West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify

R13- 3171A

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:

Stone Energy Corporation
Howell Well Pad Production Facility
103-00082

William F. Durham
Director

Issued: February 2, 2015

Facility Location:	near New Martinsville, Wetzel County, West Virginia
Mailing Address:	6000 Hampton Center, Suite B, Morgantown, WV 26505
Facility Description:	Natural gas production facility
NAICS Codes:	211111
UTM Coordinates:	517.6642 km Easting • 4,382.9305 km Northing • Zone 17
Permit Type:	Modification
Description of Change:	Install a 97.7 Hp, natural gas-fired, emergency generator engine/set.

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

The source is not subject to 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CE-1	1E	Flash Gas Compressor Engine Cummins GTA855	2014	225 hp	1C NSCR
CE-2	2E	Flash Gas Compressor Engine Cummins GTA855	2014	255 hp	2C NSCR
VCU-1	3E-A	Thermal Oxidizer	2014	100 MSCFD	N/A
VCU-2	3E-B	Thermal Oxidizer	2014	100 MSCFD	N/A
-	-	Truck Loading	2014	10 MMGal/yr	VCU-1 / VCU-2
T05-06	4E	Produced Water Tanks	2014	400 bbl	None
GN-1	5E	Generator Engine	2014	25 hp	None
GN-2	6E	Generator Engine	2014	25 hp	None
GN-3	10E	Generator Engine	2014	637 hp	3C SCR
GN-4	12E	Emergency Generator Engine/Set	2014	97.7 hp	(1)None
T01-04	-	Condensate Tanks	2014	400 bbl	CE-3/CE-4 VCU-1/VCU-2
HTR-1	7E	Ten Line Heaters	2014	0.75 MMBtu/hr (each)	None
HTR-2	11E	Two Condensate Heaters	2014	0.75 MMBtu/hr (each)	None
CE-3	8E	VRU Compressor Engine Cummins G8.3	2014	118 hp	4C NSCR
CE-4	9E	VRU Compressor Engine Cummins G8.3	2014	118 hp	5C NSCR
-	-	Fugitive Emissions	2014	N/A	None

(1) Electronic Air/Fuel Controller & Closed-loop Breather System.

1.1. Control Devices

Emission Unit	Pollutant	Control Device	Control Efficiency
CE-1 Flash Gas Compressor Engine Cummins GTA855	NOx	1C NSCR	92%
	CO		31%
CE-2 Flash Gas Compressor Engine Cummins GTA855	NOx	2C NSCR	92%
	CO		77%
Truck Loading	VOC	VCU-1, VCU-2 Vapor Combustors	98%
	HAPs		
T01-04 Condensate Tanks	VOC HAPs	CE-3/CE-4 VRU Compressor Engines	99%
	VOC HAPs	VCU-1, VCU-2 Vapor Combustors	98%
GN-3 Generator Engine	CO	3C NSCR	20%
	VOC		50%
CE-3 VRU Compressor Engine Cummins G8.3	NOx	4C NSCR	85%
	CO		53%
CE-4 VRU Compressor Engine Cummins G8.3	NOx	5C NSCR	85%
	CO		53%

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

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

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_X**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**$PM_{2.5}$**	Particulate Matter less than 2.5 μm in diameter
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	**Ppb**	Pounds per Batch
C.S.R. *or* CSR	Codes of State Rules	**Pph**	Pounds per Hour
DAQ	Division of Air Quality	**Ppm**	Parts per Million
DEP	Department of Environmental Protection	**Ppm_V or ppmv**	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	**PSD**	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	**Psi**	Pounds per Square Inch
HAP	Hazardous Air Pollutant	**SIC**	Standard Industrial Classification
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
M	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
MDHI	Maximum Design Heat Input	**USEPA**	United States Environmental Protection Agency
MM	Million	**UTM**	Universal Transverse Mercator
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**VEE**	Visual Emissions Evaluation
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**VOC**	Volatile Organic Compounds
NA	Not Applicable	**VOL**	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

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

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

2.4. Term and Renewal

2.4.1. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any 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 Applications R13-3171, R13-3171A 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;

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. 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. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

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

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

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

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

3.5.4. **Operating Fee**

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

3.5.4.2. In accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for a Certificate to Operate (CTO), from the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the Application for a Certificate to Operate (CTO).

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. **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.

4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the facility shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the control devices listed in Section 1.1 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.]

4.1.4. **Record of Malfunctions of Air Pollution Control Equipment.** For the control devices listed in Section 1.1, 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.

5.0. Source-Specific Requirements (Engines, CE-1, CE-2, CE-3, CE-4, GN-1, GN-2, GN-3, GN-4)

5.1. Limitations and Standards

5.1.1. The quantity of natural gas that shall be consumed in each of the 225 hp natural gas fired reciprocating engines; Cummins GTA855 (CE-1, CE-2) shall not exceed 1,508 cubic feet per hour or 13.2 x 10^6 cubic feet per year.

5.1.2. Maximum emissions from each of the 225 hp natural gas fired reciprocating engines; Cummins GTA855 (CE-1, CE-2) shall not exceed the following limits:

Table 5.1.2: Emission Limits for 225 hp Engines (CE-1, CE-2)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.50	2.17
Carbon Monoxide	0.99	4.35
Volatile Organic Compounds	0.35	1.52
Formaldehyde	0.05	0.22

5.1.3. The quantity of natural gas that shall be consumed in each of the 25 hp natural gas fired reciprocating engines; Power Solutions 1.6L (GN-1, GN-2) shall not exceed 201 cubic feet per hour or 1.76 x 10^6 cubic feet per year.

5.1.4. Maximum emissions from each of the 25 hp natural gas fired reciprocating engines; Power Solutions 1.6L (GN-1, GN-2) shall not exceed the following limits:

Table 5.1.4: Emission Limits for 225 hp Engines (GN-1, GN-2)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.20	0.87
Carbon Monoxide	1.38	6.05
Volatile Organic Compounds	0.08	0.37
Formaldehyde	0.01	0.01

5.1.5. The quantity of natural gas that shall be consumed in each of the 637 hp natural gas fired reciprocating engines; Caterpillar 3412 (GN-3) shall not exceed 4,588 cubic feet per hour or 40.2 x 10^6 cubic feet per year.

5.1.6. Maximum emissions from the 637 hp natural gas fired reciprocating engine; Caterpillar 3412 (GN-3) shall not exceed the following limits:

Table 5.1.6: Emission Limit for 637 hp Engine (GN-3)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	1.40	6.15
Carbon Monoxide	2.77	12.12
Volatile Organic Compounds	0.31	1.35
Formaldehyde	0.20	0.86

5.1.6.1. The quantity of natural gas that shall be consumed in the 98 hp natural gas-fired reciprocating engine: Ford WSG-1068 (GN-4) shall not exceed 707 cubic feet per hour or 0.35×10^6 cubic feet per year.

5.1.6.2. Maximum emissions from the 98 hp natural gas-fired reciprocating engine: Ford WSG 1068 (GN-4) shall not exceed the following limits:

Table 5.1.6.2: Emission Limit for 98 hp Engine (GN-4)

Pollutant	Maximum Hourly Emissions (lb/hr)	[(1)]Maximum Annual Emissions (ton/year)
Nitrogen Oxides	1.51	0.38
Carbon Monoxide	83.36	20.84
Volatile Organic Compounds	0.65	0.16
(1) Based on a maximum of 500 hr/yr of operation.		

5.1.7. The quantity of natural gas that shall be consumed in each of the 118 hp natural gas fired reciprocating engines; Cummins G8.3 (CE-3, CE-4) shall not exceed 750 cubic feet per hour or 6.57×10^6 cubic feet per year.

5.1.8. Maximum emissions from each of the 118 hp natural gas fired reciprocating engines; Cummins G8.3 (CE-3, CE-4) shall not exceed the following limits:

Table 5.1.8: Emission Limits for 118 hp Engines (CE-3, CE-4)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.26	1.14
Carbon Monoxide	0.52	2.28
Volatile Organic Compounds	0.03	0.13
Formaldehyde	0.02	0.09

5.1.9. Requirements for Use of Catalytic Reduction Devices

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

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; and

d. No person shall knowingly:

1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of General Permit G30-D;
2. 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 General Permit G30-D; or
3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

5.2. Monitoring Requirements

5.2.1. The permittee shall monitor the amount of natural gas consumed in the engines listed in Section 5.1 on a monthly and yearly basis.

5.2.2. Catalytic Oxidizer Control Devices

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

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
2. Following operating and maintenance recommendations of the catalyst element manufacturer.

5.3. Testing Requirements

5.3.1. See Facility-Wide Testing Requirements Section 3.3 and Testing Requirements of Section 7.5.

5.4. Recordkeeping Requirements

5.4.1. To demonstrate compliance with Section 5.1, the permittee shall maintain records of the amount natural gas consumed in each engine, the hours of operation of each engine and maintenance records for the catalytic oxidizers and engines.

5.5. Reporting Requirements

5.5.1. See Facility-Wide Reporting Requirements Section 3.5 and Reporting Requirements of Sections 7.5.

6.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements, CE-1, CE-2, CE-3, CE-4, GN-1, GN-2, GN-3, GN-4)

6.1. Limitations and Standards

6.1.1. The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

a. on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP; [40CFR§60.4230(a)(4)(ii)] *(GN-3)*

b. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured: on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; [40CFR§60.4230(a)(4)(iii)] *(CE-1, CE-2, CE-3, CE-4, GN-1, GN-2, GN-4)*

6.1.2. If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable. [40CFR§60.4230(c)]

6.2. Emission Standards

6.2.1. Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE. [40CFR§60.4233(a)] *(GN-1, GN-2)*

6.2.2. Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

Table 6.2.2: Emission Standards for GN-1, GN-2

If engine displacement is * * *	and manufacturing dates are * * *	the engine must meet emission standards and related requirements for nonhandheld engines under * * *
(4) at or above 225 cc	January 1, 2011 or later	40 CFR part 1054.

[40CFR§60.4231(a)] *(GN-1, GN-2)*

6.2.2.1. 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. [40CFR§60.4233(d)] *(GN-4)*

Table 6.2.2.1: Emission Standards for GN-4

Equipment ID No.	Engine type and fuel	Maximum engine power	Manufacture date	Emission standards g/HP-hr			Manufacturer's Emission g/HP-hr		
				[c]NOx	CO	VOC	[c]NOx	CO	VOC
GN-4	Emergency	25≤HP<130	1/1/2009	10	387	N/A	10	387	N/A

[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOx +HC

6.2.3. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified. *(GN-1, GN-2)*

Table 6.2.3: Emission Standards for CE-1, CE-2, CE-3, CE-4, GN-3

Equipment ID No.	Engine type and fuel	Maximum engine power	Manufacture date	Emission standards g/HP-hr			Manufacturer's Emission g/HP-hr		
				NOx	CO	VOC	NOx	CO	VOC
CE-1, CE-2, CE-3, CE-4	Non-Emergency SI Natural Gas	100≤HP<500	1/1/2011	1.0	2.0	0.7	1.0	2.0	0.7
GN-3	Non-Emergency SI Lean Burn Natural Gas	500≤HP<1,350	7/1/2010	1.0	2.0	0.7	1.0	1.97	0.22

6.2.3. 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. [40CFR§60.4234]

6.3. Other Requirements

6.3.1. After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233. [40CFR§60.4236(a)]

6.3.2. After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010. [40CFR§60.4236(b)]

6.3.3. 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. [40CFR§60.4236(c)]

6.3.4. In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section. [40CFR§60.4236(d)]

6.3.5. The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location. [40CFR§60.4236(e)]

6.3.6. 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. [40CFR§60.4237(c)]

6.4. Compliance Requirements

6.4.1. If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(a)(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.
[40CFR§60.4243(a)(1)]

(a)(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine 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, but no performance testing is required if you are an owner or operator.
[40CFR§60.4243(a)(2)(i)] *(GN-1, GN-2)*

6.4.2. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(b)(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section. [40CFR§60.4243(b)(1)] *(GN-4)*

(b)(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) 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. [40CFR§60.4243(b)(2)(i)] *(CE-1, CE-2, CE-3, CE-4)*

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 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 and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [40CFR§60.4243(b)(2) (ii)] *(GN-3)*

6.4.2.1. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time lime on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be use for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owner and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [40CFR§60.4243(d)] *(GN-4)*

6.4.3. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [40CFR§60.4243(e)]

6.4.4. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [40CFR§60.4243(f)]

6.5. Testing Requirements for Owners and Operators

6.5.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) 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.

(b) 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.

(c) 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.

(d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section:

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

Where:
ER = Emission rate of NOX in g/HP-hr.
Cd = Measured NOX concentration in parts per million by volume (ppmv).
1.912×10−3 = Conversion constant for ppm NOX 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).

(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:

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

Where:
ER = Emission rate of CO in g/HP-hr.
Cd = Measured CO concentration in ppmv.
1.164×10−3 = 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.

(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:

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

Where:
ER = Emission rate of VOC in g/HP-hr.
Cd = VOC concentration measured as propane in ppmv.
1.833×10−3 = 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.

(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:
RFi = Response factor of compound i when measured with EPA Method 25A.
CMi = Measured concentration of compound i in ppmv as carbon.
CAi = True concentration of compound i in ppmv as carbon.

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

Where:
Cicorr = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.
Cimeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

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

Where:
CPeq = Concentration of compound i in mg of propane equivalent per DSCM.

6.6. Notification, Reports, and Records for Owners and Operators

6.6.1. 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, 1048, 1054, and 1060, as applicable.

(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)]

6.6.2. 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 §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;
(2) The address of the affected source;
(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
(4) Emission control equipment; and
(5) Fuel used. [40CFR§60.4245(c)]

6.6.3. 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)]

7.0. Source-Specific Requirements (Line Heaters, HTR-1, HTR-2)

7.1. Limitations and Standards

7.1.1. Maximum Design Heat Input. The maximum design heat input for each of the ten (10) Line Heaters (HTR-1) shall not exceed 0.75 MMBTU/hr.

7.1.2. Maximum emissions from each of the ten (10) 0.75 MMBTU/hr Line Heaters (HTR-1) shall not exceed the following limits:

Table 7.1.2: Emission Limits for Line Heaters (HTR-1)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.61	2.65
Carbon Monoxide	0.51	2.23

7.1.3. To demonstrate compliance with Section 6.1.2, the quantity of natural gas that shall be consumed in the ten (10) 0.75 MMBTU/hr Line Heaters (HTR-1) shall not exceed 6,051 cubic feet per hour and 53.0 x 10^6 cubic feet per year.

7.1.4. Maximum Design Heat Input. The maximum design heat input for each of the two (2) Condensate Heaters (HTR-2) shall not exceed 0.75 MMBTU/hr.

7.1.5. Maximum emissions from each of the two (10) 0.75 MMBTU/hr Condensate Heaters (HTR-2) shall not exceed the following limits:

Table 7.1.5: Emission Limits for Line Heaters (HTR-2)

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	0.12	0.53
Carbon Monoxide	0.10	0.45

7.1.6. To demonstrate compliance with Section 6.1.5, the quantity of natural gas that shall be consumed in the two (2) 0.75 MMBTU/hr Condensate Heaters (HTR-2) shall not exceed 1,210 cubic feet per hour and 10.6 x 10^6 cubic feet per year.

7.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1.]

7.2. Monitoring Requirements

7.2.1. For the purpose of demonstrating compliance with visible emissions limitations set forth in 7.1.7 the permit shall:

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

b. Conduct monthly Method 22 visible emission observations of the line heaters to ensure proper operation for a minimum of ten (10) minutes each month the line heater are in operation.

c. In the event visible emissions are observed in excess of the limitations given under 7.1.7, the permittee shall take immediate corrective action.

7.3. Testing Requirements

7.3.1. At the request of the Director, compliance with the visible emission requirements of section 7.1.7 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 7.1.7. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.]

7.4. Recordkeeping Requirements

7.4.1. To demonstrate compliance with Section 7.1, the permittee shall maintain records of the amount of natural gas consumed in the 0.75 MMBTU/hr Line Heaters (HTR-1) and the 0.75 Condensate Heaters (HTR-2).

7.4.2. The permittee shall maintain records of all monitoring data required by Section 7.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

7.5. Reporting Requirements

7.5.1. 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.

8.0. Source-Specific Requirements (40CFR60 Subpart OOOO Requirements, Gas Well)

8.1. Limitations and Standards

8.1.1. If you are the owner or operator of a gas well affected facility, you must comply with paragraphs (a) through (f) of this section. Except as provided in paragraph (f) of this section, for each well completion operation with hydraulic fracturing begun prior to January 1, 2015, you must comply with the requirements of paragraphs (a)(3) and (4) of this section unless a more stringent state or local emission control requirement is applicable; optionally, you may comply with the requirements of paragraphs (a)(1) through (4) of this section. For each new well completion operation with hydraulic fracturing begun on or after January 1, 2015, you must comply with the requirements in paragraphs (a)(1) through (4) of this section.

(a) (1) For the duration of flowback, route the recovered liquids into one or more storage vessels or re-inject the recovered liquids into the well or another well, and route the recovered gas into a gas flow line or collection system, re-inject the recovered gas into the well or another well, use the recovered gas as an on-site fuel source, or use the recovered gas for another useful purpose that a purchased fuel or raw material would serve, with no direct release to the atmosphere. If this is infeasible, follow the requirements in paragraph (a)(3) of this section.

(2) All salable quality gas must be routed to the gas flow line as soon as practicable. In cases where flowback emissions cannot be directed to the flow line, you must follow the requirements in paragraph (a)(3) of this section.

(3) You must capture and direct flowback emissions to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact tundra, permafrost or waterways. Completion combustion devices must be equipped with a reliable continuous ignition source over the duration of flowback.

(4) You have a general duty to safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery.

(b) You must maintain a log for each well completion operation at each gas well affected facility. The log must be completed on a daily basis for the duration of the well completion operation and must contain the records specified in § 60.5420(c)(1)(iii).

(c) You must demonstrate initial compliance with the standards that apply to gas well affected facilities as required by § 60.5410.

(d) You must demonstrate continuous compliance with the standards that apply to gas well affected facilities as required by § 60.5415.

(e) You must perform the required notification, recordkeeping and reporting as required by §60.5420.

(f) (1) For each gas well affected facility specified in paragraphs (f)(1)(i) and (ii) of this section, you must comply with the requirements of paragraphs (f)(2) and (3) of this section.

(i) Each well completion operation with hydraulic fracturing at a gas well affected facility meeting the criteria for a wildcat or delineation well.

(ii) Each well completion operation with hydraulic fracturing at a gas well affected facility meeting the criteria for a non-wildcat low pressure gas well or non-delineation low pressure gas well.

(2) You must capture and direct flowback emissions to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact tundra, permafrost or waterways. Completion combustion devices must be equipped with a reliable continuous ignition source over the duration of flowback. You must also comply with paragraphs (a)(4) and (b) through (e) of this section.

(3) You must maintain records specified in § 60.5420(c)(1)(iii) for wildcat, delineation and low pressure gas wells.
[40CFR§60.5375]

8.2. Initial Compliance Demonstration

8.2.1. You must determine initial compliance with the standards for each affected facility using the requirements in paragraph (a) of this section. The initial compliance period begins on October 15, 2012 or upon initial startup, whichever is later, and ends no later than one year after the initial startup date for your affected facility or no later than one year after October 15, 2012. The initial compliance period may be less than one full year.

(a) To achieve initial compliance with the standards for each well completion operation conducted at your gas well affected facility you must comply with paragraphs (a)(1) through (a)(4) of this section.

(1) You must submit the notification required in § 60.5420(a)(2).

(2) You must submit the initial annual report for your well affected facility as required in §60.5420(b).

(3) You must maintain a log of records as specified in § 60.5420(c)(1) for each well completion operation conducted during the initial compliance period.

(4) For each gas well affected facility subject to both § 60.5375(a)(1) and (3), you must maintain records of one or more digital photographs with the date the photograph was taken and the latitude and longitude of the well site imbedded within or stored with the digital file showing the equipment for storing or re-injecting recovered liquid, equipment for routing recovered gas to the gas flow line and the completion combustion device (if applicable) connected to and operating at each gas well completion operation that occurred during the initial compliance period. As an alternative to imbedded latitude and longitude within the digital photograph, the digital photograph may consist of a photograph of the equipment connected and operating at each well completion operation with a photograph of a separately operating GIS device within the same digital picture, provided the latitude and longitude output of the GIS unit can be clearly read in the digital photograph.
[40CFR§60.5410]

8.3. Continuous Compliance Demonstration

8.3.1. For each gas well affected facility, you must demonstrate continuous compliance by submitting the reports required by § 60.5420(b) and maintaining the records for each completion operation specified in § 60.5420(c)(1).

8.3.2. Affirmative defense for violations of emission standards during malfunction. In response to an action to enforce the standards set forth in §§ 60.5375, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at § 60.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in § 60.5420(a), and must prove by a preponderance of evidence that:

(i) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) Report. The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it

has met the requirements set forth in paragraph (h)(1) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.
[40CFR§60.5415]

8.4. Notification, Recordkeeping and Reporting Requirements

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

(1) If you own or operate a gas well, pneumatic controller or storage vessel affected facility you are not required to submit the notifications required in § 60.7(a)(1), (3), and (4).

(2) (i) If you own or operate a gas well affected facility, you must submit a notification to the Administrator no later than 2 days prior to the commencement of each well completion operation listing the anticipated date of the well completion operation. The notification shall include contact information for the owner or operator; the API well number, the latitude and longitude coordinates for each well in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983; and the planned date of the beginning of flowback. You may submit the notification in writing or in electronic format.

(ii) If you are subject to state regulations that require advance notification of well completions and you have met those notification requirements, then you are considered to have met the advance notification requirements of paragraph (a)(2)(i) of this section.
[40CFR§60.5420(a)]

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

(1) The general information specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) The company name and address of the affected facility.

(ii) An identification of each affected facility being included in the annual report.

(iii) Beginning and ending dates of the reporting period.

(iv) A certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(2) For each gas well affected facility, the information in paragraphs (b)(2)(i) through (ii) of this section.

(i) Records of each well completion operation as specified in paragraph (c)(1)(i) through (iv) of this section for each gas well affected facility conducted during the reporting period. In lieu of submitting the records specified in paragraph (c)(1)(i) through (iv), the owner or operator may submit a list of the well completions with hydraulic fracturing completed during the reporting period and the records required by paragraph (c)(1)(v) of this section for each well completion.

(ii) Records of deviations specified in paragraph (c)(1)(ii) of this section that occurred during the reporting period.
[40CFR§60.5420(b)]

8.4.3. Recordkeeping requirements. You must maintain the records identified as specified in § 60.7(f) and in paragraph (c)(1) of this section. All records must be maintained for at least 5 years.

(1) The records for each gas well affected facility as specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Records identifying each well completion operation for each gas well affected facility;

(ii) Records of deviations in cases where well completion operations with hydraulic fracturing were not performed in compliance with the requirements specified in § 60.5375.

(iii) Records required in § 60.5375(b) or (f) for each well completion operation conducted for each gas well affected facility that occurred during the reporting period. You must maintain the records specified in paragraphs (c)(1)(iii)(A) and (B) of this section.

(A) For each gas well affected facility required to comply with the requirements of § 60.5375(a), you must record: The location of the well; the API well number; the duration of flowback; duration of recovery to the flow line; duration of combustion; duration of venting; and specific reasons for venting in lieu of capture or combustion. The duration must be specified in hours of time.

(B) For each gas well affected facility required to comply with the requirements of § 60.5375(f), you must maintain the records specified in paragraph (c)(1)(iii)(A) of this section except that you do not have to record the duration of recovery to the flow line.

(iv) For each gas well facility for which you claim an exception under § 60.5375(a)(3), you must record: The location of the well; the API well number; the specific exception claimed; the starting date and ending date for the period the well operated under the exception; and an explanation of why the well meets the claimed exception.

(v) For each gas well affected facility required to comply with both § 60.5375(a)(1) and (3), records of the digital photograph as specified in § 60.5410(a)(4).
[40CFR§60.5420(c)]

9.0. Source-Specific Requirements (Truck Loading, Controlled by Vapor Combustors (VCU-1, VCU-2), Condensate Tanks (T01-T04), Controlled by Vapor Recovery Units (CE-3, CE-4) and Vapor Combustors (VCU-1, VCU-2))

9.1. Limitations and Standards

9.1.1. The Condensate Truck Loading shall be operated in accordance with the plans and specifications filed in Permit Application R13-3171.

9.1.2. The Condensate Truck Loading operations shall be controlled by Vapor Combustors (VCU-1, VCU-2) at all times during loading operations. The tanker trucks shall be certified as meeting the NSPS annual test to meet a capture efficiency of VOC of 99.2%. The Vapor Combustors (VCU-1, VCU-2) shall be designed an operated for a minimum destruction efficiency of 98%.

9.1.3. The Condensate Truck Loading operations shall not exceed 50,400 gallons per day and 10 million gallons per year.

9.1.4. The Condensate Tanks (T01-04) shall be controlled by Vapor Recovery Units (CE-3, CE-4). The Vapor Recovery Units should be operational 95% of total operation of the facility. When the Vapor Recovery Units (CE-3, CE-4) are not operational the emissions from the tank shall be vented and controlled by the Vapor Combustors (VCU-1, VCU-2).

9.1.5. The facility shall install additional sensing equipment to monitor the run status of the Vapor Recovery Units (CE-3, CE-4). If the Vapor Recovery Units (CE-3, CE-4) are non-operational, the gas well must shut in.

9.1.6. The facility will be designed to allow a by-pass system which operates automatically whereby discharge is re-routed back to the inlet of the VRU (CE-3, CE-4) until the appropriate pressure is built up for the compressor to turn on.

9.1.7. The facility will be equipped the Condensate Tanks (T01-04) with a blanket gas and have automatic throttling valves to ensure oxygen does not enter the tanks.

9.1.8. The facility will be equipped with continuous monitoring devices on the tanks to demonstrate that the gas is not escaping through pressure relief valves. The facility will be equipped with gas detection on the vents, so when gas is detected, the wells will be shut in until the issue is resolved.

9.1.9. Emissions from the Condensate Tanks (T01-04) that are recovered and routed to the Vapor Recovery Units (CE-3, CE-4) shall be designed and operated as specified in the paragraphs (a) through (c).

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

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

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

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

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

(iv) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements 10.1.10 of this section to a control device.

c. Each Condensate Tank thief hatch shall be weighted and properly seated. You must select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.
[NSPS, Subpart OOOO; 40CFR§60.5411(b)]

9.1.10. The facility shall comply with the closed vent system requirements for the Condensate Tanks as noted below.

a. You must design the closed vent system to route all gases, vapors, and fumes emitted from the material in the Condensate Tanks to the VRUs (CE-3, CE-4) or Vapor Combustors (VCU-1, VCU-2).

b. You must design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections.

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

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

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

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

(ii) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i) of this section.
[NSPS, Subpart OOOO; 40CFR§60.5411(c)]

9.1.11. The vapor combustors (VCU-1, VCU-2) 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.

9.1.12. The vapor combustors (VCU-1, VCU-2) shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.

9.1.13. The presence of a pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame in the vapor combustors (VCU-1, VCU-2).

9.1.14. The vapor combustors (VCU-1, VCU-2) are subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

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

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

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

ii. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater. [45CSR6 §4.3]

iii. The provisions of paragraph (i) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per startup.
[45CSR6 §4.4]

iv. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air. [45CSR6 §4.5]

v. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors. [45CSR6 §4.6]

vi. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director. [45CSR6 §8.2]

9.1.15. To demonstrate compliance with Section 9.1.16, the quantity of gas (waste and auxiliary) that shall be consumed by each of the vapor combustors (VCU-1, VCU-2) shall not exceed 71.5 MCFD. Compliance with this limit shall be demonstrated using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

9.1.16. Maximum emissions from each of the vapor combustors (VCU-1, VCU-2) shall not exceed the following limits:

Table 9.1.16: Vapor Combustor Emission Limits (VCU-1, VCU-2)

Pollutants	Maximum Hourly Emissions (lbs/hr)	Maximum Annual Emission (tpy)
Nitrogen Oxides (NOx)	0.61	0.18
Carbon Monoxide (CO)	3.32	0.95
Volatile Organic Compounds (VOC)	8.07	2.39

9.1.17. The maximum throughput to each of the condensate tanks (T01-04) shall not exceed 2.5 million gallons per year.

9.1.18. The maximum throughput to each of the produced water tanks (T05-06) shall not exceed 800,000 gallons per year.

9.2. Monitoring Requirements

9.2.1. For the purpose of demonstrating compliance with visible emissions limitations set forth in 9.1.11, the permittee shall:

a. Conduct an initial Method 22 visual emission observation on the vapor combustors to determine the compliance with the visible emission provisions. The permittee shall take a minimum of two (2) hours of visual emissions observation on the vapor combustors.

b. Conduct monthly Method 22 visible emission observations on the vapor combustor stacks to ensure proper operation for a minimum of ten (10) minutes each month the vapor combustors are in operation.

c. In the event visible emissions are observed in excess of the limitations given under 9.1.11, the permittee shall take immediate corrective action.

9.2.2. The permittee shall monitor the throughput of the produced water tank and condensate tank and truck loading and the throughput to each of the vapor recovery units (CE-3, CE-4) and the vapor combustors (VCU-1, VCU-2) on a monthly basis and yearly basis. Emissions shall be monitored on a monthly and yearly basis using accepted modeling.

9.2.3. To demonstrate compliance with the flame requirements, the presence of a flame shall be continuously monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

9.2.4. A continuous pressure monitor and recording of the pressure in the tanks shall be used to demonstrate compliance with 9.1.8 to demonstrate gas is not escaping through the pressure relief valves.

9.2.5. To demonstrate compliance with the closed vent system requirements of Section 9.1.9 and 9.1.10, the permittee shall:

a. Initial requirements. Conduct an initial visual, olfactory, and auditory inspection for defects that could result in air emissions within 180 days of start-up. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

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

ii. In the event that a leak or defect is detected, you must repair the leak or defect as soon as practicable. Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.

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

b. Continuous requirements. Conduct an annual visual, olfactory, and auditory inspection for defects that could result in air emissions. Defect include, but are not limited to, visible cracks, holes, or gaps in piping, loose connections; liquid leaks; or broken or missing caps or other closure devices.

i. The annual inspection shall be conducted within 365 calendar days from the date of the previous inspection or earlier.
ii. The annual inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.

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

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

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

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

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

i. You determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface.

ii. You have a written plan that requires inspection of the equipment at least once every 5 years.

9.2.6. To demonstrate compliance with the pilot flame requirements of Section 9.1.13, the permittee shall follow (i) and (ii) in addition to Section 9.2.3.

i. At a minimum frequency of once per calendar month, conduct visual inspections to confirm that the pilot is lit when vapors are being routed to the enclosed combustion device and that the continuous burning pilot flame is operating properly.

ii. For any absence of pilot flame, or other indication of smoking or improper equipment operation, you must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, you must: (1) Check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the combustor.

9.3. Testing Requirements

9.3.1. At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 CFR Part 60, Appendix A, Method 5 or other equivalent U.S. EPA approved method approved by the Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option, witness or conduct such stack tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all the necessary

sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. [45CSR6 §7.1]

9.3.2. The Secretary may conduct such other tests as the Secretary may deem necessary to evaluate air pollution emissions other than those noted above. [45CSR6 §7.2]

9.4. Recordkeeping Requirements

9.4.1. For the purpose of demonstrating compliance with Section 9.1.13, 9.2.3, and 9.2.6, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent and records of the monthly visual inspections conducted to ensure the pilot was lit and corrective actions, repairs and maintenance performed on the vapor combustors (VCU-1, VCU-2).

9.4.2. For the purpose of demonstrating compliance with Section 9.2.1, the permittee shall maintain records of the visible emission opacity tests.

9.4.3. For the purpose of demonstrating compliance with sections 9.1.13, 9.1.15, 9.1.16, 9.1.17, the permittee shall maintain records of the amount of condensate and produced water production and the volumes loaded into tank trucks. The permittee shall calculate the monthly throughput to each of the vapor recovery units (CE-3, CE-4) and the vapor combustors (VCU-1, VCU-2) by ratio of the recorded condensate against the process modeling and throughput information within the plans and specifications filed in Permit Application R13-3171.

9.4.4. The permittee shall maintain a copy all design records of the process, maintenance records of equipment and any downtime hours associated with each vapor recovery unit (CE-3, CE-4) and vapor combustors (VCU-1, VCU-2). The permmittee shall also maintain records the vapor combustor (VCU-1, VCU-2) is used as a backup for the VRU and the time period when the emissions are diverted to the vapor combustor (VCU-1, VCU-2).

9.4.5. The permittee shall maintain a copy of the continuous pressure monitoring in the tanks to demonstrate compliance with the 99% control efficiency claimed and the Section 9.1.8.

9.4.6. The permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and that vapors were vented to the device. The permittee shall also maintain records of the visual inspections of the pilot flame.

9.4.7. To demonstrate compliance with the closed vent monitoring requirements, the following records shall be maintained.

i. The initial compliance requirements;

ii. Each annual visual inspection conducted to demonstrate continuous compliance, including records of any repairs that were made as results of the inspection;

iii. Bypass requirements.

a. Each inspection or each time the key is checked out or a record each time the alarm is sounded;

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

iv. Any part of the system that has been designated as "unsafe to inspect" in accordance with 9.2.5.d or "difficult to inspect" in accordance with 9.2.5.e.

9.5. Reporting Requirements

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

9.5.2. Upon request by the Director, the permittee shall report deviations within a requested time from of any occurrences when the control device was operated outside of the parameters defined in the monitoring plan.

9.5.3. The permittee shall notify the Director of any downtime of the VRU in excess of 5%, based on the 12 month rolling total, that was not routed to a control device shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days of the discovery and shall include, at a minimum, the following information: the dates and durations of each downtime event, the cause or suspected causes for each downtime event, any corrective measures taken or planned for each downtime event.

10.0. Source-Specific Requirements (40CFR63 Subpart ZZZZ Requirements, GN-4)

10.1. Limitations and Standards

10.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.
[40 C.F.R. § 63.6595(a)]

10.1.2. *Stationary RICE subject to Regulation under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[40 C.F.R. § 63.6590(c)]

10.1.3. The permittee meets the criteria of paragraph (c)(1), which is for a new or reconstructed stationary RICE located at an area source. The permittee must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart JJJJ.
[40 C.F.R. § 63.6590(c)(1)]

CERTIFICATION OF DATA ACCURACY

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

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

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

Telephone No. _____ Fax No. _____

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

   (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

   (ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.