

West Virginia Department of Environmental Protection  
Division of Air Quality



# Title V Operating Permit Revision

Jim Justice  
Governor

Austin Caperton  
Cabinet Secretary

## For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

**Permit Action Number:** MM01 SIC: 2819  
**Name of Permittee:** MarkWest Liberty Midstream & Resources LLC  
**Facility Name/Location:** Mobley Gas Plant  
**County:** Wetzel  
**Facility Address:** 14624 North Fork Road, Smithfield, WV 26437

**Description of Permit Revision:** This modification is to correct a heater size, correct naming, add generators, correct fugitive component counts, add rod packing and crankcase emissions, update emissions to the flare, and remove one (1) engine

**Title V Permit Information:**

**Permit Number:** R30-10300042-2016  
**Issued Date:** October 25, 2016  
**Effective Date:** November 8, 2016  
**Expiration Date:** October 25, 2021

**Directions To Facility:** From Smithfield, head southwest on County Road 2/1/Mannington Road toward WV 20S. Turn right at WV 20N and go 1.1 miles. Take the first right onto County Road 7/8/Fallen Timber Run Road and go 2.8 miles. Continue onto County Road 80/Fallen Timber Road/Shuman Hill for 0.8 miles. Turn right at County Road 80/Shuman Hill and go 1.5 miles. Turn right at County Road 15/North Fork Road and go 2.8 miles. The site will be on the left.

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THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

A handwritten signature in blue ink, appearing to read "William F. Durham".

William F. Durham  
Director

October 27, 2017  
Date Issued

Permit Number: **R30-10300042-2016**  
Permittee: **MarkWest Liberty Midstream & Resources LLC**  
Facility Name: **Mobley Gas Plant**  
Permittee Mailing Address: **1515 Arapahoe Street, Tower 1, Suite 1600**  
**Denver, CO 80202-2137**

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*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

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Facility Location:	Smithfield, Wetzel County, West Virginia
Facility Mailing Address:	14624 North Fork Road, Smithfield, WV 26437
Telephone Number:	(724)514-4367
Type of Business Entity:	LLC
Facility Description:	Natural gas gathering and processing plant.
SIC Codes:	2819
UTM Coordinates:	538.099 km Easting • 4,378.315 km Northing • Zone 17

Permit Writer: Robert Mullins

*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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*Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.*

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## 1.0 Emission Units and Active R13, R14, and R19 Permits

### 1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CM-1001	CM-1001	Waukesha P9390 GSI Compressor Engine SN: 5283701413	2012	1,980 HP	NSCR
<del>CM-1002</del>	<del>CM-1002</del>	<del>Waukesha P9390 GSI Compressor Engine SN: 5283701281</del>	<del>2012</del>	<del>1,980 HP</del>	<del>NSCR</del>
CM-1003	CM-1003	Waukesha P9390 GSI Compressor Engine SN: C-17746/1A	2012	1,980 HP	NSCR
CM-1004	CM-1004	Waukesha P9390 GSI Compressor Engine Engine SN: US-120261-02 SN: 5283701414	2012	1,980 HP	NSCR
CM-1005	CM-1005	Waukesha P9390 GSI Compressor Engine SN: C-10905/1	2012	1,980 HP	NSCR
CM-1006	CM-1006	Waukesha P9390 GSI Compressor Engine SN: 5283702043	2012	1,980 HP	NSCR
C-102	C-102	Caterpillar G3616 LE Engine, C-1102 SN: BLB-00724	2012	4,735 HP	Oxid. Cat.
C-103	C-103	Caterpillar G3616 LE Engine C-1103 SN: BLB-00725	2012	4,735 HP	Oxid. Cat.
<del>G-1</del>	<del>G-1</del>	<del>Generac MMG45 Generator</del>	<del>2012</del>	<del>53 HP</del>	<del>None</del>
<del>G-2</del>	<del>G-2</del>	<del>Kohler 40ERES Generator</del>	<del>2012</del>	<del>75 HP</del>	<del>None</del>
<del>G-3</del>	<del>G-3</del>	<del>Generac MMG45 Generator</del>	<del>2012</del>	<del>58 HP</del>	<del>None</del>
<del>G-4</del>	<del>G-4</del>	<del>Generac MMG45 Generator</del>	<del>2012</del>	<del>58 HP</del>	<del>None</del>
<b>Mobley I Plant</b>					
<del>H-1741</del>	<del>H-1741</del>	<del>Mole Sieve</del> Regeneration Gas Heater	2012	6.84 MMBtu/hr	None
<del>H-1781</del>	<del>H-1781</del>	<del>Hot Heat</del> Medium Oil Heater	2012	18.05 MMBtu/hr	None
<b>Mobley II Plant</b>					
<del>H-21741</del>	<del>H-21741</del>	<del>Mole Sieve</del> Regeneration Gas Heater	2012	8.12 MMBtu/hr	None
<del>H-21781</del>	<del>H-21781</del>	<del>Hot Heat</del> Medium Oil Heater	2012	26.0 MMBtu/hr	None
<b>Mobley III Plant</b>					
H-3741	H-3741	<del>Mole Sieve</del> Regeneration Gas Heater	2013	7.69 MMBtu/hr	None
<b>Mobley IV Plant</b>					
H-4741	H-4741	<del>Mole Sieve</del> Regeneration Gas Heater	201 <del>4</del> 3	7.69 MMBtu/hr	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
<del>H-4781</del> <u>3781</u>	<del>H-4781</del> <u>3781</u>	<del>Hot Heat</del> Medium Oil Heater	2013	16.07 MMBtu/hr	None
<u>Mobley V Plant</u>					
H-5741	H-5741	<del>Mole Sieve</del> Regeneration Gas Heater	2015	7.69 MMBtu/hr	None
H-5781	H-5781	<del>Hot Heat</del> Medium Oil Heater	2015	<del>22.93</del> <u>50.78</u> MMBtu/hr	<del>LoNOx Burner</del> <u>None</u>
FL-991	FL-991	<u>Process</u> Flare	2012	68,600 scf/hr	None
<u>TK-087</u>	<u>TK-087</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-2609</u>	<u>TK-2609</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-3410</u>	<u>TK-3410</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-3829</u>	<u>TK-3829</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-4220</u>	<u>TK-4220</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-4410</u>	<u>TK-4410</u>	<u>Methanol Tank</u>	<u>2012</u>	<u>520 gal</u>	<u>None</u>
<u>TK-1824</u>	<u>TK-1824</u>	<u>Closed Drain Tank</u>	<u>2012</u>	<u>4,265 gal</u>	<u>None</u>
<u>TK-4824</u>	<u>TK-4824</u>	<u>Closed Drain Tank</u>	<u>2012</u>	<u>4,533 gal</u>	<u>None</u>

**Control Devices**

Emission Point ID	Control Device	Emission Unit	Pollutant	Control Efficiency
CM-1001 <del>CM-1002</del>	<u>Oxidation Catalyst NSCR</u>	Waukesha P9390 GSI Compressor Engines	<del>Oxides of Nitrogen</del> <u>Oxides</u>	98%
CM-1003			Carbon Monoxide	97 %
CM-1004			Volatile Organic Compounds	60 %
CM-1005			Formaldehyde	80 %
CM-1006				
C-102 C-103	Oxidation Catalyst	Caterpillar G3616LE Compressor Engine	Carbon Monoxide	95 %
			Volatile Organic Compounds	75 %
			Formaldehyde	90 %
FL-991	Flare	<u>Process Flare Emergency Use (Unit Blowdown &amp; Maintenance Purposes)</u>	Volatile Organic Compounds	98 %
			<del>Total</del> Hazardous Air Pollutants	98 %

## 1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2878 <del>DE</del>	<del>January 7, 2016</del> <a href="#">July 31, 2017</a>

## 2.0 General Conditions

### 2.1 Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

### 2.2 Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NSPS</b>	New Source Performance Standards
<b>CBI</b>	Confidential Business Information	<b>PM</b>	Particulate Matter
<b>CEM</b>	Continuous Emission Monitor	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>CES</b>	Certified Emission Statement	<b>pph</b>	Pounds per Hour
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>ppm</b>	Parts per Million
<b>CO</b>	Carbon Monoxide	<b>PSD</b>	Prevention of Significant Deterioration
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>psi</b>	Pounds per Square Inch
<b>DAQ</b>	Division of Air Quality	<b>SIC</b>	Standard Industrial Classification
<b>DEP</b>	Department of Environmental Protection	<b>SIP</b>	State Implementation Plan
<b>FOIA</b>	Freedom of Information Act	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>HAP</b>	Hazardous Air Pollutant	<b>TAP</b>	Toxic Air Pollutant
<b>HON</b>	Hazardous Organic NESHAP	<b>TPY</b>	Tons per Year
<b>HP</b>	Horsepower	<b>TRS</b>	Total Reduced Sulfur
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>TSP</b>	Total Suspended Particulate
<b>LDAR</b>	Leak Detection and Repair	<b>USEPA</b>	United States Environmental Protection Agency
<b>m</b>	Thousand	<b>UTM</b>	Universal Transverse Mercator
<b>MACT</b>	Maximum Achievable Control Technology	<b>VEE</b>	Visual Emissions Evaluation
<b>mm</b>	Million	<b>VOC</b>	Volatile Organic Compounds
<b>mmBtu/hr</b>	Million British Thermal Units per Hour		
<b>mmft<sup>3</sup>/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour		
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards		
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants		
<b>NO<sub>x</sub></b>	Nitrogen Oxides		

### **2.3. Permit Expiration and Renewal**

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.  
**[45CSR§30-5.1.b.]**
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.  
**[45CSR§30-4.1.a.3.]**
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.  
**[45CSR§30-6.3.b.]**
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.  
**[45CSR§30-6.3.c.]**

### **2.4. Permit Actions**

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
**[45CSR§30-5.1.f.3.]**

### **2.5. Reopening for Cause**

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
  - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
  - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

**[45CSR§30-6.6.a.]**



## **2.6. Administrative Permit Amendments**

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.  
**[45CSR§30-6.4.]**

## **2.7. Minor Permit Modifications**

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.  
**[45CSR§30-6.5.a.]**

## **2.8. Significant Permit Modification**

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.  
**[45CSR§30-6.5.b.]**

## **2.9. Emissions Trading**

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.  
**[45CSR§30-5.1.h.]**

## **2.10. Off-Permit Changes**

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
  - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
  - c. The change shall not qualify for the permit shield.
  - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
  - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

**[45CSR§30-5.9.]**

## **2.11. Operational Flexibility**

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

**[45CSR§30-5.8]**

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

**[45CSR§30-5.8.a.]**

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

**[45CSR§30-5.8.c.]**

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

**[45CSR§30-2.39]**

## **2.12. Reasonably Anticipated Operating Scenarios**

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
  - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
  - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

## **2.13. Duty to Comply**

- 2.13.1. 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; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

## **2.14. Inspection and Entry**

- 2.14.1. 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.

[45CSR§30-5.3.b.]

## **2.15. Schedule of Compliance**

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
  - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

## **2.16. Need to Halt or Reduce Activity not a Defense**

- 2.16.1. It shall not be a defense for a permittee 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 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.

[45CSR§30-5.1.f.2.]

## **2.17. Emergency**

- 2.17.1. 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 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.

[45CSR§30-5.7.a.]

- 2.17.2. 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 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. 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. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, 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, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

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

[45CSR§30-5.7.d.]

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

[45CSR§30-5.7.e.]

## **2.18. Federally-Enforceable Requirements**

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

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

## **2.19. Duty to Provide Information**

- 2.19.1. 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 modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required 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.

[45CSR§30-5.1.f.5.]

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

- 2.20.1. 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.

[45CSR§30-4.2.]

## **2.21. Permit Shield**

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

## **2.22. Credible Evidence**

2.22.1. 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 defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

## **2.23. Severability**

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

[45CSR§30-5.1.e.]

## **2.24. Property Rights**

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

[45CSR§30-5.1.f.4]

## **2.25. Acid Deposition Control**

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.  
**[45CSR§30-5.1.a.2.]**

### 3.0 Facility-Wide Requirements

#### 3.1 Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **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 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.]
- 3.1.3. **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. [40 C.F.R. §61.145(b) and 45CSR34]
- 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. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.



- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

**[40 C.F.R. 82, Subpart F]**

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

**[40 C.F.R. 68]**

- 3.1.9. The fuel gas (residue gas) for the facility shall not exceed the following:
  - a. Total VOCs content greater than 1% by weight on a 12-month rolling basis.
  - b. Hydrogen sulfide or total sulfur compounds greater than 4 grains per 100 cubic feet of gas.

**[45CSR13, R13-2878 Condition 3.1.7]**

### **3.2. Monitoring Requirements**

- 3.2.1. The permittee shall analyze the fuel gas for the facility once per month. Such analysis shall determine the net heating value, percentage of VOC in the fuel gas. Such analysis shall be maintained in accordance with Condition 3.4.2.

**[45CSR13, R13-2878 Condition 3.2.1]**

- 3.2.2. For the purpose of demonstrating compliance with Conditions 3.1.9. ~~and 5.1.4~~, the permittee shall conduct gas sampling at a point that is representative of the incoming field gas and analyzing the sample to determine the hydrogen sulfide content of the sample. At the minimum, such sampling and analysis shall be conducted once per year and thereafter. Once per year shall mean between 11 months to 13 months from the previous gas sampling. Records of such monitoring shall be maintained in accordance with Condition 3.4.2. of this permit.

**[45CSR§10-8.2.c and 45CSR§10-8.3.a, 45CSR13, R13-2878 Condition 3.2.2]**

### **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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are 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.
- 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 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.
  3. A statement of compliance or non-compliance with each permit or rule condition.

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

### 3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** 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.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2878 Conditions 4.4.1, and 6.4.1 and 7.4.1]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.  
**[45CSR§30-5.1.c.2.B.]**
- 3.4.3. **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§30-5.1.c. 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.  
**[45CSR§§30-4.4. and 5.1.c.3.D.]**
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.  
**[45CSR§30-5.1.c.3.E.]**
- 3.5.3. Except for the electronic submittal of the annual [compliance certification](#) and [semi-annual monitoring reports](#) to the [DAQ and USEPA](#) as required in 3.5.5 and 3.5.6 below, 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, mailed first class or by private carrier with postage prepaid to the address(es), [or submitted in electronic format by e-mail as](#) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**~~If to the~~ DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

~~Phone: 304/926-0475~~  
~~FAX: 304/926-0478~~

**DAQ Compliance and Enforcement<sup>1</sup>:**

[DEPAirQualityReports@wv.gov](mailto:DEPAirQualityReports@wv.gov)

**~~If to the~~ US EPA:**

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

<sup>1</sup>For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.  
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. ~~The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3\_APD\_Permits@epa.gov.~~ The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:  
DEPAirQualityReports@wv.gov

US EPA:  
R3 APD Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:  
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective

actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

**[45CSR§30-5.1.c.3.C.]**

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

**[45CSR§30-5.1.c.3.B.]**

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

**[45CSR§30-4.3.h.1.B.]**

### **3.6. Compliance Plan**

- 3.6.1. None.

### **3.7. Permit Shield**

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

- a. 40 C.F.R. 60 Subpart Dc - The Mole Sieve Regeneration Heaters (H-1741, H-2741, H-3741, H-4741 and H-5741) meet the definition of process heaters under 40 C.F.R. 60 subpart Dc. Thus they are excluded as affected units (per definition of steam generating unit) under this regulation.

#### 4.0 Source Specific Requirements Compressor Engines [emission point ID(s): CM-1001, ~~CM-1002~~, CM-1003, CM-1004, CM-1005, CM-1006, C-102, & C-103]

##### 4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to the internal combustion engines identified as CM-1001, ~~CM-1002~~, CM-1003, CM-1004, CM-1005, and CM-1006; and the connected compressors:

- a. Emissions from each engine shall not exceed the following:
  - i. NO<sub>x</sub> emissions from the engine shall not exceed 82 ppmvd at 15 percent O<sub>2</sub>. The mass rate of NO<sub>x</sub> emissions from each engine shall not exceed 0.87 pounds per hour and 3.83 tpy.
  - ii. CO emissions from engine shall not exceed 270 ppmvd at 15 percent O<sub>2</sub>. The mass rate of CO emissions from each engine shall not exceed 1.14 pounds per hour and 4.99 tpy.
  - iii. VOC emissions from the engine shall not exceed 60 ppmvd at 15 percent O<sub>2</sub>. Formaldehyde is excluded from this VOC limit. The mass rate of VOC emissions shall not exceed 0.52 pounds per hour and 2.29 tpy.  
**[40 CFR §60.4333(e) & Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP]**
  - iv. Formaldehyde emissions from each engine shall not exceed 0.04 pounds per hour and 0.19 tpy.
- b. Each engine shall be equipped with a non-selective catalytic reduction (NSCR) air pollution control device.
- c. Each engine shall be equipped with an air to fuel ratio (AFR) controller. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.  
**[40 CFR §60.4243(g)]**
- d. Each engine shall be equipped with a non-resettable hour meter.
- e. The permittee shall replace the rod packing in each affected compressor once every 26,000 hours of operation.  
**[40 CFR §60.5385(a)(1) and §60.5415(c)(3)]**

**[45CSR16; 45CSR13, R13-2878 Condition 4.1.1]( CM-1001, ~~CM-1002~~, CM-1003, CM-1004, CM-1005, and CM-1006)**

4.1.2. The following conditions and requirements are specific to the internal combustion engines identified as C-102 & C-103:

- a. Emissions from the engine shall not exceed the following:
  - i. NO<sub>x</sub> emissions from the engine shall not exceed 82 ppmvd at 15 percent O<sub>2</sub>. The mass rate of NO<sub>x</sub> emissions shall not exceed 5.22 pounds per hour and 22.86 tpy.

- ii. CO emissions from engine shall not exceed 270 ppmvd at 15 percent O<sub>2</sub>. The mass rate of CO emissions shall not exceed 1.44 pounds per hour and 6.29 tpy
- iii. VOC emissions from the engine shall not exceed 60 ppmvd at 15 percent O<sub>2</sub>. Formaldehyde is excluded from this VOC limit. The mass rate of VOC emissions shall not exceed 2.63 pounds per hour and 11.52 tpy.

**[40 CFR §60.4333(e) & Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP]**

- iv. Formaldehyde emissions from each engine shall not exceed 0.27 pounds per hour and 1.19 tpy.
- b. Each engine shall be equipped with an oxidation catalyst air pollution control device.
- c. Each engine shall be equipped with an air to fuel ratio (AFR) controller. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.  
**[40CFR§60.4243(g)]**
- d. Each engine shall be equipped with a non-resettable hour meter.
- e. The permittee shall replace the rod packing in each affected compressor once every 26,000 hours of operation.  
**[40 CFR §60.5385(a)(1) and §60.5415(c)(3)]**

**[45CSR16; 45CSR13, R13-2878 Condition 4.1.2](C-102 and C-103)**

- 4.1.3. The permittee shall only operate these engines using fuel gas, except during emergency operation at which the permittee may operate them using propane for a maximum of 100 hours per year.  
**[45CSR16; 45CSR13, R13-2878 Condition 4.1.3, 40CFR§60.4243(e)]**

4.1.4. Requirements for Use of Oxidization Catalysts and NSCR

- a. ~~Natural gas compressor engines~~ Rich-burn natural gas-fired 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 ~~potential to emit 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 ~~deliver additional fuel when required to~~ ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to ~~2%, 0.5%~~. ~~The automatic air/fuel ratio controller shall also incorporate dual point exhaust gas temperature and oxygen sensors which provide temperature and exhaust oxygen content differential feedback. Such controls shall ensure proper and efficient operation of the engine and NSCR air pollution control device;~~
- b. ~~Natural gas compressor engines~~ Lean-burn natural gas engine(s) equipped with ~~selective catalytic reduction (SCR) 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 ~~potential to emit emission limit listed in the General Permit Registration~~ for any engine/~~SCR oxidation catalyst~~ combination under varying load. The closed-loop, automatic air/fuel ratio feedback controller shall ~~control a fuel metering valve to ensure a lean-rich mixture, 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 ppmv;~~

- c. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element;
- d. The permittee shall check the air/fuel ratio every 1,500 service hours and adjust in accordance to the manufacturer's specifications. The permittee shall maintain these records for five (5) years. The permittee 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. The permittee shall also inspect for thermal deactivation of the catalyst before restarting the engine;
- e. No person shall knowingly:
  - i. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of this permit;
  - ii. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of this permit; or
  - iii. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

**[45CSR13, R13-2878 Condition 4.1.4]**

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

**[45CSR§13-5.11., 45CSR13, R13-2878 Condition 4.1.5]**

## 4.2. Monitoring Requirements

- 4.2.1. The permittee shall maintain a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

**[45CSR16; 45CSR13, R13-2878 Condition 4.2.1, 40 CFR §60.4243(b)(2)(ii)]**

- ~~4.2.2. The permittee shall monitor and record the hours of operation through the non-resettable hour meter for each engine on a monthly basis and record the number of hours the engine operated using propane. Records of such monitoring shall be maintained in accordance with Condition 3.4.2.~~

~~**[45CSR16; 45CSR13, R13-2878 Condition 4.2.2, 40CFR§60.4243(e)]**~~



### 4.3. Testing Requirements

- 4.3.1. The permittee must conduct performance testing on engines CM-1001, ~~CM-1002~~, CM-1003, CM-1004, CM-1005, CM-1006, C-102, and C-103 once every 8,760 hours of operation or once every three years, whichever comes first. Such testing shall be conducted in accordance with the applicable procedures in 40 CFR §60.4244 and Condition 3.3.1. Records of such testing shall be maintained in accordance with Condition 3.4.2.  
**[45CSR16; 45CSR13, R13-2878 Condition 4.3.1, 40CFR§60.4243(b)(2)(ii)]**

### 4.4. Recordkeeping Requirements

- 4.4.1. **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.  
**[45CSR13, R13-2878 Condition 4.4.2]**

- 4.4.2. **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.

**[45CSR13, R13-2878 Condition 4.4.3]**

- 4.4.3. For each compressor connected to Engines CM-1001, ~~CM-1002~~, CM-1003, CM-1004, CM-1005, CM-1006, C-102, and C-103, the permittee shall maintain records of the following in accordance with Condition 3.4.2.
- a. Record the cumulative number of hours of operation since initial startup or the previous replacement of the reciprocating compressor rod packing, whichever is later;
  - b. Record of the date of the most recent replacement of the rod packing.
- [45CSR16; 45CSR13, R13-2878 Condition 4.4.4; 40 C.F.R. §§60.5385(a)(1), 60.5410(c)(1), 60.5415(c)(1), 60.5420(c)(3)(i) and (ii)]**

- 4.4.4. The permittee shall maintain records of the monitoring as required in Condition 4.1.4. for each engine in accordance with Condition 3.4.2.

**[45CSR13, R13-2878 Condition 4.4.4]**

- 4.4.5. Owners and operators of all stationary SI ICE must keep records of the following information:

- a. All notifications submitted to comply with this subpart and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

**[45CSR16; 40 C.F.R. §§60.4245(a)(1), (2), & (4)]**

- 4.4.6. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 C.F.R. §60.4231 must submit an initial notification as required in 40 C.F.R. §60.7(a)(1). The notification must include the following information:

- a. Name and address of the owner or operator;
- b. The address of the affected source;
- c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- d. Emission control equipment; and
- e. Fuel used.

**[45CSR16; 40 C.F.R. §60.4245(c)]**

- 4.4.7. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in 40 C.F.R. §60.4244 within 60 days after the test has been completed.

**[45CSR16; 40 C.F.R. §60.4245(d)]**

- 4.4.8. For each reciprocating compressors affected facility, you must maintain records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in 40 C.F.R. §60.5385.

**[45CSR16; 40 C.F.R. §60.5420(c)(3)(iii)]**

## **4.5. Reporting Requirements**

- 4.5.1. The permittee shall submit annual compliance reports that indicates compliance with Conditions 4.1.1.e., 4.1.2.e. and 40 CFR §60.5385(a)(1) from the compressors connected to engines to the Director and Administrator in accordance with Conditions 3.5.1. and 3.5.3. The reporting period of such reports shall

begin on October 15 and ends on October 14. Submission of reports must be made within 90 days from the end of the reporting period. The permittee may submit one report for multiple affected facilities under Subpart OOOO to Part 60. Such reports shall include the following information:

- a. The company name and address of the affected facility
- b. An identification of each affected facility being included in the annual report.
- c. Beginning and ending dates of the reporting period.
- d. A certification by a certifying 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.
- e. The records as required in Condition 4.4.3. for each affected compressor.
- f. Records of deviations specified in 40 C.F.R. §60.5420(c)(3)(iii) that occurred during the reporting period.

**[45CSR16; 45CSR13, R13-2878 Condition 4.5.1, 40 CFR §§60.5420(b)(1) and (b)(4)]**

#### **4.6. Compliance Plan**

- 4.6.1. None.

**5.0 Source Specific Requirements Process Heaters [emission point ID(s): H-741, H-781, H-1741, H-1781, ~~H-2741, H-2781~~, H-3741, H-4741, H-4781~~3781~~, H-5741, H-5781]**

**5.1. Limitations and Standards**

5.1.1. Maximum Design Heat Input. The maximum design heat input (MDHI) for each of the heaters shall not exceed the following:

<b>Table 5.1.1. – List Heaters</b>			
Emission Unit ID#	Heater Description	MDHI (MMBtu/hr)	Annual Heat Input (MMBtu/yr)
H-1741	<del>Mole Sieve</del> Regeneration <del>Gas</del> Heater <sup>1</sup>	6.84	59,918.40
H-1781	<del>Hot Heat</del> Medium Oil Heater	18.05	158,118.00
<del>H-2741</del> <u>1741</u>	<del>Mole Sieve</del> Regeneration <del>Gas</del> Heater <sup>1</sup>	8.12	71,131.20
<del>H-2781</del> <u>1781</u>	<del>Hot Heat</del> Medium Oil Heater	26.00	227,760.00
H-3741	<del>Mole Sieve</del> Regeneration <del>Gas</del> Heater <sup>1</sup>	7.69	67,364.40
H-4741	<del>Mole Sieve</del> Regeneration <del>Gas</del> Heater <sup>1</sup>	7.69	67,364.40
<del>H-4781</del> <u>3781</u>	<del>Hot Heat</del> Medium Oil Heater	16.07	140,773.20
H-5741	<del>Mole Sieve</del> Regeneration <del>Gas</del> Heater <sup>1</sup>	7.69	67,364.40
H-5781	<del>Hot Heat</del> Medium Oil Heater	<del>22.93</del> <u>50.78</u>	<del>200,866.80</del> <u>444,832.80</u>
Total Maximum Design Heat Input		<del>121.08</del> <u>148.93</u>	<del>1,060,660.80</del> <u>1,304,626.8</u>

1 - Denotes the heater is a process heater per 45 CSR §2-2.26.

**[45CSR13, R13-2878 Condition 5.1.1, ~~45CSR§30-12.7~~]**

5.1.2. The following heaters shall not exhibit visible emissions greater than 10 percent opacity on a six minute block average: H-1781, H-~~1781~~~~2781~~, H-~~3781~~~~4781~~, and H-5781.

**[45CSR13, R13-2878 Condition 5.1.2, 45CSR§2-3.1.]**

5.1.3. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1.a through 4.1.e.

**[45CSR§10-4.1](H-1741, H-~~1741~~~~2741~~, H-3741, H-4741, H-5741)**

5.1.4. The permittee shall not exceed the following limits of annual emissions from combined heaters listed in Table 5.1.1.

- a. Emissions of NOx shall not exceed ~~39.42~~ 47.35 tpy.
- b. Emissions of CO shall not exceed ~~31.07~~ 35.95 tpy.
- c. Emissions of VOCs shall not exceed ~~3.27~~ 4.73 tpy.

Compliance with these emissions limits shall be satisfied by complying with Conditions 5.1.4., 5.1.5., and 5.1.6.

**[45CSR13, R13-2878 Condition 5.1.3]**

- 5.1.5. All of the fuel burning units listed in Table 5.1.1. shall be limited to using residue gas that complies with the requirements of Condition 3.1.9. Complying with this condition satisfies compliance with Condition 5.1.2. The use of residue gas in these emission units satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b., and 45CSR§10-3.1.e.

**[45CSR13, R13-2878 Condition 5.1.4, 45 CSR §2-8.4.b., 45CSR§2A-3.1.a., 45CSR§10-10.3., and 45CSR§10A-3.1.b.](H-1781, H-17812781, H-37814781, H-5781)**

- 5.1.6. The permittee shall conduct tune-up of all of the heaters that are listed in Table 5.1.1. that have a MDHI of 5.0 MMBtu/hr or greater once every three years in accordance with the following:

- a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
- b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
- d. Optimize total emissions of CO to a concentration not to exceed manufacturer's guaranteed concentration. This optimization should be consistent with the manufacturer's specifications, which includes the manufacturer's NOx concentration specification of not to exceed manufacturer's guarantee or specified concentration.
- e. Measure the concentrations in the effluent stream of NOx and CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

**[45CSR13, R13-2878 Condition 5.1.5]**

- 5.1.7. The annual heat input of each heater listed in Table 5.1.1. shall not exceed the value as listed in the table for the corresponding heater. Compliance with this limit shall be conducted on 12 month rolling total.

**[45CSR13, R13-2878 Condition 5.1.6]**

## 5.2. Monitoring Requirements

- 5.2.1. For each month, the permittee shall record the hours of operation and amount of fuel gas consumed by heaters listed in Table 5.1.1., and shall calculate the rolling yearly total of total heat input from the heaters. The permittee may record the total amount of fuel gas consumed by the heaters and other emission units on a combined basis. For other emission units not listed but fuel usage is included on the fuel meter, the permittee shall monitor the hours of operation of these sources to account for their fuel usage as well. Such records shall be maintained in accordance with Condition 3.4.2. of this permit.

**[45CSR13, R13-2878 Condition 5.2.1; 40 CFR §60.48c(g)(2) and 45CSR§2-8.3.c. (citations do not apply to process heaters as denoted in Footnote 1 of condition 5.1.1)]**

### **5.3. Testing Requirements**

5.3.1. None.

### **5.4. Recordkeeping Requirements**

5.4.1. The permittee shall keep the following records in accordance with Condition 3.4.2. This includes but is not limited to the following information during the tune-up as required in Condition 5.1.6:

- a. The concentrations of CO and NO<sub>x</sub> in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; and
- b. A description of any corrective actions taken as a part of the tune-up.

**[45CSR13, R13-2878 Condition 5.4.1]**

### **5.5. Reporting Requirements**

5.5.1. None.

### **5.6. Compliance Plan**

5.6.1. None.

## 6.0 Source Specific Requirements Gas Process Units & LDAR Program

### 6.1 Limitations and Standards

6.1.1. All groups of equipment located within Mobley I though V Gas Processing Units, inlet area, wet gas compressors, and any other unit(s) that is in VOC service (i.e. NGL) are subject to the following except for compressors and components only in residue gas service:

a. Each pneumatic controller at the facility must have a bleed rate of zero. Compliance with this requirement shall be satisfied by using only compressed air driven pneumatic controllers at the facility. Each pneumatic controller shall be tagged with the month and year of installation and identification information that allows traceability to the records for that pneumatic controller as required in C.F.R §60.5420(c)(4)(iv).

**[40 CFR §§60.5390(b)(1) & (b)(2)]**

b. Each pressure relief device (PRD) in gas/vapor service shall be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in 40 CFR §60.485a(b) unless the PRD meets the criteria of sub item vi. of this item.

i. If an instrument reading of 500 ppm or greater is measured, a leak is detected.

ii. When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 CFR §60.482-9a.

iii. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

iv. Any pressure relief device that is located in a nonfractionating plant that is monitored only by non-plant personnel may be monitored after a pressure release the next time the monitoring personnel are on-site, instead of within 5 days as specified in 40 C.F.R. §60.5401(b)(1) and 40 C.F.R. §60.482-4a(b)(1).

v. No pressure relief device described in 40 C.F.R. §60.5401(b)(4)(i) must be allowed to operate for more than 30 days after a pressure release without monitoring.

vi. Each pressure relief device in VOC gas/vapor service located at the facility that is piped into a closed vent system and routed to a control device in accordance with Condition 6.1.2. is exempt from the requirements of this item.

**[40 CFR §§60.5401(b)(1) though (b)(4)]**

c. All pumps in light liquid service, valves in gas/vapor or light liquid service, and connectors in gas/vapor or light liquid service shall not exhibit leaks as defined in the following.

**[40 CFR §60.5400(a), §§60.482-2a, 7a, and 11a]**

i. A leak for pumps in light liquid service is defined as a measured instrument reading of 2,000 ppm or greater using Method 21 or any visible emission that may otherwise be invisible to the naked eye using an optical gas imaging instrument (OGII).

**[40 CFR §60.482-2a(b)(1) and §60.18(g)(3)]**

- ii. A leak for valves in gas/vapor or light liquid service is defined as a measured instrument reading of 500 ppm or greater using Method 21 or any visible emission that may otherwise be invisible to the naked eye using an OGII.  
**[40 CFR §60.482-7a(b) and §60.18(g)(3)]**
- iii. A leak for connector in gas/vapor or light liquid service is defined as a measured instrument reading of 500 ppm or greater using Method 21 or any visible emission that may otherwise be invisible to the naked eye using an OGII.  
**[40 CFR §60.482-11a(b)(2) and §60.18(g)(3)]**
- d. Sampling connection systems are exempt from the requirements of §60.482-5a.  
**[40 CFR §60.5401(c)]**
- e. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve except as noted in Sub-items iii and iv of this item.
  - i. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operation requiring process fluid flow through the open-ended valve or line.
  - ii. Each open-ended line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
  - iii. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with item e of this condition at all other times.
  - iv. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of the above sub-item e of this condition.  
**[40 CFR §60.5400(a), §60.482-6a]**
- f. Any leaking component must be repaired as soon as practicable, but no later 15 calendar days after it is detected, except as provided in item h of this condition (40 CFR §60.482-9a).
  - i. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.  
**[40 C.F.R. §60.5400(a), §60.482-2a(c)]**
- g. Delay of repair (DOR) of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify the repair must occur within 15 days after startup of the process unit.  
**[40 CFR §60.5400(a), §60.482-9a(a)]**
- h. Delay of repair (DOR) of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.  
**[40 CFR §60.5400(a), §60.482-9a(b)]**
- i. Delay of repair for valves and connectors will be allowed if:



- i. The permittee demonstrates that the emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from the delay of repair; and
- ii. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with the requirements of Condition 6.1.3. (40 CFR §60.482-10a).  
**[40 CFR §60.5400(a), §60.482-9a(c)]**
- j. Delay of repair beyond a process unit shutdown is allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies have been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.  
**[40 C.F.R. §60.5400(a), §60.482-9a(e)]**
- k. When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.  
**[40 C.F.R. §60.5400(a), §60.482-9a(f)]**

**[45CSR13, R13-2878 Condition 6.1.1, 45CSR16]**

- 6.1.2. The closed vent system that is used to route any pressure relief devices in VOC service at the facility that is either routed to control device Flare FL-991 or back to a process shall be installed, maintained and operated in accordance with the following requirements:
- a. The closed vent system shall be constructed of hard piping;  
**[40 CFR §60.5400(a), §60.482-10a(f)(1)]**
  - b. The closed vent system shall be free of leaks. A leaking component is defined as a measured instrument reading greater than 500 ppm above background or by visual inspection.  
**[40 CFR §60.5400(a), §60.482-10a(g)]**
  - c. Detected leaks shall be repaired as soon as practicable with the first attempt at repair shall be made within 5 calendar days after detecting the leak. Repair shall be completed no later than 15 calendar days after the leak is detected.  
**[40 CFR §60.5400(a), §60.482-10a(g)(1) & (g)(2)]**
  - d. Delay of repair (DOR) of the closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process shutdown or if the permittee determines that emissions resulting from the immediate repair would be greater than the fugitive emissions likely to result from the DOR. Repair of such equipment shall be complete by the end of the next process shutdown.  
**[40 CFR §60.5400(a), §60.482-10a(h)]**
  - e. If the permittee determines any parts of the closed vent system as unsafe to monitor by exposing the monitoring personnel to an imminent or potential danger, the permittee shall develop and implement a plan that allows for the monitoring of such components during safe-to-inspect times.  
**[40 CFR §60.5400(a), §60.482-10a(j)]**

- f. Any parts of the closed vent system that are designated, as described in 40 CFR §60.482-10a(1)(2), as difficult to inspect are exempt from the inspection requirements of Condition 6.2.2. if the permittee complies with the requirements specified in the following:
- i. The permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface;
  - ii. The process unit within which the closed vent system is located becomes an affected facility through §§60.14 or 60.15, or the permittee designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and
  - iii. The permittee shall develop a written plan that requires inspection of difficult to inspect equipment at least once every 5 years.  
[40 CFR §60.5400(a), §60.482-10a(k)]
- g. Closed vent systems and control devices used to comply with provisions of Subpart OOOO to Part 60 shall be operated at all times when emissions may be vented to them.  
[40 CFR §60.482-10a(m) & §60.5400(a)]

[45CSR13, R13-2878 Condition 6.1.2, 45CSR16]

6.1.3. Flare FL-991 shall be designed and operated in accordance with the following:

- a. The flare shall be ~~an~~ equipped with five (5) non-assisted flare tips and one (1) air-assisted flare tip.  
[45CSR16, 40 CFR §60.18(c)(6) & §60.482-10a(d)]
- b. The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.  
[45CSR16, 40 CFR §60.18(c)(1)]
- c. The flare shall be operated with a flame present at all times whenever emissions may be vented to them.  
[45CSR16, 40 CFR §60.18(c)(2)]
- d. The net heating value of the effluent going to the flare shall be ~~1,000~~ 300 Btu per scf or greater.  
[45CSR16, 40 CFR §§60.18(c)(3)(ii) & (c)(4)(ii)]
- e. The ~~main flare tip~~ exit velocity of each of the non-assisted flare tips shall not exceed ~~253.5~~ 120.95 feet per second.  
[45CSR16, 40 CFR §60.18(c)(5)]
- f. The exit velocity of the air-assisted flare tip shall not exceed 120.95 feet per second.  
[40 CFR §60.485a(g)(3); 45CSR16]
- g. ~~f.~~ The maximum flow rate to the flare system shall not exceed ~~45.25~~ 94.71 MMscf per year.
- h. ~~g.~~ The total emissions from the flare shall not exceed the following limits:
  - i. Emissions of NO<sub>x</sub> shall not exceed ~~0.44~~ 0.90 pounds per hour and ~~0.48~~ 3.95 tpy.

- ii. Emissions of CO shall not exceed ~~0.09~~ 4.81 pounds per hour and ~~0.40~~ 21.05 tpy.
- iii. Emissions of VOC shall not exceed 6.91 tpy.

**[45CSR13, R13-2878 Condition 6.1.3]**

- 6.1.4. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.  
**[45CSR13, R13-2878 Condition 6.1.4;45CSR§13-5.11.]**

## 6.2. Monitoring Requirements

- 6.2.1. For the purpose of demonstrating continuous compliance with the emission requirements of Condition 6.1.1., the permittee shall conduct leak detection monitoring of all affected components at the facility in accordance with the following:
- a. Each pump in light liquid service shall be checked by visual inspection each calendar week for indication of liquids dripping from the pump seal. Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in 40 CFR §60.482-2a(c) or by eliminating the visual indications of liquids dripping.  
**[40 CFR §60.482-2a(a)(2)]**
  - b. Each pump and valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR §60.485a(b).  
**[40 CFR §60.482-2a(a)(1) & §60.482-7a(a)(1)]**
  - c. Each connector shall be monitored in accordance with the frequency prescribed in 40 CFR §60.482-11a(b)(3) to detect leaks by the methods specified in 40 CFR §60.485a(b). Connectors on new process units (~~i.e. Mobley VII, VIII, & IX~~) shall be monitored in accordance with the frequency stipulated in this item 12 months after startup of the affecting process unit.  
**[40 C.F.R. §§60.482-11a(a) and (b)]**
  - d. Each connector of a new process unit (~~i.e. Mobley VII, VIII, & IX~~) at the facility shall be monitored within the initial 12 months after start-up of the process unit to detect leaks by methods specified in 40 CFR §60.485a(b).  
**[40 C.F.R. §§60.482-11a(a) and (b)]**
  - e. The permittee may use the Alternative Work Practice (AWP) for monitoring equipment for leaks in lieu of the methods specified in 40 CFR §60.485a(b) (Method 21) as outlined in 40 CFR §§60.18(g), (h), and (i) (OGII). If the permittee elects to use the AWP, then the following items are in effect:
    - i. The frequency of monitoring for all affected components shall be bi-monthly or one of the other monitoring frequencies listed in Table 1 to Subpart A of Part 60.
    - ii. The detection sensitivity level shall be 60 grams per hour or the corresponding selected monitoring frequency in Table 1 to Subpart A of Part 60.

- iii. The selected OGII must provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in 40 CFR §60.18(i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed. The OGII must provide a date and time stamp for video records of every monitoring event.
- iv. If the AWP is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either AWP or the 40 CFR part 60, appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.
- v. The AWP shall not be used for equipment being monitored:
  1. Skip period leak detection and repair;
  2. Quality improvement plans; or
  3. Complying with standards for allowable percentage of valves and pumps to leak.
- vi. All components shall be monitored annually using 40 CFR Part 60, appendix A-7, Method 21 monitor at the leak definition required in Condition 6.1.1.c. The permittee may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. The permittee must keep records of the annual Method 21 screening results, as specified in 40 CFR §60.18(i)(4)(vii).

**[40 C.F.R §§60.18(g), (h) and (i)]**

- f. Records of such monitoring shall be maintained in accordance with Section 6.4.and Condition 3.4.1.

**[45CSR13, R13-2878 Condition 6.2.1; 45CSR16; 40 CFR §60.18(a)(2), §§60.18(g) though (i), §60.485a(b), §60.5410(f)]**

- 6.2.2. For the purpose of demonstrating compliance with the requirements of the closed vent system in Condition 6.1.2., the permittee shall conduct the following:

- a. Conduct an initial inspection according to the procedures in 40 CFR §60.485a(b) (Method 21).
- b. Conduct annual visual inspections for visible, audible, or olfactory indicators of leaks. The permittee may use an OGII if the distance to targeted components is within the distance used in the daily instrument check described in 40 CFR §60.18(i)(2) to satisfy the annual visual inspection requirement.
- c. Detected leaks shall be repaired in accordance with the timing stated in Condition 6.1.2.
- d. Records of such inspections shall be maintained in accordance with Condition 6.4.54.

**[45CSR13, R13-2878 Condition 6.2.2; 45CSR16; 40 CFR §60.482-10a(f)(1) & §60.5400(a)]**

- 6.2.3. The permittee shall monitor and record the volumetric amount of effluent, which includes the purge gas, routed to Flare FL-991. Such records shall be maintained in accordance with Condition 3.4.2.

**[45CSR13, R13-2878 Condition 6.2.3]**

6.2.4. In order to demonstrate compliance with the requirements of 6.1.3.c, the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device.  
[45CSR13, R13-2878 Condition 6.2.4; 45CSR16; 40 CFR §60.18(f)(2)]

6.2.5. For the purpose of demonstrating proper operation of the flare (FL-991), the permittee shall conduct a visible emission observation using Section 11 of Method 22 for one hour once every calendar quarter. If during the first 30 minutes of the observation there were no visible emissions observed, the permittee may stop the observation.

If at the end of the observation, visible emission were observed for more than 2.5 minutes, then the permittee shall follow the manufacturer's repair instruction, if available or best combustion engineering practice as outlined in the unit inspection and maintenance plan. To return the flare to compliant operation, the permittee shall repeat the visible emission observation. Records of such monitoring and repair activities shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-2878 Condition 6.2.5]

### 6.3. Testing Requirements

6.3.1. In order to demonstrate compliance with the flare opacity requirements of 6.1.3.b the permittee shall conduct a Method 22 opacity test for at least two hours within 180 days after issuance of this permit. 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 180 days after initial startup. 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.

[45CSR13, R13-2878 Condition 6.3.1; 45CSR16; 40 CFR §60.18(f)(1)]

### 6.4. Recordkeeping Requirements

6.4.1. **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.

[45CSR13, R13-2878 Condition 6.4.2]

6.4.2. **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.

**[45CSR13, R13-2878 Condition 6.4.3]**

- 6.4.3. The permittee shall record the information specified in the following for each monitoring event required in Conditions 6.2.1. and 6.2.2.
  - a. Monitoring instrument identification.
  - b. Operator identification.
  - c. Equipment identification.
  - d. Date of monitoring.
  - e. Instrument reading.

**[45CSR13, R13-2878 Condition 6.4.4; 45CSR16; 40 CFR §60.486a(a)(3) & §60.5421]**

- 6.4.4. The permittee shall record and maintain such records in accordance with Condition 3.4.2 for the following information as for the equipment of the closed vent system in Condition 6.1.2.
  - a. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.
  - b. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.
  - c. For each inspection during which a leak is detected, a record of the information specified in §60.486a(c).
  - d. For each inspection conducted in accordance with Condition 6.2.2. during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.
  - e. For each visual inspection conducted as required in Condition 6.2.2. during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

- f. The following information pertaining to the design requirements for closed vent systems and control devices described in Conditions 6.1.2. and 6.1.3. shall be recorded and kept in a readily accessible location:
  - i. Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - ii. The dates and descriptions of any changes in the design specifications.
  - iii. Periods when the closed vent system and flare required in Conditions 6.1.2. and 6.1.3. are not operated as designed, including periods when a flare pilot light does not have a flame.
  - iv. Dates of startups and shutdowns of the closed vent systems and control devices.

**[45CSR13, R13-2878 Condition 6.4.5; 45CSR16; 40 CFR §60.482-10a(l), §60.486a(d), §60.5400(a), & §60.5421(a)]**

- 6.4.5. The permittee shall record the following for when each leak is detected as specified in Condition 6.1.1.c.
  - a. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
  - b. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR §60.482-7a(c) and no leak has been detected during those 2 months.
  - c. The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

**[45CSR13, R13-2878 Condition 6.4.6; 45CSR16; 40 CFR §60.486a(b) & §60.5421(a)]**

- 6.4.6. The permittee shall record the following information for when each leak is detected as specified in Condition 6.1.1.c. in a log and shall be kept for 2 years in a readily accessible location:
  - a. The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.
  - b. The date the leak was detected and the dates of each attempt to repair the leak.
  - c. Repair methods applied in each attempt to repair the leak.
  - d. Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be non-repairable, except when a pump is repaired by eliminating indications of liquids dripping.
  - e. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
  - f. The signature of the permittee (or designate) whose decision it was that repair could not be effected without a process shutdown.
  - g. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

- h. Dates of process unit shutdowns that occur while the equipment is unrepaired.
- i. The date of successful repair of the leak.

**[45CSR13, R13-2878 Condition 6.4.7; 45CSR16; 40 CFR §60.486a(c) & §60.5421(a)]**

- 6.4.7. The following information pertaining to all equipment subject to the requirements in Conditions 6.1.1. and 6.1.2. shall be recorded in a log that is kept in a readily accessible location:
- a. A list of identification numbers for equipment subject to the requirements of Conditions 6.1.1.c. and 6.1.2. (Subpart VVa Components).
  - b. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482-2a(e), 60.482-3a(i), and 60.482-7a(f).
  - c. The designation of equipment as subject to the requirements of §60.482-2a(e), §60.482-3a(i), or §60.482-7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.
  - d. The dates of each compliance test as required in §§60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).
  - e. The background level measured during each compliance test.
  - f. The maximum instrument reading measured at the equipment during each compliance test.
  - g. A list of identification numbers for equipment in vacuum service.
  - h. The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.
  - i. Records of the information specified in paragraphs 40 C.F.R. §§60.486a(e)(8)(i) through (vi) for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A-7 of this part and §60.485a(b).
  - j. Date of calibration and initials of operator performing the calibration.
  - k. Calibration gas cylinder identification, certification date, and certified concentration.
  - l. Instrument scale(s) used.
  - m. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of this part.
  - n. Results of each calibration drift assessment required by §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).



- o. If the permittee makes their own calibration gas, a description of the procedure used.
- p. The connector monitoring schedule for each process unit as specified in §60.482-11a(b)(3)(v).

**[45CSR13, R13-2878 Condition 6.4.89; 45CSR16; 40 CFR §60.486a(e) & §60.5421(a)]**

6.4.8. The permittee must keep the following records when using the AWP for monitoring equipment leaks in Condition 6.2.1:

- a. Identify equipment at the facility for which the permittee has chosen to use the AWP.
- b. The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
- c. The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in 40 CFR §60.18(i)(2)(i)(A).
- d. The technical basis for the mass fraction of detectable chemicals used in the equation in 40 CFR §60.18(i)(2)(i)(B).
- e. The daily instrument check. Record the distance, per 40 CFR §60.18 (i)(2)(iv)(B), and the flow meter reading, per 40 CFR §60.18 (i)(2)(iv)(C), at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.
- f. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.
- g. The results of the annual Method 21 screening required in Condition 6.1.1.e.vi. Records must be kept for all regulated equipment specified in item a of this condition. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the 40 CFR §60.485a.

**[45CSR13, R13-2878 Condition 6.4.10; 45CSR16; 40 CFR §§60.18(i)(4)(i) though (i)(4)(vii) & §60.5421(a)]**

## 6.5. Reporting Requirements

- 6.5.1. The permittee shall submit the initial semiannual report to the Director within 6 9 months after start-up for each new process unit (~~i.e. Mobley VII, VIII, and IX~~) at the facility. Such report shall be in accordance with Condition 3.5.1. and include the following information:
  - a. Process unit identification.
  - b. Number of valves subject to the requirements of Condition 6.1.1.c.ii.

- c. Number of pumps subject to the requirements of Condition 6.1.1.c.i.
  - d. Number of connectors subject to the requirements of Condition 6.1.1.c.iii.  
**[45CSR13, R13-2878 Condition 6.5.1; 45CSR16; 40 CFR §§60.5422(a) and (b) and §§60.487a(a), (b)(1) though (b)(3) and (b)(5)]**
- 6.5.2. The permittee shall submit semiannual reports on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31 to the Director in satisfying the requirements of 40 CFR §60.5422 and §60.487a(c) for the equipment subject to Condition 6.1.1.c. Such report shall be in accordance with Condition 3.5.1. and include the following information summarized from the information required in Condition 6.4.6:
- a. Process unit identification.
  - b. For each month during the reporting period,
    - i. Number of valves for which leaks were detected as in Condition 6.1.1.c.ii.
    - ii. Number of valves for which leaks were not repaired as required in Condition 6.1.1.f.
    - iii. Number of pumps for which leaks were detected as in Condition 6.1.1.c.i.
    - iv. Number of pumps for which leaks were not repaired as required in Condition 6.1.1.f.
    - v. Number of connectors for which leaks were detected as in Condition 6.1.1.c.iii.
    - vi. Number of connectors for which leaks were not repaired as required in Condition 6.1.1.f.
    - vii. The fact that explains each delay of repair (DOR) and, where appropriate, why a process unit shutdown was technically infeasible.
  - c. Dates of process unit shutdown which occurred during the reporting period.
  - d. Revisions to items reported to Condition 6.5.1. (Initial semiannual report) if changes have occurred since the initial report or subsequent revisions to the initial report.  
**[45CSR13, R13-2878 Condition 6.5.2; 45CSR16; 40 CFR §60.5420(b), §60.5422(a) and §60.487a(c)]**
- 6.5.3. The permittee shall submit records of annual Method 21 screening as required in Condition 6.2.1.e.vi. to the Administrator via email CCC\_AWP@EPA.GOV. The permittee shall maintain records of such submittal in accordance with Condition 3.4.2.  
**[45CSR13, R13-2878 Condition 6.5.3; 45CSR16; 40 CFR §60.18(i)(5)]**
- 6.5.4. The permittee shall notify the Director when electing to change monitoring procedure or frequency of monitoring for affected equipment subject to the monitoring required in Condition 6.2.1. Such notification shall be submitted 60 days prior to implementing the change.  
**[45CSR13, R13-2878 Condition 6.5.4]**

## **6.6. Compliance Plan**

6.6.1. None.

## 7.0 Source-Specific Requirements (Emergency Generators (G-1, G-3, G-4))

### 7.1. Limitations and Standards

#### 7.1.1. Emission Standards

Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

[45CSR13, R13-2878 Condition 7.1.1.; 40CFR§60.4205(d); 45CSR16]

7.1.2. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[45CSR13, R13-2878 Condition 7.1.2; 40CFR§60.4206; 45CSR16]

#### 7.1.3. Fuel Requirements

Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

[45CSR13, R13-2878 Condition 7.1.3; 40CFR§60.4207(b); 45CSR16]

7.1.4. In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

[45CSR13, R13-2878 Condition 7.1.4; 40CFR§60.4208(h); 45CSR16]

7.1.5. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

[45CSR13, R13-2878 Condition 7.1.5; 40CFR§60.4209(a); 45CSR16]

7.1.6. If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[45CSR13, R13-2878 Condition 7.1.6; 40CFR§60.4209(b); 45CSR16]

7.1.7. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

[45CSR13, R13-2878 Condition 7.1.7; 40CFR§60.4211(a); 45CSR16]

7.1.8. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications. [45CSR13, R13-2878 Condition 7.1.8; 40CFR§60.4211(c); 45CSR16]

7.1.9. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

[45CSR13, R13-2878 Condition 7.1.9; 40CFR§60.4211(f); 45CSR16]

7.1.10. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

a. If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[45CSR13, R13-2878 Condition 7.1.10; 40 CFR §60.4211(g)(1); 45CSR16]

7.1.11. Maximum emissions from the 53 hp diesel fired emergency generator, Generac MMG45 (G-1) shall not exceed the following limits:

<u>Pollutant</u>	<u>Maximum Hourly Emissions (lb/hr)</u>	<u>Maximum Annual Emissions (ton/year)</u>
Nitrogen Oxides	0.41	0.10
Carbon Monoxide	0.43	0.11
Volatile Organic Compounds	0.41	0.10

[45CSR13, R13-2878 Condition 7.1.11]

7.1.12. Maximum emissions from each of the 58 hp diesel fired emergency generators, Generac MMG45 (G-3, G-4) shall not exceed the following limits:

<u>Pollutant</u>	<u>Maximum Hourly Emissions (lb/hr)</u>	<u>Maximum Annual Emissions (ton/year)</u>
Nitrogen Oxides	0.45	0.11
Carbon Monoxide	0.47	0.12
Volatile Organic Compounds	0.45	0.11

[45CSR13, R13-2878 Condition 7.1.12]

7.1.13. Maximum Yearly Operation Limitation. The maximum yearly hours of operation for each of the emergency generators (G-1, G-3, G-4) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-2878 Condition 7.1.13]

**7.2. Monitoring Requirements**

7.2.1. None.

**7.3. Testing Requirements**

**7.3.1. Stack Testing**

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or other tests the Secretary may specify shall be conducted to determine compliance. For cause, the Secretary may request the permittee to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports (45CSR13).

a. 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.

[45CSR13, R13-2878 Condition 7.2.1]

**7.3.2. Notification of Compliance Testing.**

For any compliance test to be conducted by the permittee as set forth in this section, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The permittee shall notify the Secretary at least fifteen (15) calendar days in advance of actual compliance test dates and times during which the test (or tests) will be conducted.

[45CSR13, R13-2878 Condition 7.2.2]

**7.3.3. Alternative Test Methods**

The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct such other tests as may be deemed necessary to evaluate air pollution emissions.

[45CSR13, R13-2878 Condition 7.2.3]

7.3.4. Owners and operators of stationary CIICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of 40 C.F.R. §60.4212.

[45CSR13, R13-2878 Condition 7.2.3; 40CFR§60.4212; 45CSR16]

**7.4. Recordkeeping Requirements**

7.4.1. Equipment Maintenance Records. The permittee shall maintain maintenance records relating to failure and/or repair of the emergency generators. In the event of equipment or system failure, these records shall document the permittee's effort to maintain proper and effective operation of such equipment and/or systems. [45CSR13, R13-2878 Condition 7.3.2]

- 7.4.2. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to nonemergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [45CSR13, R13-2878 Condition 7.3.4; 40CFR§60.4214(b); 45CSR16]
- 7.4.3. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [45CSR13, R13-2878 Condition 7.3.5; 40CFR§60.4214©; 45CSR16]
- 7.4.4. To demonstrate compliance with section 7.1.13, the permittee shall maintain records of the hours of operation of the emergency generators (G-1, G-3, G-4). Said records 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. [45CSR13, R13-2878 Condition 7.3.6]

## 7.5. Reporting Requirements

### 7.5.1. Compliance Testing

The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Section 7.0. [45CSR13, R13-2878 Condition 7.3.3]

## 7.6. Compliance Plan

7.6.1. None.

## 8.0 Source-Specific Requirements (Emergency Generator, G-2)

### 8.1. Limitations and Standards

8.1.1. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

4. (iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

[45CSR13, R13-2878 Condition 8.1.1; 40CFR§60.4230(a); 45CSR16]

8.1.2. Maximum emissions from the 75 hp natural gas fired emergency generator, Kohler 40ERES (G-2) shall not exceed the following limits:

<u>Pollutant</u>	<u>Maximum Hourly Emissions (lb/hr)</u>	<u>Maximum Annual Emissions (ton/year)</u>
<u>Nitrogen Oxides</u>	<u>0.33</u>	<u>0.08</u>
<u>Carbon Monoxide</u>	<u>0.50</u>	<u>0.12</u>
<u>Volatile Organic Compounds</u>	<u>0.17</u>	<u>0.04</u>

[45CSR13, R13-2878 Condition 8.1.2]

8.1.3. Maximum Yearly Operation Limitation. The maximum yearly hours of operation for the emergency generator (G-2) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.  
[45CSR13, R13-2878 Condition 8.1.3]

### 8.2. 40CFR60 Subpart JJJJ Emission Standards for Owners and Operators

8.2.1. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.  
[45CSR13, R13-2878 Condition 8.2.1; 40CFR§60.4233(d); 45CSR16]

8.2.2. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.  
[45CSR13, R13-2878 Condition 8.2.2, 40CFR§60.4236(c); 45CSR16]

8.2.3. If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.  
[45CSR13, R13-2878 Condition 8.2.3, 40CFR§60.4237(c); 45CSR16]



- 8.2.4. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [45CSR13, R13-2878 Condition 8.2.4; 40CFR§60.4234; 45CSR16]

### **8.3. Compliance Requirements for Owners and Operators**

- 8.3.1. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [45CSR13, R13-2878 Condition 8.3.1; 40CFR§60.4243(d); 45CSR16]

### **8.4. Testing Requirements for Owners and Operators**

- 8.4.1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance. [45CSR13, R13-2878 Condition 8.4.1; 40CFR§60.4243(b)(2)(i); 45CSR16]
- 8.4.2. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.
- Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40CFR§60.4244(a)]
  - You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40CFR§60.4244(b)]
  - You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]
  - To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912×10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

**[40CFR§60.4244(d)]**

- e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{(Eq. 2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub> = Measured CO concentration in ppmv.

1.164 × 10<sup>-3</sup> = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

**[40CFR§60.4244(e)]**

- f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP-hr} \quad \text{(Eq. 3)}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub> = VOC concentration measured as propane in ppmv.

1.833 × 10<sup>-3</sup> = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

**[40CFR§60.4244(f)]**

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the

measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

RF<sub>i</sub>= Response factor of compound i when measured with EPA Method 25A.

C<sub>Mi</sub>= Measured concentration of compound i in ppmv as carbon.

C<sub>Ai</sub>= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (\text{Eq. 5})$$

Where:

C<sub>icorr</sub>= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C<sub>imeas</sub>= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \quad (\text{Eq. 6})$$

Where:

C<sub>Peq</sub>= Concentration of compound i in mg of propane equivalent per DSCM.  
[40CFR§60.4244(g)]

[45CSR13, R13-2878 Condition 8.4.2; 45CSR16]

## 8.5. Notification, Reports, and Records for Owners and Operators

- 8.5.1. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.
- a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
    1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
    2. Maintenance conducted on the engine.
    3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
    4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.  
[40CFR§60.4245(a)]
  - b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP

manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40CFR§60.4245(b)]

- c. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

**[45CSR13, R13-2878 Condition 8.5.1; 45CSR16]**

- 8.5.2. To demonstrate compliance with section 8.1, the permittee shall maintain records of the hours of operation of the emergency generator (G-2). Said records 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. [45CSR13, R13-2878 Condition 8.5.2]

## 9.0 Source-Specific Requirements (Blowdown Operations)

### 9.1. Limitations and Standards

- 9.1.1. The maximum number of facility blowdown events per year shall not exceed 365, with an estimated 254,675 scf per event (92,956,358 scf/year). Compliance shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the blowdown events at any given time during the previous twelve consecutive calendar months.  
**[45CSR13, R13-2878 Condition 9.1.1]**
- 9.1.2. The facility blowdown events shall be controlled by the process flare (FL-991). The flare shall reduce the volatile organic compounds and hazardous air pollutants emissions by 98%. The flare shall meet the operating requirements in permit conditions 6.1.2 and 6.1.3.  
**[45CSR13, R13-2878 Condition 9.1.2]**
- 9.1.3. The maximum number of compressor (C-102, C-103) blowdown events per year shall not exceed 36, with an estimated 2,200 scf per event (158,400 scf/year). Compliance shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the blowdown events at any given time during the previous twelve consecutive calendar months.  
**[45CSR13, R13-2878 Condition 9.1.3]**
- 9.1.4. The maximum number of compressor (CM-1001, CM-1003, CM-1004, CM-1005, CM-1006) blowdown events per year shall not exceed 36, with an estimated 920 scf per event (165,600 scf/year). Compliance shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the blowdown events at any given time during the previous twelve consecutive calendar months.  
**[45CSR13, R13-2878 Condition 9.1.4]**
- 9.1.5. The total VOC emissions from the blowdown events shall not exceed the following limits:
- The combined blowdown events from C-102, C-103 shall not exceed 0.59 tons per year.
  - The combined blowdown events from CM-1001, CM-1003, CM-1004, CM-1005, CM-1006 shall not exceed 0.61 tons per year.
  - The facility blowdown events shall not exceed 7.82 tons per year.

**[45CSR13, R13-2878 Condition 9.1.5]**

### 9.2. Recordkeeping Requirements

- 9.2.1. All records required under section 9.2 of this permit shall be kept in accordance with permit condition 3.4.2.  
**[45CSR13, R13-2878 Condition 9.2.1]**
- 9.2.2. To demonstrate compliance with permit conditions 9.1.1 – 9.1.5, the permittee shall maintain a record of the blowdown events and estimated volume per event (scf) on a monthly and rolling twelve month total.  
**[45CSR13, R13-2878 Condition 9.2.2]**

### 9.3. Reporting Requirements

- 9.3.1. Any exceedance of permit conditions 9.1.1 – 9.1.5 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 exceedance, the estimate of VOC emissions released to the atmosphere as a result of the exceedance and any corrective measures taken or planned.  
**[45CSR13, R13-2878 Condition 9.3.1]**