom of Information Act	<b>psi</b>	Pounds per Square Inch
<b>HAP</b>	Hazardous Air Pollutant	<b>SIC</b>	Standard Industrial Classification
<b>HON</b>	Hazardous Organic NESHAP	<b>SIP</b>	State Implementation Plan
<b>HP</b>	Horsepower	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>lbs/hr</b>	Pounds per Hour	<b>TAP</b>	Toxic Air Pollutant
<b>LDAR</b>	Leak Detection and Repair	<b>TPY</b>	Tons per Year
<b>M</b>	Thousand	<b>TRS</b>	Total Reduced Sulfur
<b>MACT</b>	Maximum Achievable Control Technology	<b>TSP</b>	Total Suspended Particulate
<b>MDHI</b>	Maximum Design Heat Input	<b>USEPA</b>	United States Environmental Protection Agency
<b>MM</b>	Million	<b>UTM</b>	Universal Transverse Mercator
<b>MMBtu/hr or mmbtu/hr</b>	Million British Thermal Units per Hour	<b>VEE</b>	Visual Emissions Evaluation
<b>MMCF/hr or mmcf/hr</b>	Million Cubic Feet per Hour	<b>VOC</b>	Volatile Organic Compounds
<b>NA</b>	Not Applicable	<b>VOL</b>	Volatile Organic Liquids
<b>NAAQS</b>	National Ambient Air Quality Standards		
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants		

### **2.3. 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:

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

### **2.4. Term and Renewal**

- 2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

### **2.5. Duty to Comply**

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3132 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;  
**[45CSR§§13-5.11 and 13-10.3]**

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

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

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

### **2.6. Duty to Provide Information**

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

## **2.7. Duty to Supplement and Correct Information**

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

## **2.8. Administrative Update**

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-4]

## **2.9. Permit Modification**

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.

[45CSR§13-5.4.]

## **2.10. Major Permit Modification**

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.

[45CSR§13-5.1]

## **2.11. Inspection and Entry**

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

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

## **2.12. Emergency**

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission

limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,
  - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

### **2.13. Need to Halt or Reduce Activity Not a Defense**

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

### **2.14. Suspension of Activities**

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

### **2.15. Property Rights**

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

### **2.16. Severability**

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

**2.17. Transferability**

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

**2.18. Notification Requirements**

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

**2.19. Credible Evidence**

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

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### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.  
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.  
[45CSR§11-5.2.]

#### 3.2. Monitoring Requirements

*[Reserved]*

#### 3.3. Testing Requirements

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

this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
  1. The permit or rule evaluated, with the citation number and language;
  2. The result of the test for each permit or rule condition; and,
  3. A statement of compliance or noncompliance with each permit or rule condition.

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

### 3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  
[45CSR§4. *State-Enforceable only.*]

### 3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57th Street, SE  
Charleston, WV 25304-2345

**If to the USEPA:**

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

- 3.5.4. **Operating Fee.**

- 3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
- 3.5.4.2. In accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for Certificate to Operate (CTO). The CTO will cover the time period beginning with the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the CTO application.
- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

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#### 4.0. Source-Specific Requirements

##### 4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility. In accordance with the information filed in Permit Application R13-3132, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, and shall use the specified control devices.

4.1.2. The GPU Heater shall operate according to the following requirements:

- a. The maximum emissions from the GPU Heater shall not exceed the limits given in the following table;

**Table 4.1.2(a): Process Heater Emission Limits**

	NO <sub>x</sub>		CO	
	lb/hr	tpy	lb/hr	tpy
GPU	0.10	0.44	0.08	0.37

- b. The MDHI of the GPU Heater (GPU) shall not exceed 0.75 mmBtu/hr, and shall only be fired by natural gas; and
- c. As the annual emission limits given in Table 4.1.2(a) are based on operating 8,760 hours/year, there is no limit on the annual hours of operation or fuel usage of the Line Heaters;
- d. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.  
[45CSR§2-3.1.]

4.1.3. The maximum aggregate production of condensate/liquids from the wells shall not exceed 536,500 gallons/year.

4.1.4. All condensate/liquids trucks shall be loaded using the submerged-fill method.

4.1.5. Emissions from the facility shall not exceed the following:

Source	CO		NO <sub>x</sub>		PM <sup>(1)</sup>		SO <sub>2</sub>		VOCs		HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
GPU Heater	0.08	0.37	0.10	0.44	0.01	0.04	0.01	0.01	0.01	0.03	-----	-----
Tanks + Combustor	0.17	0.73	0.20	0.87	0.02	0.07	0.01	0.01	0.85	3.73	0.03	0.13
Truck Loading	--	--	--	--	--	--	--	--	19.15	0.64	0.68	0.02
<b>Facility-Wide Totals →</b>	<b>0.25</b>	<b>1.10</b>	<b>0.30</b>	<b>1.31</b>	<b>0.03</b>	<b>0.11</b>	<b>0.02</b>	<b>0.02</b>	<b>20.01</b>	<b>4.40</b>	<b>0.71</b>	<b>0.15</b>

(1) Conservatively, all particulate matter emissions are assumed to be less than 2.5 microns. Includes condensables.

4.1.6. The permittee shall not exceed the number and type of components (valves, pump seals, connectors, etc.) in gas/vapor or light liquid (as applicable) listed in Attachment N of Permit Application R13-3132.

4.1.7. The Company 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 prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be replaced.

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

[45CSR§13-5.11.]

## 4.2. Monitoring Requirements

4.2.1. For the purposes of demonstrating compliance with maximum limit for the aggregate production of condensate/liquids from the wells set forth in 4.1.3, the permittee shall monitor and record the monthly and rolling twelve month total of condensate/liquids (in gallons) produced in the wells. Monitoring and recording the monthly and rolling twelve month total of condensate/liquids (in gallons) unloaded from the storage tanks can be used to show compliance with this requirement.

4.2.2. For the purposes of demonstrating compliance with visible emissions limitations set forth in 4.1.2(d), the permittee shall:

- a. Conduct an initial Method 22 visual emission observation on the GPU heater to determine the compliance with the visible emission provisions. The permittee shall take a minimum of two (2) hours of visual emissions observations on the line heaters.

- b. Conduct monthly Method 22 visible emission observations of the GPU heater stack to ensure proper operation for a minimum of ten (10) minutes each month the line heaters are in operation.
  - c. In the event visible emissions are observed in excess of the limitations given under 4.1.2(d), the permittee shall take immediate corrective action.
- 4.2.3. The permittee shall maintain records of all visual emission observations pursuant to the monitoring required under 4.2.2. including any corrective action taken.
- 4.2.4. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

### 4.3. Testing Requirements

- 4.3.1. Within sixty (60) days of the issuance date of this permit, the permittee shall perform, or have performed, an analysis to determine the constituent properties of the condensate. The analysis shall, at a minimum, include the same components as the analysis used to calculate storage tank emissions in Permit Application R13-3132. The sample shall be taken from the pressurized liquid stream, aqueous and organic, coming from the last separator that feeds the storage tanks. Where applicable, if the analysis shows average constituent properties that, when used to calculate emissions in the same manner as submitted in Permit Application R13-3132, result in emissions that are greater than the limits in 4.1.4, the permittee shall, within thirty (30) days of receiving the results of the analysis, submit to the Director an appropriate permit application to increase emissions.

### 4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.4. The permittee shall maintain records of all visual emission observations pursuant to the monitoring required under 4.2.2 including any corrective action taken.

#### 4.5. **Reporting Requirements**

*[Reserved]*

## 5.0. Source-Specific Requirements (Vapor Combustor, 1C)

### 5.1. Limitations and Standards

- 5.1.1. *Operation and Maintenance of Air Pollution Control Equipment.* The permittee shall, to the extent practicable, install, maintain, and operate the vapor combustor (1C) 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.]**
- 5.1.2. The permittee shall install a vapor combustor (1C) to control VOC and HAP emissions from the storage tanks (TK1-TK2). This vapor combustor shall be designed to achieve a minimum guaranteed control efficiency of 98% for volatile organic compound (VOC) emissions.
- 5.1.3. The maximum quantity of condensate that shall be loaded shall not exceed 536,500 gallons per year. Compliance with this limit shall be demonstrated using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 5.1.4. The vapor combustor (1C) shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- 5.1.5. The vapor combustor (1C) shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.
- 5.1.6. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- 5.1.7. The vapor combustor (1C) is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

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

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

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

- ii. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
**[45CSR6 §4.3]**
- iii. The provisions of paragraph (i) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
**[45CSR6 §4.4]**

- iv. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.  
**[45CSR6 §4.5]**
  - v. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR6 §4.6]**
  - vi. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. **[45CSR6 §8.2]**
- 5.1.8. To demonstrate compliance with Section 5.1.9, the quantity of waste gas that shall be consumed in the vapor combustor (1C) shall not exceed 917 cubic feet per hour. Compliance with the gas throughput limit shall be demonstrated using a rolling 12-month total.
- 5.1.9. Maximum emissions from the vapor combustor (1C) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	0.85	3.73
Nitrogen Oxides	0.20	0.87
Carbon Monoxide	0.17	0.73
Particulate Matter-10	0.02	0.07

## 5.2. Monitoring Requirements

- 5.2.1. The permittee shall operate the vapor combustor (1C) with no visible emissions and have a constant pilot flame at all times that waste gas is directed to it. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with manufacturer's specifications.
- 5.2.2. The permittee shall monitor the throughput to the vapor combustor (1C) on a monthly basis.
- 5.2.3. To demonstrate compliance with the flame requirements of sections 5.1.5 and 5.1.6, the presence of a flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

## 5.3. Testing Requirements

- 5.3.1. The permittee shall conduct a Method 22 opacity test on the vapor combustor (1C) for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. 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 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
- 5.3.2. At such reasonable times as the Secretary may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent U.S. EPA approved method approved by the Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option, witness or conduct such stack tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.  
[45CSR6 §7.1]
- 5.3.3. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above.  
[45CSR6 §7.2]

#### 5.4. Recordkeeping Requirements

- 5.4.1. For the purpose of demonstrating compliance with section 5.2.1, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.
- 5.4.2. For the purpose of demonstrating compliance with section 5.3.1, the permittee shall maintain records of the visible emission opacity tests.
- 5.4.3. For the purpose of demonstrating compliance with sections 5.1.3, the permittee shall maintain records of the amount of condensate production and the volumes loaded into tank trucks. The permittee shall calculate the monthly throughput to the vapor combustor (1C) by ratio of the recorded condensate, produced water and tank truck loading volumes against the process modeling and throughput information within the plans and specifications filed in Permit Application R13-3132.
- 5.4.4. All records required under Section 5.4 shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director 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 Director shall be certified by a responsible official.
- 5.4.5. *Record of Maintenance of Air Pollution Control Equipment.* The permittee shall maintain accurate records of the vapor combustor (1C) equipment inspection and/or preventative maintenance procedures.
- 5.4.6. *Record of Malfunctions of Air Pollution Control Equipment.* The permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the vapor combustor (1C)

during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

## **5.5. Reporting Requirements**

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

## **6.0. Source-Specific Requirements (40CFR60 Subpart OOOO Requirements, Pneumatic Controllers)**

## 6.1. Limitations and Standards

### 6.1.1. What standards apply to pneumatic controller affected facilities?

For each pneumatic controller affected facility you must comply with the VOC standards, based on natural gas as a surrogate for VOC, in paragraph (c) of this section, as applicable. Pneumatic controllers meeting the conditions in paragraph (a) of this section are exempt from this requirement.

(a) The requirements of paragraph (b) or (c) of this section are not required if you determine that the use of a pneumatic controller affected facility with a bleed rate greater than 6 standard cubic feet per hour is required based on functional needs, including but not limited to response time, safety and positive actuation.

(c) (1) Each pneumatic controller affected facility constructed, modified or reconstructed on or after October 15, 2013 at a location between the wellhead and a natural gas processing plant must have a bleed rate less than or equal to 6 standard cubic feet per hour.

(2) Each pneumatic controller affected facility at a location between the wellhead and a natural gas processing plant must be tagged with the month and year of installation, reconstruction or modification, and identification information that allows traceability to the records for that controller as required in § 60.5420(c)(4)(iii).

(d) You must demonstrate initial compliance with standards that apply to pneumatic controller affected facilities as required by § 60.5410.

(e) You must demonstrate continuous compliance with standards that apply to pneumatic controller affected facilities as required by § 60.5415.

(f) You must perform the required notification, recordkeeping, and reporting as required by § 60.5420, except that you are not required to submit the notifications specified in § 60.5420(a).

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**[40CFR§60.5390, Pneumatic Controllers]**

## 6.2. Initial Compliance Demonstration

### 6.2.1. To achieve initial compliance with emission standards for your pneumatic controller affected facility you comply with the requirements specified below.

1. If applicable, you have demonstrated by maintaining records as specified in §60.5420(c)(4)(ii) of your determination that the use of a pneumatic controller affected facility with a bleed rate greater than 6 standard cubic feet of gas per hour is required as specified in §60.5390(a).
2. You own or operate a pneumatic controller affected facility located between the wellhead and a natural gas processing plant and the manufacturer's design specifications indicate that the controller emits less than or equal to 6 standard cubic feet of gas per hour.
3. You must tag each new pneumatic controller affected facility according to the requirements of § 60.5390(b)(2).
4. You must include the information in paragraph (d)(1) of this section and a listing of the pneumatic controller affected facilities specified in paragraphs (d)(2) and (3) of this

section in the initial annual report submitted for your pneumatic controller affected facilities constructed, modified or reconstructed during the period covered by the annual report according to the requirements of § 60.5420(b).

5. You must maintain the records as specified in § 60.5420(c)(4) for each pneumatic controller affected facility.

**[40CFR§60.5410, Pneumatic Controllers]**

### **6.3. Continuous Compliance Demonstration**

- 6.3.1. For each pneumatic controller affected facility, you must demonstrate continuous compliance according to paragraphs (1) through (3) of this section.

1. You must continuously operate the pneumatic controllers as required in § 60.5390(a), (b), or (c).
2. You must submit the annual report as required in § 60.5420(b).
3. You must maintain records as required in § 60.5420(c)(4).

**[40CFR§60.5415(d), Pneumatic Controllers]**

### **6.4. Notification, Recordkeeping and Reporting Requirements**

- 6.4.1. You must submit the notifications required in § 60.7(a)(1) and (4), and according to paragraphs (a)(1) and (2) of this section, if you own or operate one or more of the affected facilities specified in § 60.5365 that was constructed, modified, or reconstructed during the reporting period.

- 6.4.2. Reporting requirements. You must submit annual reports containing the information specified in paragraphs (b)(1) through (6) of this section to the Administrator and performance test reports as specified in paragraph (b)(7) of this section. The initial annual report is due 30 days after the end of the initial compliance period as determined according to § 60.5410. Subsequent annual reports are due on the same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (6) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.

1. The general information specified in paragraphs (b)(1)(i) through (iv) of this section.
  - i. The company name and address of the affected facility.
  - ii. An identification of each affected facility being included in the annual report.
  - iii. Beginning and ending dates of the reporting period.
  - iv. A certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

2. *Reserved*
3. *Reserved.*
4. *Reserved.*
5. For each pneumatic controller affected facility, the information specified in paragraphs (b)(5)(i) through (v) of this section.
  - i. An identification of each pneumatic controller constructed, modified or reconstructed during the reporting period, including the identification information specified in §60.5390(c)(2).
  - ii. If applicable, documentation that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than 6 standard cubic feet per hour are required and the reasons why.
  - iii. Records of deviations specified in paragraph (c)(4)(v) of this section that occurred during the reporting period.
6. *Reserved*
7.
  - i. Within 60 days after the date of completing each performance test (see §60.8 of this part) as required by this subpart you must submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.
  - ii. All reports required by this subpart not subject to the requirements in paragraph (a)(2)(I) of this section must be sent to the Administrator at the appropriate address listed in §63.13 of this part. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as

Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (a)(2)(i) and (ii) of this section in paper format.

**[40CFR§60.5420(b)]**

6.4.3. Recordkeeping requirements. You must maintain the records identified as specified in § 60.7(f) and as specified below. All records must be maintained for at least 5 years.

1. For each pneumatic controller affected facility, you must maintain the records identified in paragraphs (c)(4)(i) through (v) of this section.

i. Records of the date, location and manufacturer specifications for each pneumatic controller constructed, modified or reconstructed.

ii. Records of the demonstration that the use of pneumatic controller affected facilities with a natural gas bleed rate greater than 6 standard cubic feet per hour are required and the reasons why.

iii. If the pneumatic controller is not located at a natural gas processing plant, records of the manufacturer's specifications indicating that the controller is designed such that natural gas bleed rate is less than or equal to 6 standard cubic feet per hour.

iv. If the pneumatic controller is located at a natural gas processing plant, records of the documentation that the natural gas bleed rate is zero.

v. Records of deviations in cases where the pneumatic controller was not operated in compliance with the requirements specified in § 60.5390.

**[40CFR§60.5420]**

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**7.0. Source-Specific Requirements [Control Devices not subject to NSPS, Subpart OOOO]**

**7.1. Limitations and Standards**

*Scope: The scope of this section is to address requirements for control devices that will be installed and operated to control air emissions at the natural gas production facility and that are not subject to NSPS, Subpart OOOO requirements*

*Possible control devices meeting the scope of this section include: (1) control devices used to control VOC and HAP emissions from the tank truck loading operations; (2) control devices used to control VOC and HAP emissions from the storage tank(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 tanks; and (3) control devices used to control VOC and HAP emissions from dehydration units.*

7.1.1. *Operation and Maintenance of Air Pollution Control Equipment.* The applicant shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in the Permit 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.]**

7.1.2. *Enclosed Combustion Devices and Flares.* The applicant 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 Permit :

1. The applicant 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 applicant 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 tanks provided in section 12.0 of this permit.

2. *Flares.* If the applicant utilizes a flare control device, the applicant 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 7.2.1 of this permit;
- iii. Flares shall be designed according to the requirements specified in § 60.18;
- iv. Flares shall be operated at all times when emissions may be vented to them;
- v. To ensure compliance with 7.1.2.2 (iv) above, the applicant shall monitor in accordance with section 7.2.1 of this permit.
- vi. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in permit section 7.3.1 except for periods not to exceed a total of 5 minutes during any 2 consecutive hours;

- vii. The applicant shall monitor the flare(s) to ensure that they are operated and maintained in conformance with their designs;
3. *Enclosed Combustion Devices.* If the applicant utilizes an enclosed combustion control device, the applicant 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 section 7.2.3 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 permit section 7.3.1 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 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 may be vented to them.
- v. To ensure compliance with 7.1.2.3(iv) above, the applicant shall monitor in accordance with section 7.2.3 of this permit.
- vi. The applicant 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 .
4. *Closed Vent System.* The applicant shall comply with the closed vent system requirements in section 7.1.3.
5. *Maximum Design Heat Input.* The maximum design heat input for any registered flare or enclosed combustion device listed in the Permit shall not exceed the Maximum Design Heat Input (MMBtu/hr) recorded with the applicant's Permit .
6. The registered enclosed combustion device or flare is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:
- i. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is either 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr or 2.72 for an incinerator with a capacity of 15,000

lbs/hr or greater.

**[45CSR6 §4.1]**

- ii. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
**[45CSR6 §4.3]**
- iii. The provisions of paragraph (i) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
**[45CSR6 §4.4]**
- iv. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.  
**[45CSR6 §4.5]**
- v. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.  
**[45CSR6 §4.6]**
- vi. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.  
**[45CSR6 §8.2]**

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7.1.3. *Closed Vent Systems.* The applicant shall meet the requirements below for any closed vent system that is required by 7.1.2.4 of this permit.

- i. The closed vent system shall be designed and operated: (a) with no detectable emissions as determined using olfactory, visual, and auditory inspections; and (b) to route all gases, vapors, and fumes emitted from the system to the control device specified in the applicant's Permit in order to achieve the control efficiency listed in the applicant's Permit ; or (c) route all gases, vapors, and fumes emitted from the system to a process.
- ii. If a bypass line exists, the applicant shall either: (a) secure the bypass valve with a car-seal or a lock-and-key type configuration in the non-diverting position to prevent inadvertent bypass; or (b) 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.
- iii. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to requirement (ii).

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

- i. The carbon adsorption system shall be designed to achieve the minimum guaranteed control efficiency that is listed in the Permit 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. If the saturation indicator demonstrates that the carbon is saturated, truck loading is prohibited.
- v. All carbon in the carbon canister shall be replaced with fresh carbon or replace the carbon canister when the saturation indicator changes in color and indicates saturation.
- vi. The applicant shall possess on site, fresh replacements for all carbon being used in the carbon adsorption system.

7.1.5. *Condensers.* The applicant shall comply with the requirements below for any registered condenser that is listed as a control device for a glycol dehydration unit in the Permit :

- i. Vapors that are being controlled by the condenser shall be routed through a closed vent system to the condenser at all times when there is a potential that vapors (emissions) can be generated from the glycol dehydration still column.
- ii. The condenser shall be designed, operated, and maintained according to good engineering practices or manufacturer's recommendations so as to achieve, at a minimum, the control rate stated in the permit .

## 7.2. Monitoring Requirements

- 7.2.1. To demonstrate compliance with the pilot flame requirements of sections 7.1.2.2 of this 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.
- 7.2.2. To demonstrate compliance with the closed vent system requirements of section 7.1.3 of this general permit, the applicant shall:
  - a. *Initial requirements.* Conduct an initial visual, olfactory, and auditory inspection for defects that could result in air emissions within 180 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 annual 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.* Conduct an annual visual, olfactory, and auditory inspection for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.
    - i. The annual inspection shall be conducted within 365 calendar days from the date of the previous inspection or earlier.
    - ii. The annual inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.
  - c. *Bypass inspection.* Visually inspect the bypass valve during the initial and annual 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.
  - e. *Difficult to inspect requirements.* You may designate any parts of the closed vent system as difficult to inspect, if the requirements in paragraphs (i) and (ii) of this section are met. Difficult to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.
    - i. You determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface.
    - ii. You have a written plan that requires inspection of the equipment at least once every 5 years.
- 7.2.3. To demonstrate compliance with the pilot flame requirements of sections 7.1.2.3 of this general permit, the applicant shall follow (i) and (ii), or (iii):
- i. At a minimum frequency of once per calendar month, conduct visual inspections to confirm that the pilot is lit when vapors are being routed to the enclosed combustion device and that the continuous burning pilot flame is operating properly.

- 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. As an alternative, the applicant may meet the monitoring requirements of 7.2.1.
- iv. The applicant is exempt from the pilot flame requirements of paragraphs (i) and (ii) of this section if the applicant installed an enclosed combustion device model that was tested under § 60.5413(d) which meets the criteria in § 60.5413(d)(11).

### 7.3. Testing Requirements

- 7.3.1. To demonstrate compliance with the visible emissions requirements of section 7.1.2.2, 7.1.2.3, and 7.1.2.6 of this permit, the applicant 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 7.1.2.2;
    - b. a minimum of 15 minutes if demonstrating compliance with 7.1.2.3(iii)(a); or
    - c. a minimum of 1 hour if demonstrating compliance with 7.1.2.3 (iii)(b)
  - ii. The visible emission check shall be conducted initially within 180 days of start-up to demonstrate compliance.
  - iii. If during this visible emission check or at any other time visible emissions are observed, compliance with section 7.1.2.6 shall be determined by conducting opacity tests in accordance with Method 9 or 40 CFR 60, Appendix A.
- 7.3.2. A control device that is certified through a performance test conducted by the manufacturer and operated in accordance with the parameter ranges covered under the performance test shall not require additional testing, unless at the request of the Director.
- 7.3.3. A flare that is designed and operated in accordance with §60.18(b) shall not require performance testing, unless at the request of the Director.
- 7.3.4. *Reserved.*
- 7.3.5. *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 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]**

#### **7.4. Recordkeeping Requirements**

- 7.4.1. For the purpose of demonstrating compliance with the design requirements in section 7.1.2.2 of this permit, the applicant 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.
- 7.4.2. For the purpose of demonstrating compliance with the continuous pilot flame requirements in sections 7.1.2.2 and 7.1.2.3, the applicant shall maintain records of the times and duration of all periods when the pilot flame was not present and that vapors were vented to the device.
- i. If the applicant is demonstrating compliance to 7.2.3 with visual inspections, the applicant shall maintain records of the inspections.
  - ii. If the applicant is demonstrating compliance to 7.2.3 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.
- 7.4.3. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the applicant shall maintain records of the visible emission opacity tests and checks. The applicant shall maintain records of all monitoring data required by section 7.3.1 of this 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 applicant 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.
- 7.4.4. To demonstrate compliance with section 7.1.2.3.vi of this permit, the applicant shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency.
- 7.4.5. To demonstrate compliance with the closed vent monitoring requirements in section 7.2.2 of this permit, records shall be maintained of:
- i. The initial compliance requirements;
  - ii. Each annual visual inspection 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 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 7.2.2(d) or “difficult to inspect” in accordance with 7.2.2(e) .
- 7.4.6. To demonstrate compliance with section 7.1.4 of this 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.
- 7.4.7. *Reserved.*
- 7.4.8. To demonstrate compliance with section 7.2.3(iv) of this permit, the applicant shall maintain a record of the performance test results conducted by the manufacturer.
- 7.4.9. The applicant shall maintain records of any testing that is conducted according to section 7.3.5 of this permit.
- 7.4.10. All records required under Section 7.4 shall be maintained on site or in a readily accessible off-site location maintained by the applicant for a period of five (5) years. Said records shall be readily available to the Director 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 Director shall be certified by a responsible official.
- 7.4.11. *Record of Maintenance of Air Pollution Control Equipment.* For all registered air pollution control equipment listed in Section 1.0 of the G70-A Permit , the applicant shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
- 7.4.12. *Record of Malfunctions of Air Pollution Control Equipment.* For all registered air pollution control equipment listed in Section 1.0 of the G70-A Permit , the applicant shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
  - a. The equipment involved.
  - b. Steps taken to minimize emissions during the event.
  - c. The duration of the event.
  - d. The estimated increase in emissions during the event.For each such case associated with an equipment malfunction, the additional information shall also be recorded:
  - e. The cause of the malfunction.
  - f. Steps taken to correct the malfunction.

- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

## **7.5. Reporting Requirements**

- 7.5.1. 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 7.3.1(iii) of this permit must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
- 7.5.2. Any bypass event of the registered control device must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the 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.
- 7.5.3. *Reserved.*
- 7.5.4. Any time the air pollution control device is not operating when emissions are vented to it, shall be reported in writing to the Direction of the Division of Air Quality as soon as practicable, but within ten (10) calendar days of the discovery.

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**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<sup>1</sup>  
(please use blue ink) Responsible Official or Authorized Representative Date  
Name and Title  
(please print or type) Name Title  
Telephone No. Fax No.

<sup>1</sup>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 USEPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.