

# Permit to Modify



**R13-3030**

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

*Issued to:*  
**CNX Gas Company, LLC**

**041-00011**

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*John A. Benedict*  
*Director*

*Issued: DRAFT*

This permit will supercede and replace Permit R13-2837B.

Facility Location: 1334 Valley Chapel Road  
Valley Chapel, Lewis County, West Virginia

Mailing Address: 445 West Main Street  
Clarksburg, WV 26301

Facility Description: Natural Gas Compression Station

NAICS Codes: 486210

UTM Coordinates: 543.6 km Easting • 4,328.7 km Northing • Zone 17

Permit Type: Modification

Description of Change: Installation of oxidation catalyst on the exhaust of compressor engine #3 (EN3) and correct the model number of the engine listed in the permit.

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [ §§22B-1-1 et seq. ], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.*

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*The source is not subject to 45CSR30.*

**Table of Contents**

**1.0. Emission Units ..... 4**

**1.1 Control Device ..... 4**

**2.0. General Conditions..... 5**

    2.1. Definitions .....5

    2.2. Acronyms.....5

    2.3. Authority.....6

    2.4. Term and Renewal .....6

    2.5. Duty to Comply .....6

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

    2.7. Duty to Supplement and Correct Information.....6

    2.8. Administrative Update .....7

    2.9. Permit Modification.....7

    2.10 Major Permit Modification .....7

    2.11. Inspection and Entry .....7

    2.12. Emergency .....7

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

    2.14. Suspension of Activities .....8

    2.15. Property Rights .....8

    2.16. Severability .....8

    2.17. Transferability.....9

    2.18. Notification Requirements .....9

    2.19. Credible Evidence.....9

**3.0. Facility-Wide Requirements..... 10**

    3.1. Limitations and Standards .....10

    3.2. Monitoring Requirements .....10

    3.3. Testing Requirements .....10

    3.4. Recordkeeping Requirements .....11

    3.5. Reporting Requirements .....12

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

    4.1. Limitations and Standards .....14

    4.2. Monitoring Requirements .....17

    4.3. Testing Requirements .....18

    4.4. Recordkeeping Requirements .....19

    4.5. Reporting Requirements .....21

**5.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements) ..... 23**

    5.1. Limitations and Standards .....23

    5.2. Compliance Requirements .....23

    5.3. Testing Requirements .....23

    5.4. Recordkeeping .....25

    5.5. Reporting .....26

**CERTIFICATION OF DATA ACCURACY..... 27**

**1.0. Emission Units**

<b>Emission Unit ID</b>	<b>Emission Point ID</b>	<b>Emission Unit Description</b>	<b>Year Installed</b>	<b>Design Capacity</b>	<b>Control Device</b>
EN03		Caterpillar G3516 Compressor Engine	2004	1,150 HP	catalytic converter
EN04	CC01	Caterpillar G3516B Compressor Engine	2012	1,183 bhp	catalytic converter
GE01	CC02	Cummins Auxiliary Generator WSG-1068	2012	131.6 bhp	three-way catalyst
RBR02	RBR02	TEG Dehydrator Reboiler	2011	1.104 MMBTU/hr	None
DEHY02	F2	Regenerator Still Vent	2011	23 MMSCF/day	Flare F2

**1.1 Control Device**

<b>Control Device ID</b>	<b>Control Device</b>	<b>Emission Unit</b>	<b>Pollutant</b>	<b>Control Efficiency</b>
F2	F2	Flare (4 MMBTU/hr)	Volatile Organic Compounds	95%
CC01	Miratech Oxidation Catalyst	Caterpillar G3516B (EN04)	Carbon Monoxide	22%
CC03	DLC American Oxidation Catalyst	Caterpillar G3516 (EN03)	Carbon Monoxide	To 47 ppm
CC02	Three-Way Catalyst	Cummins Auxiliary Generator (GE01)	Volatile Organic Compounds	99%
			Nitrogen Oxides	91%
			Carbon Monoxide	95%

## 2.0. General Conditions

### 2.1. Definitions

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

### 2.2. Acronyms

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

### **2.3. Authority**

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

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

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

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2837B. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

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

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2837, R13-2837A, R13-2837B, R13-2837C, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;  
**[45CSR§§13-5.11 and 10.3.]**
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

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

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

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

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

## **2.8. Administrative Update**

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.  
[45CSR§13-4.]

## **2.9. Permit Modification**

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.  
[45CSR§13-5.4.]

## **2.10 Major Permit Modification**

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.  
[45CSR§13-5.1]

## **2.11. Inspection and Entry**

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

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

## **2.12. Emergency**

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
  - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

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

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

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

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

### **2.15. Property Rights**

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

### **2.16. Severability**

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

### **2.17. Transferability**

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

### **2.18. Notification Requirements**

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

### **2.19. Credible Evidence**

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

### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40CFR§61.145(b) and 45CSR§34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.  
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.  
[45CSR§11-5.2.]

#### 3.2. Monitoring Requirements

*[Reserved]*

#### 3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary

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

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

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

### 3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded

in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.  
[45CSR§4. *State Enforceable Only.*]

### 3.5. Reporting Requirements

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

**If to the DAQ:**  
Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street  
Charleston, WV 25304-2345

**If to the US EPA:**  
Associate Director  
Office of Enforcement and Compliance  
Assistance  
(3AP20)  
U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

#### 3.5.4. Operating Fee

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

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

## 4.0. Source-Specific Requirements

### 4.1. Limitations and Standards

- 4.1.1. The maximum wet natural gas throughput to the dehydration unit shall not exceed 23.0 mmscf/day. Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 4.1.2. For Flare F2 the applicant shall not cause, suffer, allow, or permit the aggregate emissions to exceed the potential to emit (pounds per hour and tons per year) recorded below:

Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (tons/yr)
Nitrogen Oxides	0.22	0.95
Carbon Monoxide	0.02	0.09
Volatile Organic Compounds	6.90	30.22
Benzene	0.11	0.49
Ethylbenzene	0.07	0.37
Hexane	0.06	0.28
Toluene	0.21	0.90
Xylene	0.45	1.98
Total HAPs	0.91	3.98

Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

- 4.1.3. For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 4.1.2., the methods specified in 40 CFR 63, Subpart HHH shall be used. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.
- 4.1.4. Flare F2 shall be designed and operated in accordance with the following:
- Flares shall be steam-assisted, air-assisted, or non-assisted.
  - Flares 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.
  - Flares shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.
  - A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

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

Where:

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

$K$ =Constant=

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

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

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

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

$n$ =Number of sample components.

- e. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 5.1.4.f. of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).
- f. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.4.e. of this section, less than the velocity  $V_{max}$ , as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity,  $V_{max}$ , for flares complying with this paragraph shall be determined by the following equation:

$$\text{Log}_{10}(V_{max}) = (H_T + 28.8) / 31.7$$

Where:

$V_{max}$ =Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

$H_T$ =The net heating value as determined in 5.1.4.d of this section

- 4.1.5 The applicant is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 4.3.2., but the applicant is required to conduct a flare design evaluation in accordance with section 4.1.4. Alternatively, the applicant may elect to demonstrate compliance with the flare design criteria requirements of section 4.1.4. by complying with the compliance assessment testing requirements of section 4.3.2.
- 4.1.6. Maximum emissions from engine EN04 shall not exceed the following:

Pollutant	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emissions (TPY)
NO <sub>x</sub>	2.61	11.42
CO	5.22	22.85
VOC	0.92	4.00
Formaldehyde	0.97	4.23

- 4.1.7. To demonstrate compliance with section 4.1.6., the permittee will have a fuel quantity limit. The quantity of pipeline quality natural gas that shall be combusted shall not exceed 10,352 cubic feet per hour or  $91 \times 10^6$  cubic feet per year. Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 4.1.8. By no later than October 19, 2013, the permittee shall comply with the following emission and operating limitation for compressor engine EN03:
- a. An oxidation catalyst shall be installed on the engine in a manner that limits the concentration of carbon monoxide to no greater than 47 ppmvd at 15% oxygen.  
**[Item 8 of Table 2d to Subpart ZZZZ of Part 63, 40 CFR§63.6603(a)]**
  - b. The engine shall be operated in a manner that maintains the temperature of the engine exhaust so the catalyst inlet temperature is greater than or equal to 450<sup>0</sup>F and less than or equal to 1350<sup>0</sup>F.  
**[Item 1 of Table 2b to Subpart ZZZZ of Part 63, 40 CFR§63.6603(a)]**
  - c. The catalyst shall maintain in such a manner that the pressure drop across the catalyst does not change by more than two (2) inches of water column at 100% load with a tolerance of  $\pm 10\%$ , from the pressure drop measured during the initial performance test.  
**[Item 1 of Table 2b to Subpart ZZZZ of Part 63, 40 CFR§63.6603(a)]**
- 4.1.9. The maximum hours of operation of Emergency Generator GE01 shall not exceed 500 hours per year. Compliance with this limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.
- 4.1.10. Requirements for Use of Catalytic Reduction Devices CC01 and CC02.
- a. Catalyst CC01 and Catalyst CC02 shall be fitted with a closed-loop automatic feedback controller. This closed-loop automatic feedback controller shall ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/oxidation catalyst combination under varying loading.
  - b. The closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with engine ignition system to cease engine operation in case of masking, poisoning, or over rich air/fuel ratio situations which results in performance degradation or failure of the catalyst element.
  - c. No person shall knowingly:
    1. Remove or render inoperative catalyst CC01 or catalyst CC02.
    2. Install any part or component with the principal effect of the part or component is to bypass, defeat, or render inoperative Catalyst CC01 or Catalyst CC02.
    3. Cause or allow engine exhaust to bypass Catalyst CC01 or Catalyst CC02.
- 4.1.11. **Flare Opacity Limit** – No Person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator F2 which is twenty (20%) percent opacity or greater.  
**[45CSR§6-4.3]**
- 4.1.12. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator F2 which are large enough to be individually distinguished in the open air.  
**[45CSR§6-4.5]**
- 4.1.13. Incinerator F2, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

**[45CSR§6-4.6]**

- 4.1.14. **Reboiler Opacity Limit.** The permittee shall not meet or exceed 10% opacity based on a six minute block average for Reboiler RBR02.

**[45CSR§2-3.1.]**

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

**[45CSR§13-5.11.]**

**4.2. Monitoring Requirements**

- 4.2.1. In order to demonstrate compliance with the requirements of Section 4.1.4.c, the applicant shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.
- 4.2.2. To demonstrate compliance with 4.1.1, the permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for each glycol dehydration unit listed in the issued General Permit Registration.
- 4.2.3. Catalytic Oxidizer Control Devices
- a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:
1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
  2. Following operating and maintenance recommendations of the catalyst element manufacturer.
- 4.2.4. The permittee shall install, operate, and maintain a Continuous Parameter Monitoring System (CPMS) monitoring the pressure drop and catalyst inlet temperature for the oxidation catalyst on engine EN03. Such CPMS consist of the following:
- a. The permittee shall develop a site-specific monitoring plant that address the monitoring system, design, data collection, and quality assurance and quality control outlined in the following:
- i. The performance criteria and design specification for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
  - ii. Sampling interface location such that the monitoring system will provide representative measurements;
  - iii. Equipment performance evaluations, system accuracy audits or other audit procedures;

- iv. Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR §§63.8(c), e(1); and
- v. Ongoing reporting and recordkeeping in accordance with 40 CFR §§63.10(c), (e)(1), and (e)(2).
- b. Install, operate, and maintain each CMPS in continuous operation according the procedures in the site-specific monitoring plan.
- c. The CPMS must collect data at least once every 15 minutes (see 40 CFR §63.6635).
- d. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 5<sup>0</sup>F or one percent of the measurement rate, whichever is larger
- e. The permittee shall conduct a the CPMS equipment performance evaluation, system accuracy audits or other audit procedures specific in the site-specific monitoring plan at least annually.
- f. The permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

**[40 CFR §63.6625(b), and (b)(1) through (b)(6)]**

The permittee shall monitor continuously at all time that engine EN03 is operating expect for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report operating levels. The permittee must use all the valid data collected during all other periods.

**[40 CFR §63.6635]**

Each CPMS shall be installed and performance evaluation completed prior to conducting the initial testing as required in Condition 4.3.4. of this permit. Records of the collected data, audits, evaluations, and monitoring plan shall be maintained in accordance with Condition 3.4.1. of the permit.

### **4.3. Testing Requirements**

- 4.3.1. In order to demonstrate compliance with the flare opacity requirements of 4.1.4.b the applicant shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The applicant shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.
- 4.3.2. The Director may require the applicant to conduct a flare compliance assessment to demonstrate compliance with section 4.1.4. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to

40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the applicant to conduct Test Method 4 in conjunction with Test Method 18.

- 4.3.3. In order to demonstrate compliance with 4.1.3., upon request of the Director, the applicant shall demonstrate compliance with the HAP emissions thresholds using GLYCalc Version 3.0 or higher. The applicant shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook.
- 4.3.4. By no later than April 17, 2014, the permittee shall conduct an initial compliance demonstration to comply with the CO limitation of Condition 4.1.8.a. for engine EN03. Such demonstration be in accordance of Method 1, or 1A for sampling port location and number of traverse points; Method 3, 3A (Appendix A of Part 60), 320 (Appendix A of Part 63) or ASTM D 6348-03 to measure the moisture content of the exhaust at the sampling port location; Method 10 (Appendix A of Part 60), Method 320 (Appendix A of Part 63), ASTM Method D6522-00 (2005), or ASTM D6348-03 for the measurement of CO in the exhaust of the RICE; and Condition . This demonstration shall consist of three 1-hour longer runs with compliance determine on the average CO concentration on a dry basis and corrected to 15 % O<sub>2</sub> of these three runs. Catalyst pressure drop and catalyst inlet temperature shall be recorded during each of these test runs. During such testing, the permittee shall establish the catalyst pressure drop operating limitation.  
[40 CFR §§63.6612(a); 6620, 6630; Item 3 of Table 4 to Subpart ZZZZ of Part 63, Item 2 of Table 5 to Subpart ZZZZ of Part 63]
- 4.3.5. The permittee shall conduct subsequent performance test every 8,760 hours of operation of engine EN03 or every three years from the previous test, whichever comes first for demonstration compliance with the CO limitation in 4.1.8.a. for engine EN03. The timing of subsequent testing shall commence once the initial demonstration in Condition 4.3.4. had been conduct. Such test(s) is to be conducted in accordance with the methods and procedures outline in Condition 4.3.4.  
[40 CFR §63.6615, Table 3 to Subpart ZZZZ of Part 63]

#### 4.4. Recordkeeping Requirements

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

- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
  - b. Steps taken to minimize emissions during the event.
  - c. The duration of the event.
  - d. The estimated increase in emissions during the event.

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

- e. The cause of the malfunction.
  - f. Steps taken to correct the malfunction.
  - g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- 4.4.4. For the purpose of demonstrating compliance with section 4.1.4.c and 4.2.1, the applicant shall maintain records of the times and duration of all periods which the pilot flame was absent.
- 4.4.5. For the purpose of demonstrating compliance with section 4.1.4 and 4.3.2, the applicant shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.
- 4.4.6. For the purpose of demonstrating compliance with the requirements set forth in sections 4.1.4 and 4.3.3., the applicant shall maintain records of testing conducted in accordance with 4.3.3.
- 4.4.7. The permittee shall document and maintain the corresponding records specified by the on-going monitoring requirements of 4.2 and testing requirements of 4.3.
- 4.4.8. For the purpose of demonstrating compliance with section 4.1.4.b, the applicant shall maintain records of the visible emission opacity tests conducted per Section 4.3.1.
- 4.4.9. For the purpose of demonstrating compliance with section 4.1.3., the applicant shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.
- 4.4.10. The permittee shall maintain a record of the wet natural gas throughput through the dehydration system to demonstrate compliance with the natural gas throughput limit set forth in 4.1.1.
- 4.4.11. To demonstrate compliance with section 4.1.7. and 4.1.8., the permittee shall maintain monthly and annual records of the quantity and type of fuel consumed and hours of operation in engine EN04 and emergency generator GE01. 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.

- 4.4.12. All records required under Section 4.4. shall be maintained on site or in a readily accessible off-site location maintained by the applicant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

#### 4.5. Reporting Requirements

- 4.5.1. If applicant is required by the Director to demonstrate compliance with section 4.3.2., then the applicant shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The applicant shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.
- 4.5.2. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
- 4.5.3. Any deviation(s) from the flare design and operation criteria in Section 4.1.4 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of discovery of such deviation.
- 4.5.5. The permittee shall submit to the Director before the close of business on the 60<sup>th</sup> day following the completion of the initial performance demonstration as required in Condition 4.3.4. according to 40 CFR 63.10(d)(2) a "Notification of Compliance Status" in accordance with 40 CFR §63.(h)(2)(ii). Such notice shall include performance test result of the initial demonstration. **[40 CFR §63.6645(h)(2)]**
- 4.5.6. The permittee shall submit semi-annual compliance report with regards to the emission and operating limitations in Condition 4.1.8. for engine EN03. The first compliance report covering the period from October 19, 2013 to December 31, 2013 must be postmarked or delivered by no later than January 31, 2014. Subsequent Compliance reports must cover the semiannual reporting period from January 1 through June 30 and July 1 through December 31. These subsequent reports must be postmarked or delivered by no later than July 31 or January 3, whichever date is the first date following the end of the semiannual reporting period. Such reports shall contain the following information:
- a. The permittee name and address.
  - b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - c. Date of report and beginning and ending dates of the reporting period.
  - d. If any malfunction occurred, the number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken during the malfunction of an affected source to minimize emission in accordance with 40 CFR §63.6605(b), including actions taken to correct a malfunction.

- e. If no deviations of any emission or operating limitation that applies to engine EN03 occurred, a statement that there were no deviations from the emission or operating limitation during the reporting period.
- f. If there were no periods during which the CPMS was “out-of-control”, as specified in 40 CFR §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.
- g. For each deviation from an emission or operating limitation that occurs for engine EN03, the permittee shall include the following information for each deviation:
  - i. The date and time that each malfunction started and stopped.
  - ii. The date, time, and duration that each CPMS was inoperative, except for zero (low-level) and high-level checks.
  - iii. The date, time, and duration that each CPMS was out-of-control, including the information in 40 CFR §63.8(c)(8).
  - iv. The date, time, and duration that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
  - v. A summary of the total duration of deviation during the reporting period, and total duration as a percent of the total source operating time during that reporting period.
  - vi. A breakdown of the total duration of the deviation during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
  - vii. A summary of the total duration of CPMS downtime during the reporting period, and the total duration of CPMS downtime as a percent of the total operating time of engine EN03 at which the CPMS downtime occurred during that reporting period.
  - viii. An identification of each parameter and pollutant that was monitored at the engine.
  - ix. A brief description of the engine.
  - x. A brief description of the CPMS.
  - xi. The date of the latest CPMS certification or audit.
  - xii. A description of any changes in the CPMS, processes, or controls since the last reporting period.

**[40 CFR §63.6650]**

## 5.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements)

### 5.1. Limitations and Standards

- 5.1.1. Engine EN04 shall meet the following emission standards in g/bhp-hr: NO<sub>x</sub>, 1.0; CO, 2.0; and VOC, 0.7.  
[40CFR§60.4233(e)]
- 5.1.2. Engine GE01 shall meet the following emission standards in g/bhp-hr: NO<sub>x</sub>, 2.0; CO, 4.0; and VOC 1.0.  
[40CFR§60.4233(e)]
- 5.1.3. Engines EN04 and GE01 shall be operated and maintained to achieve the emission standards over the entire life of the engine.  
[40CFR§60.4234]

### 5.2. Compliance Requirements

- 5.2.1. For Engine EN04 the permittee shall 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, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.  
[40CFR§60.4243(b)(2)(ii)]
- 5.2.2. It is expected that the air-to-fuel ratio (AFR) controllers will be used with the operation of Catalyst CC02. The AFR controller for Catalyst CC02 must be maintained and operated in a manner to ensure proper operation of the engine and control device to minimize emissions at all times.  
[40CFR§60.4243(g)]
- 5.2.3. The permittee must keep records of conducted maintenance to demonstrate compliance of Engine GE01.  
[40CFR§60.4243(a)(1)]

### 5.3. Testing Requirements

To demonstrate compliance with section 5.1.1., the permittee shall conduct the following testing.

- 5.3.1. The permittee shall conduct performance tests following the procedures in paragraphs (a) through (g) of this section.
  - a. Each performance test shall 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)]
  - b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, it is not necessary to start up the engine solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine.  
[40CFR§60.4244(b)]

- c. The permittee shall conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]
- d. 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.

$C_d$  = VOC concentration measured as propane in ppmv.

$1.833 \times 10^{-3}$  = 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 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:

$RF_i$  = Response factor of compound i when measured with EPA Method 25A.

$C_{Mi}$  = Measured concentration of compound i in ppmv as carbon.

$C_{Ai}$  = True concentration of compound i in ppmv as carbon.

$$C_{i\text{corr}} = RF_i \times C_{i\text{meas}} \quad (\text{Eq. 5})$$

Where:

$C_{i\text{corr}}$  = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

$C_{i\text{meas}}$  = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

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

Where:

$C_{\text{Peq}}$  = Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

## 5.4. Recordkeeping

The permittee shall keep the following records pursuant to section 3.4.1.

**[40CFR§60.4245(a)]**

- 5.4.1. All notifications to comply with 40CFR60 Subpart JJJJ and all documentation supporting any notification.
- 5.4.2. Maintenance conducted on Engine EN04 and Engine GE01.
- 5.4.3. Documentation demonstrating that EN04 and GE01 meet the emission standards set forth in 5.1.1. and 5.1.2.

**5.5. Reporting**

- 5.5.1 The permittee shall submit an initial notification to the Director of the Division of Air Quality as required by §60.7(a)(1) and include the following.

**[40CFR§60.4245(c)]**

- 5.5.1.2. Name and address of the owner or operator,
- 5.5.1.2. The address of the affected source,
- 5.5.1.3. Make, model, engine family, serial number, model year, maximum engine power, and engine displacement.
- 5.5.1.4. Emission control equipment.
- 5.5.1.5. Fuel used.
- 5.5.2. The permittee shall submit a copy of each performance test as conducted in accordance with §60.4244 to the Director of the Division of Air Quality within 60 days after the test has been completed.

### CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true, accurate, and complete.

Signature<sup>1</sup> \_\_\_\_\_  
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title \_\_\_\_\_  
(please print or type) Name Title

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

<sup>1</sup> This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
  - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.