West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Columbia Gas Transmission, LLC
Ceredo Compressor Station
R30-09900013-2016

William F. Durham
Director

Issued: [Date of issuance] • Effective: [Equals issue date plus two weeks]
Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]

Permit Number: **R30-09900013-2016**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Ceredo Compressor Station**
Permittee Mailing Address: **1700 MacCorkle Avenue, SE, Charleston, WV 25314**

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

Facility Location:	Ceredo, Wayne County, West Virginia
Facility Mailing Address:	1664 Walker's Branch Road, Ceredo, WV 25704
Telephone Number:	(304) 453-7502
Type of Business Entity:	LLC
Facility Description:	Natural Gas Compressor Station
SIC Codes:	4922
UTM Coordinates:	366.1 km Easting • 4247.5 km Northing • Zone 17

Permit Writer: Robert Mullins

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

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

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

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
00501	E01	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1954	2,800 HP	N/A
00502	E02	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1954	2,800 HP	N/A
00503	E03	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1954	2,800 HP	N/A
00504	E04	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1957	2,800 HP	N/A
00505	E05	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1958	2,800 HP	N/A
00506	E06	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWH-8; 2-cycle, lean burn	1960	2,800 HP	N/A
00507	E07	Reciprocating Engine/Integral Compressor; Cooper-Bessemer 8V-250; 2-cycle, lean burn	1965	2,700 HP	N/A
00510	E10	Solar Titan 250 Combustion Turbine	2017	30,399 HP	SoloNO_x
005G3	G3	Reciprocating Engine/Generator; Waukesha F3521GL; 4-cycle, lean burn; emergency	1996	738 HP	N/A
005G4	G4	Waukesha VGFL36GL Emergency Generator	2017	880 HP	N/A
BLR2	BL2	Hurst S-4-G-150-15 Boiler	2012	6.276 MMBtu/hr	N/A
HTR1	H1	Fuel Gas Heater	1998	0.35 MMBtu/hr	N/A
HTR2	H2	Heater	2017	1.0 MMBtu/hr	NA

1.2. Active R13, R14, and R19 Permits

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

Permit Number	Date of Issuance
R13-1856A	August 30, 2016

2.0 General Conditions

2.1. Definitions

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

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

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

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour
NA *or* N/A	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10µm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

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

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

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

2.7. Minor Permit Modifications

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

2.8. Significant Permit Modification

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

2.9. Emissions Trading

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

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

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

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

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

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

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

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

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
[45CSR§30-5.7.a.]

2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.
[45CSR§30-5.7.b.]

2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and

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

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

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

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45CSR§30-5.6.a.]

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

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

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

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

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

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

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

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 C.F.R. §61.145(b) and 45CSR34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

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

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

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

3.1.9. Only those emission units/sources as identified in Table 1.1, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit application-R13-1856A, the emission units/sources identified under Table 1.1 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.1.
[45CSR13, R13-1856, Condition 4.1.1]

3.1.10. Facilities using Mercaptan Tanks shall use proper odor control methods to comply with 45CSR4. **[45CSR§30-12.7 State-Enforceable only.]**

3.1.11. Emergency Operating Condition/Unit Replacement:

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;

b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;

c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;

d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) business days;

e. The permittee must provide written notification to the Director within five (5) business days of the replacement. This notification must contain:

i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;

ii. Identification of the engine(s) being temporarily replaced;

iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;

iv. Projected duration of the replacement engine(s); and

v. The appropriate certification by a responsible official.

[45CSR§30-12.7]

3.1.12. **40 C.F.R. 60, Subpart OOOOa**
For each affected facility under §60.5365a(j), you must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs (a) through (j) of §60.5397a. These requirements are independent of the closed vent system and cover requirements in §60.5411a.
[45CSR13, R13-1856, Condition 4.1.5; 45CSR16; 40 C.F.R. §60.5397a]

3.2. Monitoring Requirements

3.2.1. **Emission Limit Averaging Time**. Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months.
[45CSR13, R13-1856, Condition 3.2.1]

3.3. Testing Requirements

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

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved

test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition.
3. A statement of compliance or non-compliance with each permit or rule condition.

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

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR13, R13-1856 Condition 4.4.1; 45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

When a person is found in violation of this rule, the Director may require the person to utilize a system to minimize fugitive particulate matter. This system to minimize fugitive particulate matter may include, but is not limited to, the following:

a. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;

b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;

c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or

d. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of materials, including adequate containment methods during sandblasting, abrasive cleaning or other similar operations.

[45CSR§17-3. State-Enforceable only.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) 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:	**If to the US EPA:**
Director WVDEP Division of Air Quality 601 57th Street SE Charleston, WV 25304 Phone: 304/926-0475 FAX: 304/926-0478	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. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]

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

3.5.8. **Deviations.**

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

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

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report

of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.5.10. During compliance certification, the facility shall certify that the facility burns natural gas in all stationary equipment regulated under this permit except, when applicable, for emergency equipment (i.e. diesel generators).
[45CSR§30-5.1.c.3.C.]

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

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

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

a. According to 45CSR§2-11.1 the boiler and heaters are exempt from the weight emission standards and MRR (monitoring, recordkeeping and reporting) because they are less than 10 mmBtu/hr.

b. 45CSR10; To Prevent and Control Air Pollution from the Emission of Sulfur Oxides: 45CSR10 is not applicable to the facility boiler and heaters because they are less than 10 mmBtu/hr.

c. 45CSR21; To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: All storage tanks at Ceredo station are below 40,000 gallons in capacity, hence 45CSR§21-28 is not

applicable. Ceredo station is not engaged in the extraction or fractionation of natural gas, hence, 45CSR§21-29 is not applicable.

d. 45CSR27; To Prevent and Control the Emissions of Toxic Air Pollutants: Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.

e. 40 C.F.R. 60 Subpart Dc; Standards of Performance for Steam Generating Units: The boiler and heaters at this facility are less than 10 mmBtu/hr; hence, Subpart Dc is not applicable.

f. 40 C.F.R. 60 Subparts K, Ka; Standards of Performance for Storage Vessels for Petroleum Liquids: All tanks at Ceredo station are below 40,000 gallons in capacity.

g. 40 C.F.R. 60 Subpart Kb; Standards of Performance for Volatile Organic Liquid Storage Vessels: All tanks at Ceredo station are below 75m^3 in capacity.

h. 40 C.F.R. 60 Subpart KKK; Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant: Ceredo station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both.

i. 40 C.F.R. 60 Subpart IIII; Standards of Performance for Stationary Compression Ignition Internal Combustion Engines: There are no compression ignition engines at this facility.

j. 40 C.F.R. 63 Subpart HHH; National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities: The facility does not have a glycol dehydration unit and is therefore not subject to the requirements of this subpart.

k. 40 C.F.R. 63 Subpart YYYY; Turbine MACT: The Solar Titan 250 (E10) is subject to 40 C.F.R. 63 Subpart YYYY. Per 40 C.F.R. §63.6095(d), there is a stay of standards for lean premix stationary combustion turbines until EPA takes final action to require compliance with this subpart. The only requirement for the unit is the initial notification requirement of 40 C.F.R. §63.6145, which was satisfied by the preconstruction permit application.

l. 40 C.F.R. 64 – None of the emission units have any add-on controls; therefore, in accordance with 40 C.F.R § 64.2(a), CAM is not applicable to this facility.

4.0 Source Specific Requirements [emission point ID(s): BL2, H1, H2]

4.1. Limitations and Standards

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

4.1.2. Compliance with the visible emission requirements of 45CSR§2-3.1 (Section 4.1.1 of this permit) shall be determined in accordance with 40 C.F.R. 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 45CSR§2-3.1 (Section 4.1.1 of this permit). Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control. **[45CSR§2-3.2.]**

4.1.3. You must meet the work practice standard in 40 C.F.R 63 Subpart DDDDD Table 3 that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under 40 C.F.R. §63.7522.

If your unit is. . .	You must meet the following. . .
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater **(H1, H2)**	Conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540.
2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid **(BL2)**	Conduct a tune-up of the boiler or process heater biennially as specified in §63.7540.

If your unit is. . .	You must meet the following. . .
4. An existing boiler or process heater located at a major source facility, not including limited use units. **(H1)**	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in §63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in §63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[45CSR34; 40 C.F.R. §63.7500(a)(1), 40 C.F.R. 63 Subpart DDDDD Table 3]

4.1.4. At all times, you must operate and maintain any affected source (as defined in 40 C.F.R. §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[45CSR34; 40 C.F.R. §63.7500(a)(3)]

4.1.5. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in 40 C.F.R. §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in 40 C.F.R. §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 C.F.R. 63 subpart DDDDD, or the operating limits in Table 4 of 40 C.F.R. 63 subpart DDDDD.
[45CSR34; 40 C.F.R. §63.7500(e)]

4.1.6. For existing affected sources (as defined in 40 C.F.R. §63.7490), you must complete the initial compliance demonstrations, as specified in 40 C.F.R. §63.7510(a) through (d), no later than 180 days after the compliance date that is specified for your source in 40 C.F.R. §63.7495 and according to the applicable provisions in 40 C.F.R. §63.7(a)(2) as cited in 40 C.F.R. 63 Subpart DDDDD Table 10, except as specified in 40 C.F.R. §63.7510(j). You must complete an initial tune-up by following the procedures described in 40 C.F.R. §§63.7540(a)(10)(i) through (vi) no later than the compliance date specified in 40 C.F.R. §63.7495, except as specified in 40 C.F.R. §63.7510(j). You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in 40 C.F.R. §63.7495.
[45CSR34; 40 C.F.R. §63.7510(e)](H1)

4.1.7. For new or reconstructed affected sources (as defined in 40 C.F.R. §63.7490), you must demonstrate initial compliance with the applicable work practice standards in 40 C.F.R. 63 Subpart DDDDD Table 3 within the applicable annual, biennial, or 5-year schedule as specified in 40 C.F.R. §63.7515(d) following the initial compliance date specified in 40 C.F.R. §63.7495(a). Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 C.F.R. §63.7515(d).
[45CSR34; 40 C.F.R. §63.7510(g)](H2 and BL2)

4.1.8. If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to 40 C.F.R. §63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in 40 C.F.R. §63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in 40 C.F.R. §63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in 40 C.F.R. §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in 40 C.F.R. §63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.
[45CSR34; 40 C.F.R. §63.7515(d)]

4.1.9. If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in 40 C.F.R. §63.7540(a)(12)), you must conduct a biennial tune-up of the boiler or process heater as specified in 40 C.F.R §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance.
[45CSR34; 40 C.F.R. §63.7540(a)(11)](BL2)

4.1.10. If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs 40 C.F.R. §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph 40 C.F.R. §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. If an oxygen

trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. These tune-ups shall consist of the following:

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

f. Maintain on-site and submit, if requested by the Administrator, a report containing the following information:

   i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

   ii. A description of any corrective actions taken as a part of the tune-up; and

   iii. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[45CSR34; 40 C.F.R. §§63.7540(a)(10) & (a)(12)]

4.1.11. The Heater, identified as H2, shall operate according to the following requirements:

a. The MDHI shall not exceed 1.00 mmBtu/hr and the unit shall only be fired by natural gas;

b. As the annual emission limits given in table 4.1.11(c) are based on operating 8,760 hours/year, there is no limit on the annual hours of operation or fuel usage of the Heater.

c. The maximum combustion exhaust emissions from the Heater shall not exceed the limits given in the following table;

Table 4.1.11.c: Heater Emission Limits

Pollutant	PPH	TPY
CO	0.08	0.36
NO_x	0.10	0.43

d. **45CSR2**
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.]

e. **40 C.F.R. 63 Subpart DDDDD**
Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in §63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.
[45CSR34, 40 C.F.R. §63.7500(e)]

[45CSR13, R13-1856, Condition 4.1.4](H2)

4.2. Monitoring Requirements

4.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct visible emissions observations using Method 22 for the purpose of demonstrating compliance with Section 4.1.1. If visible emissions are observed, the permittee shall conduct a Method 9 reading unless the cause for visible emissions is corrected within 24 hours. Records of observation will be kept for at least 5 years from the date of observation.
[45CSR§30-5.1.c.]

4.3. Testing Requirements

4.3.1. At such reasonable times(s) as the Secretary may designate, in accordance with the provisions of 3.3.1 of this permit, the permittee shall conduct of have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.
[45CSR13, R13-1856, Condition 4.3.1](H2)

4.4. Recordkeeping Requirements

4.4.1. You must keep records of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).
[45CSR34; 40 C.F.R. §63.7555(a)(1)]

4.4.2. In what form and how long must I keep my records?

a. Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).

b. As specified in 40 C.F.R.§63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

c. You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.

[45CSR34; 40 C.F.R. §63.7560]

4.5. Reporting Requirements

4.5.1. You must include with the Notification of Compliance Status a signed certification that either the energy assessment was completed according to 40 C.F.R. 63 Subpart DDDDD Table 3, and that the assessment is an accurate depiction of your facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. **[45CSR34; 40 C.F.R. §63.7530(e)](H1)**

4.5.2. You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in40 C.F.R. §63.7545(e).
[45CSR34; 40 C.F.R. §63.7530(f)]

4.5.3. If you are not required to conduct an initial compliance demonstration as specified in 40 C.F.R. §63.7530(a), the Notification of Compliance Status must only contain the information specified in 40 C.F.R. §§63.7545(e)(1) and (8) and must be submitted within 60 days of the compliance date specified at 40 C.F.R. §63.7495(b).

a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under §241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of §241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

b. In addition to the information required in 40 C.F.R. §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

i. "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in 40 C.F.R. §63.7540(a)(10)(i) through (vi)."

ii. "This facility has had an energy assessment performed according to §63.7530(e)."

iii. Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

[45CSR34; 40 C.F.R. §63.7545(e)(1) and (8)]

4.5.4. Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report, according to paragraph 40 C.F.R. §63.7550(h), by the date in 40 C.F.R. 63 Subpart DDDDD Table 9 and according to the requirements in 40 C.F.R. §§63.7550(b)(1) through (4). For units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in 40 C.F.R. §§63.7550(b)(1) through (4), instead of a semi-annual compliance report.
[45CSR34; 40 C.F.R. §63.7550(b)]

4.5.5. For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in 40 C.F.R. §§63.7550(b)(1) through (4).
[45CSR34; 40 C.F.R. §63.7550(b)(5)]

4.5.6. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

a. Company and Facility name and address.

b. Process unit information, emissions limitations, and operating parameter limitations.

c. Date of report and beginning and ending dates of the reporting period.

d. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to 40 C.F.R. §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

[45CSR34; 40 C.F.R. §§63.7550(c), (c)(1), (c)(5)(i)-(iii), (c)(5)(xiv), and (c)(5)(xvii)]

4.6. Compliance Plan

4.6.1. None.

5.0 Source Specific Requirements [emission point ID(s): E01, E02, E03, E04, E05, E06, E07, G3, G4]

5.1. Limitations and Standards

5.1.1. The following stationary RICE do not have to meet the requirements of 40 C.F.R. 63 subpart ZZZZ and of subpart A, including initial notification requirements:

a. Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

[45CSR34, 40 C.F.R. §63.6590(b)(3)(i)](E01, E02, E03, E04, E05, E06, E07)

5.1.2. If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to 40 C.F.R. 63 subpart ZZZZ or operating limitations in Tables 1b and 2b to 40 C.F.R. 63 subpart ZZZZ: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.
[45CSR34, 40 C.F.R. §63.6600(c)](E01, E02, E03, E04, E05, E06, E07, G3, G4)

5.1.3. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in 40 C.F.R. §§63.6640(f)(1) through (3). In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 C.F.R. §§63.6640(f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs 40 C.F.R. §§63.6640(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

a. There is no time limit on the use of emergency stationary RICE in emergency situations.

b. You may operate your emergency stationary RICE for any combination of the purposes specified in 40 C.F.R. §§63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs 40 C.F.R. §63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by this 40 C.F.R. §63.6640(f)(2).

i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used 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 RICE beyond 100 hours per calendar year.

ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see

§63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

c. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 C.F.R. §63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.

[45CSR34; 40 C.F.R. §§63.6640(f)(1) through (3)](G3 and G4)

5.1.4. The Emergency Generators (EGs), Identified as 005G3 and 005G4, shall meet the following requirements:

a. The authorized EGs shall each be the make, model, and size as specified under Table 1.1, shall only be fired by pipeline-quality natural gas, and each shall not operate in excess of 500 hours per year (during periods of non-emergencies);

b. The maximum emissions from the Waukesha F3521GL Emergency Generator, identified as 005G3, shall not exceed the limits given in the following table:

Pollutant	PPH	TPY
CO	4.31	1.08
NO_X	2.44	0.61
VOC	1.63	0.41
Formaldehyde	0.31	0.08

c. The maximum emissions from the Waukesha VGFL36GL Emergency Generator, identified as 005G4, shall not exceed the limits given in the following table:

Pollutant	PPH	TPY
CO	7.76	1.94
NO_X	3.88	0.97
VOC	1.94	0.49
Formaldehyde	0.37	0.09

d. **<u>40 C.F.R 60, Subpart JJJJ</u>**
The Waukesha VGFL36GL identified as 005G4 shall meet all applicable requirements under 40 C.F.R. 60, Subpart JJJJ including the following:

(1) 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 40 C.F.R. 60, Subpart JJJJ Table 1 for their stationary ICE

Engine type and fuel	Maximum Engine Power	Manufacture Date	Emission Standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_x	CO	VOC[d]	NO_x	CO	VOC[d]
Emergency	HP≥130	1/1/2009	2.0	4.0	1.0	160	540	86

[a] Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15% O_2.
[b] For Purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.
[45CSR16, 40 C.F.R. §60.4233(e), 40 C.F.R. 60 subpart JJJJ Table 1]

(2) The emergency generator shall meet the definition of "Emergency Stationary Internal Combustion Engine" as given under 40 C.F.R. §60.4248.
[45CSR16, 40 C.F.R. §60.4248]

[45CSR13, R13-1856, Condition 4.1.3.]

5.1.5. 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.
[45CSR16, 40 C.F.R. §60.4234](G4)

5.1.6. Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.
[45CSR16, 40 C.F.R. §60.4237(a)](G4)

5.1.7. 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 40 C.F.R. §60.4243(b)(1) and (2).

a. 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 40 C.F.R. §60.4243(b)(2)(i).

i. 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.

[45CSR16, 40 C.F.R. §§60.4243(b), (b)(2), & (b)(2)(ii)](G4)

5.1.8. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in 40 C.F.R. §§60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 C.F.R. §§60.4243(d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in 40 C.F.R. §§60.4243(d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

a. There is no time limit on the use of emergency stationary ICE in emergency situations.

b. You may operate your emergency stationary ICE for any combination of the purposes specified in in 40 C.F.R. §§60.4243(d)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by in 40 C.F.R. §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this in 40 C.F.R. §60.4243(d)(2).

   i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used 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 calendar year.

   ii. Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

   iii. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

c. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 C.F.R. §60.4243(d)(2). Except as provided in 40 C.F.R. §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

   i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

   ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

   iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

   iv. The power is provided only to the facility itself or to support the local transmission and distribution system.

v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[45CSR16, 40 C.F.R. §60.4243(d)](G4)

5.2. Monitoring Requirements

5.2.1. For the purposes of demonstrating compliance with the maximum hours of operation limits set forth in 5.1.3.a, the permittee shall maintain monthly and rolling twelve month records of the hours of operation of the emergency generators.
[45CSR13, R13-1856, Condition 4.2.2.]

5.3. Testing Requirements

5.3.1. For the purposes of demonstrating compliance with the emissions standards of 5.1.4.c and 40 C.F.R. §60.4233(e), the permittee shall conduct an initial performance test within one year after initial startup. After the initial test, subsequent testing shall be conducted every 8,760 hours of operation or 3 years, whichever comes first. If the engine is not operational, the permittee nust conduct the performance test immediately upon startup of the engine. These tests must be conducted within 10 percent of the 100 percent peak (or highest achievable) load and according to the requirements of §60.8, under the specific conditions that are specified by Table 2 of Subpart JJJJ of Part 60 – Requirements for Performance test, and in accordance with Condition 3.3.1. of this permit. Records of such testing shall be maintained in accordance with Condition 3.4.1 of this permit.
[45CSR13, R13-1856, Condition 4.3.2.b](G4)

5.3.2. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in 40 C.F.R. §§60.4244(a) through (f).

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 NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.192 \times 10^{-3} \times Q \times T}{HP-hr} \qquad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO_X in g/HP-hr.
C_d = Measured NO_X concentration in parts per million by volume (ppmv).
1.912×10^{-3} = Conversion constant for ppm NO_X 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.
C_d = 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.
C_d = 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:

RF_i = Response factor of compound i when measured with EPA Method 25A.
C_{Mi} = Measured concentration of compound i in ppmv as carbon.
C_{Ai} = True concentration of compound i in ppmv as carbon.

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

Where:
C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.
C_{imeas} = 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.

[45CSR16, 40 C.F.R. §60.4244](G4)

5.4. Recordkeeping Requirements

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

a. All notifications submitted to comply with 40 C.F.R. 60 subpart JJJJ and all documentation supporting any notification.

b. Maintenance conducted on the engine.

c. 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.

d. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR16, 40 C.F.R. §60.4245(a)](G4)

5.4.2. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
[45CSR16, 40 C.F.R. §60.4245(b)](G4)

5.5. Reporting Requirements

5.5.1. If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
[45CSR34, 40 C.F.R. §63.6645(f)](G4)

5.6. Compliance Plan

5.6.1. None.

6.0 Source Specific Requirements [emission point ID(s): E10]

6.1. Limitations and Standards

6.1.1. The Solar Titan 250 combustion turbine (CT), identified as 00510, shall meet the following requirements:

a. The authorized CT shall be the make, model, and size as specified under Table 1.1 and shall only be fired by pipeline-quality natural gas;

b. With the exception of operation during "low-temperature mode" and low-load mode" as defined under 6.2.1(a), at all times the CT is in operation, the unit shall utilize SoLoNO_x dry low-NO_x combustor technology;

c. The CT shall be fired using good combustion practices;

d. The maximum emissions from the CT shall not exceed the limits (during specific operational scenarios) as given in the following table:

Pollutant	PPH		TPY
	Normal[(1)]	Low-Load	
CO	12.06	7.25	54.65
NO_x	7.93	23.84	35.67
$PM_{2.5}/PM_{10}/PM$	1.47	n/a	6.44
SO_2	12.71	n/a	0.70
VOC	1.38	0.66	6.03
Formaldehyde	0.16	n/a	0.69

[(1)] Emission limit valid for temperatures ≥ 32°F

e. The CT shall meet all applicable requirements under 40 C.F.R. 60 Subpart KKKK including the following:

(i) You must meet the emission limits for NO_x specified in Table 1 to this subpart.

Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO_x emission standard
New turbine firing natural gas	>50 MMBtu/h and ≤850 MMBtu/h	25 ppm at 15 percent O_2 or 150 ng/J of useful output (1.2 lb/MWh).

[45CSR16, 40 C.F.R. §60.4320(a), 40 C.F.R. 60, Subpart KKKK Table 1]

(ii) If your turbine is located in a continental area, you must comply with either paragraph 40 C.F.R. §§60.4330(a)(1), (a)(2), or (a)(3). **[45CSR16, 40 C.F.R §60.4330(a)]**

(1) You must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J)

(0.90 pounds per megawatt-hour (lb/MWh)) gross output; **[45CSR16, 40 C.F.R §60.4330(a)(1)]**

(2) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. **[45CSR16, 40 C.F.R §60.4330(a)(2)]**

[45CSR13, R13-1856, Condition 4.1.2]

6.1.2. **Operation and Maintenance or Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all air pollution control equipment 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.
[45CSR13, R13-1856, Condition 4.1.6]

6.1.3. The permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.
[45CSR16, 40 C.F.R §60.4333(a)]

6.1.4. If you are not using water or steam injection to control NO_X emissions, you must perform annual performance tests in accordance with 40 C.F.R. §60.4400 to demonstrate continuous compliance. If the NO_X emission result from the performance test is less than or equal to 75 percent of the NO_X emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit for the turbine, you must resume annual performance tests.
[45CSR16, 40 C.F.R §60.4340(a)]

6.2. Monitoring Requirements

6.2.1. The Solar Titan 250 CT shall meet the following Monitoring, Compliance Demonstration, Recording and Reporting Requirements:

a. The permittee shall monitor and record the monthly amount of hours the CT operates in the following modes:

(i) Normal Mode = Load ≥ 40%, Temperature > -20°F: $SoLoNO_x$ operating;

(ii) Low-Temperature Mode = Temperature ≤ -20°F: non-$SoLoNO_x$ mode; and

(iii) Low-Load Mode = Load ≤ 40% (includes startup/shutdown events): non-$SoLoNO_x$ mode.

b. To determine compliance with the CT annual emission limits given in 6.1.1.d, the permittee shall calculate the monthly and twelve month rolling average of actual emissions (in tons) that the CT emitted. The calculation of actual monthly and annual emissions shall be in accordance with the following:

(i) The permittee shall, by the 15th of each calendar month, calculate the actual monthly and rolling twelve month total of emissions of the CT using the data recorded under 6.2.1.a and the best available emission factors in accordance with the following requirements:

(1) Emission factors may be used that were measured during the most recent performance test approved by the Secretary (and that were used to determine compliance with the hourly limits given in 6.1.1.d);

(2) When emission factors as described under 6.2.1.b.(i)(1) are not available, the permittee shall use the emission factors used to calculate the potential-to-emit of the CT as given in Permit Application R13-1856A.

c. **40 C.F.R. 60, Subpart KKKK**

You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb/MMBtu) heat input for units located in continental areas and 180 ng SO_2/J (0.42 lb/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. You must use one of the following sources of information to make the required demonstration:

(i) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.04 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for noncontinental areas, has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas and has potential sulfur emissions of less than 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input for noncontinental areas; or

(ii) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas or 180 ng SO_2/J (0.42 lb SO_2/MMBtu) heat input for noncontinental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

[45CSR16, 40 CFR §60.4365]

[45CSR13, R13-1856, Condition 4.2.1]

6.2.2. If you elect not to demonstrate sulfur content using options in 40 C.F.R. §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.
[45CSR16, 40 CFR§ 60.4370(b)]

6.3. Testing Requirements

6.3.1. The permittee shall meet the following testing requirement with respect to the Solar Titan 250 CT:

a. For the purposes of demonstrating compliance with the NO_X emission standard in condition 6.1.1.e and 40 C.F.R. §60.4320(a) the permittee shall conduct an initial performance test within 60 days after achieving maximum output of each turbine, but no later than 180 days after initial startup. After the initial test, subsequent performance testing shall be conducted annually (no more than 14 months following the previous test) unless the previous results demonstrate that the affected units achieved compliance of less than or equal to 75 percent of the NO_X emission limit, then the permittee may reduce

the frequency of subsequent tests to once every two years (no more than 26 calendar months following the previous test) as allowed under 40 C.F.R. §60.4320(a). If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit, then the permittee must resume annual performance tests. Such testing shall be conducted in accordance with Condition 3.3.1. and 40 C.F.R. §60.4400. Records of such testing shall be maintained in accordance with Condition 3.4.1.

[45CSR13, R13-1856, Condition 4.3.2.a]

6.3.2. You must conduct an initial performance test, as required in §60.8. Subsequent NOX performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).

a. There are two general methodologies that you may use to conduct the performance tests. For each test run:

i. Measure the NO_X concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NO_X emission rate:

$$E = \frac{(1.194 \times 10^{-7}) \times (NO_X)_C \times Q_{std}}{P}$$

Where:
E = NO_X emission rate, in lb/MWh
1.194 × 10−7 = conversion constant, in lb/dscf-ppm
$(NO_X)_c$ = average NOX concentration for the run, in ppm
Q_{std} = stack gas volumetric flow rate, in dscf/hr
P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or

ii. Measure the NO_X and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the NO_X emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the NO_X emission rate in lb/MWh.

b. Sampling traverse points for NO_X and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

c. Notwithstanding 40 C.F.R. §60.4400(a)(2), you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of this part if the following conditions are met

i. You may perform a stratification test for NOX and diluent pursuant to the procedures specified in section 6.5.6.1(a) through (e) of appendix A of part 75 of this chapter.

ii. Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:

A. If each of the individual traverse point NO_X concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO_2 (or O_2) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NO_X concentration during the stratification test; or

B. For turbines with a NO_X standard greater than 15 ppm @ 15% O_2, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_X concentrations is within ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3ppm or ±0.3 percent CO_2 (or O_2) from the mean for all traverse points; or

C. For turbines with a NO_X standard less than or equal to 15 ppm @ 15% O_2, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NO_X concentrations is within ±2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±1ppm or ±0.15 percent CO_2 (or O_2) from the mean for all traverse points.

[45CSR16, 40 C.F.R. §60.4400(a)]

6.3.3. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

a. If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.

b. For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NO_X emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.

c. If water or steam injection is used to control NO_X with no additional post-combustion NO_X control and you choose to monitor the steam or water to fuel ratio in accordance with §60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.4320 NO_X emission limit.

d. Compliance with the applicable emission limit in §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NO_X emission rate at each tested level meets the applicable emission limit in §60.4320.

e. If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405) as part of the initial performance test of the affected unit.

f. The ambient temperature must be greater than 0 °F during the performance test.

[45CSR16, 40 C.F.R. §60.4400(b)]

6.4. Recordkeeping Requirements

6.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1856, Condition 4.4.2]

6.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment 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 reoccurrences of the malfunction.

[45CSR13, R13-1856, Condition 4.4.3]

6.5. Reporting Requirements

6.5.1. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime,

in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.
[45CSR16, 40 C.F.R §60.4375(a)]

6.5.2. For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.
[45CSR16, 40 C.F.R §60.4375(b)]

6.6. Compliance Plan

6.6.1. None.