West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Columbia Gas Transmission, LLC
Sherwood Compressor Station
R30-01700162-2025

Laura M. Crowder

Laura M. Crowder
Director, Division of Air Quality

Laura M. Crowder

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Date: 2025.10.15 09:54:10 -04'00'

Issued: October 15, 2025 • Effective: October 29, 2025
Expiration: October 15, 2030 • Renewal Application Due: April 15, 2030

Permit Number: **R30-01700162-2025**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Sherwood 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:	West Union, Doddridge County, West Virginia
Facility Mailing Address:	2678 Route 18 South, West Union, WV 26456
Telephone Number:	(304) 357-2443
Type of Business Entity:	LLC
Facility Description:	Natural Gas Compressor Station
SIC Codes:	4922
UTM Coordinates:	523.0 km Easting • 4,346.7 km Northing • Zone 17

Permit Writer: Sarah Barron

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.

Table of Contents

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
T1	T01	Solar Taurus 60 Turbine	2019	7,417 HP @ 32°F	None
T2	T02	Solar Taurus 60 Turbine	2019	7,417 HP @ 32°F	None
T3	T03	Solar Mars 100 Turbine	2024 [1]	15,427 HP @ 32°F	None
T4	T04	Solar Mars 100 Turbine	2024 [1]	15,427 HP @ 32°F	None
G1	G1	Waukesha VGF-P48GL Emergency Generator RICE	2019	1,175 HP	None
HTR1	H1	Process Heater	2019	1.50 MMBTU/hr	None
HTR2	H2	Process Heater	2019	0.80 MMBTU/hr	None
HTR3	SH1	Catalytic Heaters	Varies	2.88 MMBTU/hr (total)	None
A1	A01	Pipeline Liquids Storage Tank	2019	2,056 gal	None
A3	A03	Wastewater Storage Tank	2019	1,000 gal	None

[1] The Solar Mars 100 Turbines installed in 2024 are like-kind replacement units for the Solar Mars 100 Turbines originally installed at the Sherwood Compressor Station in 2019.

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
R13-3313D	July 2, 2024

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 other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). 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	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**PM_{10}**	Particulate Matter less than 10μm in diameter
CES	Certified Emission Statement	**pph**	Pounds per Hour
C.F.R. *or* CFR	Code of Federal Regulations	**ppm**	Parts per Million
CO	Carbon Monoxide	**PSD**	Prevention of Significant Deterioration
C.S.R. *or* CSR	Codes of State Rules	**psi**	Pounds per Square Inch
DAQ	Division of Air Quality	**SIC**	Standard Industrial Classification
DEP	Department of Environmental Protection	**SIP**	State Implementation Plan
FOIA	Freedom of Information Act	**SO_2**	Sulfur Dioxide
HAP	Hazardous Air Pollutant	**TAP**	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	**TPY**	Tons per Year
HP	Horsepower	**TRS**	Total Reduced Sulfur
lbs/hr *or* lb/hr	Pounds per Hour	**TSP**	Total Suspended Particulate
LDAR	Leak Detection and Repair	**USEPA**	United States Environmental Protection Agency
m	Thousand	**UTM**	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	**VEE**	Visual Emissions Evaluation
mm	Million	**VOC**	Volatile Organic Compounds
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		

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§30-2.40]

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. Reserved

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.]

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)(15)]**

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. 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.
[45CSR§17-3.1. (State-enforceable only)]

3.2. Monitoring Requirements

3.2.1. None

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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4. or 45CSR§30-6.5. as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing

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

d. The permittee shall submit a report of the results of the stack test within 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)(15-16) and 45CSR13]

3.4. Recordkeeping Requirements

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

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

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

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

[45CSR§30-5.1.c.2.A.; 45CSR13, R13-3313, Condition 4.1.1.]

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

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

3.5. Reporting Requirements

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

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

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

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

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air, RCRA, and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

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

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8.
[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 permittee shall maintain a copy of the certification on

site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:	**US EPA:**
DEPAirQualityReports@wv.gov	R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

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

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

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. Reserved.

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

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

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

[45CSR§30-5.1.c.3.C.]

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

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

3.6. Compliance Plan

3.6.1. None

3.7. Permit Shield

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

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

a. 40CFR60, Subpart Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The maximum design heat input of each heater is less than 10 MMBTU/hr. Therefore, according to 40CFR§60.40c(a), this rule does not apply.

b. 40CFR60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and On or Before September 18, 2015. The equipment at this facility was installed after the applicability date specified in 40CFR§60.5365. Therefore, this rule does not apply.

4.0 Turbines [emission point ID(s): T01, T02, T03, T04]

4.1. Limitations and Standards

4.1.1. The Solar turbines (T01, T02, T03, T04) shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices and shall only burn natural gas. Each turbine shall only be fired with pipeline-quality natural gas. **[45CSR13, R13-3313, Condition 5.1.1.]**

4.1.2. Maximum annual emissions from the Solar turbines (T01, T02, T03, T04) shall not exceed the following:

Emission Point ID#	NO_X	CO	VOC	SO_2	PM_{10}	CH_2O
	tons/year					
T01	16.78	38.95	2.13	0.21	1.97	0.21
T02	16.78	38.95	2.13	0.21	1.97	0.21
T03	32.51	78.89	4.16	0.41	3.82	0.41
T04	32.51	78.89	4.16	0.41	3.82	0.41

Compliance with the annual emission limits shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the emissions at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-3313, Condition 5.1.2.]

4.1.3. Maximum hourly emissions from the Solar Taurus 60 turbines (T01, T02) shall not exceed the following:

Operating Parameter	T01	T02
NO_X		
Full Load @ 32°F	15 ppm_v @ 15% O_2 (3.68 lb/hr)	15 ppm_v @ 15% O_2 (3.68 lb/hr)
Low Temp (<0°F)	10.75 lb/hr	10.75 lb/hr
Low Load (<50%)	8.50 lb/hr	8.50 lb/hr
Startup/Shutdown	1.10 lb/event	1.10 lb/event
CO		
Full Load @ 32°F	25 ppm_v @ 15% O_2 (3.74 lb/hr)	25 ppm_v @ 15% O_2 (3.74 lb/hr)
Low Temp (<0°F)	15.58 lb/hr	15.58 lb/hr
Low Load (<50%)	344.95 lb/hr	344.95 lb/hr
Startup/Shutdown	97.30 lb/event	97.30 lb/event
VOC		
Full Load @ 32°F	5 ppm_v @ 15% O_2 (0.43 lb/hr)	5 ppm_v @ 15% O_2 (0.43 lb/hr)

Operating Parameter	T01	T02
Low Temp (<0°F)	0.89 lb/hr	0.89 lb/hr
Low Load (<50%)	3.94 lb/hr	3.94 lb/hr
Startup/Shutdown	1.12 lb/event	1.12 lb/event
SO_2 (short term emission rate based on 20 gr S/100 scf)		
Full Load @ 32°F	3.90 lb/hr	3.90 lb/hr
PM_{10}		
Full Load @ 32°F	0.45 lb/hr	0.45 lb/hr

[45CSR13, R13-3313, Condition 5.1.3.]

4.1.4. Maximum hourly emissions from the Solar Mars 100 turbines (T03, T04) shall not exceed the following:

Operating Parameter	T03	T04
NO_X		
Full Load @ 32°F	15 ppm_v @ 15% O_2 (7.12 lb/hr)	15 ppm_v @ 15% O_2 (7.12 lb/hr)
Low Temp (<0°F)	21.12 lb/hr	21.12 lb/hr
Low Load (<50%)	16.10 lb/hr	16.10 lb/hr
Startup/Shutdown	3.10 lb/event	3.10 lb/event
CO		
Full Load @ 32°F	25 ppm_v @ 15% O_2 (7.23 lb/hr)	25 ppm_v @ 15% O_2 (7.23 lb/hr)
Low Temp (<0°F)	30.60 lb/hr	30.60 lb/hr
Low Load (<50%)	653.41 lb/hr	653.41 lb/hr
Startup/Shutdown	272.70 lb/event	272.70 lb/event
VOC		
Full Load @ 32°F	5 ppm_v @ 15% O_2 (0.83 lb/hr)	5 ppm_v @ 15% O_2 (0.83 lb/hr)
Low Temp (<0°F)	1.75 lb/hr	1.75 lb/hr
Low Load (<50%)	7.47 lb/hr	7.47 lb/hr
Startup/Shutdown	3.12 lb/event	3.12 lb/event
SO_2 (short term emission rate based on 20 gr S/100 scf)		
Full Load @ 32°F	7.54 lb/hr	7.54 lb/hr
PM_{10}		
Full Load @ 32°F	0.87 lb/hr	0.87 lb/hr

[45CSR13, R13-3313, Condition 5.1.4.]

4.1.5. NO_X emissions from the Solar turbines (T01, T02, T03, T04) shall not exceed 25 ppm at 15% O_2 (or an alternative limit of 150 ng/J of useful output or 1.2 lb/MWh). When operating at less than 75% peak load or at temperatures less than 0°F, the emission limit for NO_X is 150 ppm at 15% O_2 (or an alternative limit of 1,100 ng/J of useful output or 8.7 lb/MWh).
[45CSR16; 40CFR§60.4320(a) and Table 1 to 40CFR60, Subpart KKKK; 45CSR13, R13-3313, Condition 5.1.5.]

4.1.6. Emissions of SO_2 shall not exceed 0.060 lb of SO_2/MMBTU heat input. For the purpose of demonstrating compliance with this limit, the permittee shall maintain the Federal Energy Regulatory Commission (FERC) tariff limit on total sulfur content of 20 grains of sulfur per 100 standard cubic feet of natural gas combusted in the turbines.
[45CSR16; 40CFR§60.4330(a)(2) and §60.4365(a); 45CSR13, R13-3313, Condition 5.1.6.]

4.1.7. The permittee must operate and maintain the stationary combustion turbines (T01, T02, T03, T04) in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.
[45CSR16; 40CFR§60.4333(a); 45CSR13, R13-3313, Condition 5.1.7.]

4.2. Monitoring Requirements

4.2.1. None

4.3. Testing Requirements

4.3.1. For the purposes of demonstrating compliance with the NO_X emission standards in permit conditions 4.1.3. and 4.1.4., and 40CFR§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 40CFR§60.4340(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 40CFR§60.4400. Records of such testing shall be maintained in accordance with Condition 3.4.2.
[45CSR16; 40CFR§60.8(a), §60.4340(a), and §60.4400; 45CSR13, R13-3313, Condition 5.2.1.]

4.3.2. In order to show compliance with the CO emission limits contained in 4.1.2. – 4.1.4. of this permit, the permittee shall perform performance tests using EPA approved methods (or other alternative methods approved by the Director) as requested by the Secretary and outlined in Section 3.3. Said testing shall be performed while the turbines are operating at normal conditions, within 25% of full load or at the highest achievable load (and while ambient temperatures are above 0°F).
[45CSR13, R13-3313, Condition 5.2.2.]

4.4. Recordkeeping Requirements

4.4.1. To demonstrate compliance with section 4.1.2. – 4.1.4., the permittee shall maintain records of the amount of natural gas consumed and the hours of operation of each of the Solar turbines (T01, T02, T03, T04).
[45CSR13, R13-3313, Condition 5.3.1.]

4.4.2. The permittee shall maintain 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 natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lb SO_2/MMBTU) heat input for continental areas.
[45CSR16; 40CFR§60.4365(a); 45CSR13, R13-3313, Condition 5.3.2.]

4.4.3. In order to demonstrate compliance with the emission limitations of conditions 4.1.2. – 4.1.4. of this permit, the permittee will monitor and record the monthly operating hours for each operating parameter listed in permit conditions 4.1.3. and 4.1.4. Monthly emissions for each pollutant will be calculated using the following equation:

$$MEP_X = DLNP_X \times DLN\ hrs + LLP_X \times LL\ hrs + LTP_X \times LT\ hrs + SSP_X \times SS\ cycles$$

Where:

- MEP_X is the monthly emissions for each pollutant
- $DLNP_X$ is the unit emission rates (lb/hr) for pollutant X during normal (DLN) operation
- LLP_X is the unit emission rates (lb/hr) for pollutant X during low-load (LL) operation
- LTP_X is the unit emission rates (lb/hr) for pollutant X during low-temperature (LT) operation
- SSP_X is the unit emission rates (lb/cycle) for pollutant X during startup/shutdown (SS) operation

At the end of each month, the monthly emissions will be summed for the preceding 12 months to determine compliance with the annual emissions limits.

[45CSR13, R13-3313, Condition 5.3.3.]

4.5. Reporting Requirements

4.5.1. The permittee shall submit a notification to the Director of the initial startup of the turbines. Such notice must be submitted within 15 days after the actual date of startup for the affected source. This notification supersedes the notification requirements of Condition 2.18. of R13-3313.
[45CSR16; 40CFR§60.7(a)(3); 45CSR13, R13-3313, Condition 5.4.1.]

4.5.2. The permittee shall submit a written report of the results of testing required in 4.3. of this permit before the close of business on the 60th day following the completion of such testing to the Director. Such report(s) shall include all records and readings taken during such testing, as appropriate for the required report.
[45CSR16; 40CFR§60.4375(b); 45CSR13, R13-3313, Condition 5.4.2.]

4.6. Compliance Plan

4.6.1. None

5.0 Emergency Generator RICE [emission point ID(s): G1]

5.1. Limitations and Standards

5.1.1. **Maximum Yearly Operation Limitation.** The maximum yearly operating hours of the 1,175 HP natural gas fired reciprocating engine, Waukesha VGF-P48GL (G1) shall not exceed 500 hours per year (during periods of non-emergencies). Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve-month rolling total. A twelve-month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.
[45CSR13, R13-3313, Condition 6.1.1.]

5.1.2. Maximum emissions from the 1,175 HP natural gas fired reciprocating engine, Waukesha VGF-P48GL (G1) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	5.18	1.30
Carbon Monoxide	10.36	2.59
Volatile Organic Compounds	3.20	0.80

The emergency generator shall only be fired with pipeline-quality natural gas.

Compliance with these limits ensure compliance with condition 5.1.3.

[45CSR13, R13-3313, Condition 6.1.2.]

5.1.3. Emissions from emergency generator (G1) shall not exceed the following:

a. NO_X emissions from the engine shall not exceed 2.0 grams of NO_X per horsepower-hour (g/HP-hr) or 160 ppmvd at 15 percent O_2;

b. CO emissions from the engine shall not exceed 4.0 g/HP-hr or 540 ppmvd at 15 percent O_2;

c. VOC emissions from the engine shall not exceed 1.0 g/HP-hr or 86 ppmvd at 15 percent O_2. Emissions of formaldehyde shall be excluded when determining compliance with this VOC limit.

[45CSR16; 40CFR§60.4233(e); Table 1 to 40CFR60, Subpart JJJJ; 45CSR13, R13-3313, Condition 6.2.1.]

5.1.4. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40CFR§60.4233 over the entire life of the engine.
[45CSR16; 40CFR§60.4234; 45CSR13, R13-3313, Condition 6.2.2.]

5.1.5. 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; 40CFR§60.4237(a); 45CSR13, R13-3313, Condition 6.3.1.]

5.1.6. The owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in 40CFR§60.4233(d) or (e) must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of 40CFR§60.4243.

a. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40CFR§60.4233(d) or (e) and according to the requirements specified in 40CFR§60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of 40CFR§60.4243.

1. The owner or operator of a stationary SI internal combustion engine greater than 500 HP 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, the owner or operator 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; 40CFR§§60.4243(b)(2) and (b)(2)(ii); 45CSR13, R13-3313, Condition 6.4.1.]

5.1.7. The owner or operator of an emergency stationary ICE must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of 40CFR§60.4243. In order for the engine to be considered an emergency stationary ICE under 40CFR60, Subpart JJJJ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of 40CFR§60.4243, is prohibited. If the engine is not operated according to the requirements in paragraphs (d)(1) through (3) of 40CFR§60.4243, the engine will not be considered an emergency engine under 40CFR60, Subpart JJJJ 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. The permittee may operate the emergency stationary ICE for the purpose specified in paragraph (d)(2)(i) of 40CFR§60.4243 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of 40CFR§60.4243 counts as part of the 100 hours per calendar year allowed by paragraph (d)(2) of 40CFR§60.4243.

1. 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.

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 provided in paragraph (d)(2) of 40CFR§60.4243. Except as provided in paragraph (d)(3)(i) of 40CFR§60.4243, 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.

1. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

   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; 40CFR§60.4243(d); 45CSR13, R13-3313, Condition 6.4.2.]

5.1.8. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 40CFR§60.4233.
[45CSR16; 40CFR§60.4243(e); 45CSR13, R13-3313, Condition 6.4.3.]

5.1.9. **40CFR63, Subpart ZZZZ**
The emergency generator (G1) is subject to all applicable regulations given under 40CFR63, Subpart ZZZZ including the following:

a. *Stationary RICE subject to Regulations under 40CFR60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of 40CFR§63.6590 must meet the requirements of 40CFR63 by meeting the requirements of 40CFR60, Subpart IIII, for compression ignition engines or 40CFR60, Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40CFR63.

[45CSR34; 40CFR§63.6590(c)]

5.2. Monitoring Requirements

5.2.1. None

5.3. Testing Requirements

5.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of 40CFR§60.4244.

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 40CFR§60.8 and under the specific conditions that are specified by Table 2 to 40CFR60, Subpart JJJJ.

b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40CFR§60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine solely to conduct a performance test; however, the permittee must conduct the performance test immediately upon startup of the engine.

c. The permittee must conduct three separate test runs for each performance test required in 40CFR60, Subpart JJJJ, as specified in 40CFR§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 40CFR§60.4244:

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

Where:

ER = Emission rate of NO_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°C.

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 40CFR§60.4244:

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

Where:

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

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20°C.

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 the purposes of 40CFR60, Subpart JJJJ, 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 40CFR§60.4244:

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

Where:

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

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20°C.

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 40CFR60, appendix A, or Method 320 of 40CFR63, 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 40CFR§60.4244. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40CFR§60.4244.

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

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.

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

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

[45CSR16; 40CFR§60.4244; 45CSR13, R13-3313, Condition 6.5.1.]

5.4. Recordkeeping Requirements

5.4.1. Owners or operators of stationary SI ICE must meet the following recordkeeping requirements:

a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of 40CFR§60.4245.

1. All notifications submitted to comply with 40CFR60, Subpart JJJJ and all documentation supporting any notification.

2. Maintenance conducted on the engine.

3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable.

4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40CFR§60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR16; 40CFR§60.4245(a)]

b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator 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; 40CFR§60.4245(b)]

[45CSR13, R13-3313, Conditions 6.6.1.a. and 6.6.1.b.]

5.5. Reporting Requirements

5.5.1. Owners or operators of stationary SI ICE must meet the following notification and reporting requirements:

a. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40CFR§60.4231 must submit an initial notification as required in 40CFR§60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of 40CFR§60.4245. Beginning on February 26, 2025, submit the notification electronically according to 40CFR§60.4245(g).

1. Name and address of the owner or operator;

2. The address of the affected source;

3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

4. Emission control equipment; and

5. Fuel used.

[45CSR16; 40CFR§60.4245(c); 45CSR13, R13-3313, Condition 6.6.1.c.]

b. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in 40CFR§60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference – see 40CFR§60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7. Beginning on February 26, 2025, performance tests must be reported electronically according to 40CFR§60.4245(f).

[45CSR16; 40CFR§60.4245(d); 45CSR13, R13-3313, Condition 6.6.1.d.]

c. For an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in 40CFR§60.4243(d)(3)(i), the permittee must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of 40CFR§60.4245.

1. The report must contain the following information:

i. Company name and address where the engine is located.

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

iii. Engine site rating and model year.

iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

v. Hours spent for operation for the purposes specified in 40CFR§60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in

40CFR§60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

3. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). However, if the reporting form specific to 40CFR60, Subpart JJJJ is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40CFR§60.4. Beginning on February 26, 2025, submit the annual report electronically according to paragraph (g) of 40CFR§60.4245.

[45CSR16; 40CFR§60.4245(e)]

d. Beginning on February 26, 2025, within 60 days after the date of completing each performance test, the permittee must submit the results following the procedures specified in paragraph (g) of 40CFR§60.4245. Data collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, the permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or an alternate electronic file.

[45CSR16; 40CFR§60.4245(f)]

e. The permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information claimed as CBI.

[45CSR16; 40CFR§60.4245(g)]

5.6. Compliance Plan

5.6.1. None

6.0 Heaters [emission point ID(s): H1, H2, SH1]

6.1. Limitations and Standards

6.1.1. Maximum Design Heat Input (MDHI). The MDHI for the heaters shall not exceed the following:

Emission Unit ID#	Emission Unit Description	MDHI
HTR1	Process Heater	1.50 MMBTU/hr
HTR2	Process Heater	0.80 MMBTU/hr
HTR3	Catalytic Heaters	2.88 MMBTU/hr TOTAL

Each heater shall only be fired with pipeline-quality natural gas.

[45CSR13, R13-3313, Condition 7.1.1.]

6.1.2. 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.; 45CSR13, R13-3313, Condition 7.1.2.] (HTR1 & HTR2 Only)**

6.2. Monitoring Requirements

6.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with permit condition 6.1.2. Method 9 shall be conducted in accordance with 40CFR60, appendix A.
[45CSR13, R13-3313, Condition 7.2.1.]

6.3. Testing Requirements

6.3.1. Upon request by the Secretary, compliance with the visible emission requirements of permit condition 6.1.2. shall be determined in accordance with 40CFR60, appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary 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 permit condition 6.1.2. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.
[45CSR§2-3.2.; 45CSR13, R13-3313, Condition 7.3.1.]

6.4. Recordkeeping Requirements

6.4.1. The permittee shall maintain records of all monitoring data required by permit condition 6.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.
[45CSR13, R13-3313, Condition 7.4.1.]

6.5. Reporting Requirements

6.5.1. None

6.6. Compliance Plan

6.6.1. None

7.0 40CFR60, Subpart OOOOa Requirements

7.1. Limitations and Standards

7.1.1. For each affected facility under 40CFR§60.5365a(j), the permittee 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 40CFR§60.5397a. The requirements in this section are independent of the closed vent system and cover requirements in 40CFR§60.5411a. Alternatively, the permittee may comply with the requirements of 40CFR§60.5398b, including the notification, recordkeeping, and reporting requirements outlined in 40CFR§60.5424b. For the purpose of Subpart OOOOa, compliance with the requirements of 40CFR§60.5398b will be deemed compliance with this section. When complying with 40CFR§60.5398b, the definitions in 40CFR§60.5430b shall apply for those activities conducted under 40CFR§60.5398b.

a. The permittee must monitor all fugitive emission components, as defined in 40CFR§60.5430a, in accordance with 40CFR§§60.5397a(b) through (g). The permittee must repair all sources of fugitive emissions in accordance with 40CFR§60.5397a(h). The permittee must keep records in accordance with 40CFR§60.5397a(i) and report in accordance with 40CFR§60.5397a(j). For purposes of this section, fugitive emissions are defined as any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 parts per million (ppm) or greater using Method 21 of appendix A-7 to 40CFR60.

b. The permittee must develop an emissions monitoring plan that covers the collection of fugitive emissions components at well sites and compressor stations within each company-defined area in accordance with 40CFR§§60.5397a(c) and (d).

c. Fugitive emissions monitoring plans must include the elements specified in 40CFR§§60.5397a(c)(1) through (8), at a minimum.

1. Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by 40CFR§§60.5397a(f) and (g).

2. Technique for determining fugitive emissions (i.e., Method 21 of appendix A-7 to 40CFR60 or optical gas imaging meeting the requirements in 40CFR§§60.5397a(c)(7)(i) through (vii)).

3. Manufacturer and model number of fugitive emissions detection equipment to be used.

4. Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. The repair schedule must meet the requirements of 40CFR§60.5397a(h) at a minimum.

5. Procedures and timeframes for verifying fugitive emission component repairs.

6. Records that will be kept and the length of time records will be kept.

7. If using optical gas imaging, the plan must also include the elements specified in 40CFR§§60.5397a(c)(7)(i) through (vii).

i. Verification that the optical gas imaging equipment meets the specifications of 40CFR§§60.5397a(c)(7)(i)(A) and (B). This verification is an initial verification and may

either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitive emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

A. The optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

B. The optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of ≤60g/hr from a quarter inch diameter orifice.

ii. Procedure for a daily verification check.

iii. Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

iv. Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

v. Procedures for conducting surveys, including the items specified in 40CFR§§60.5397a(c)(7)(v)(A) through (C).

A. How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

B. How the operator will deal with adverse monitoring conditions, such as wind.

C. How the operator will deal with interferences (e.g., steam).

vi. Training and experience needed prior to performing surveys.

vii. Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

8. If using Method 21 of appendix A-7 of 40CFR60, the plan must also include the elements specified in 40CFR§§60.5397a(c)(8)(i) through (iii). For the purposes of complying with the fugitive emissions monitoring program using Method 21 of appendix A-7 of 40CFR60, a fugitive emission is defined as an instrument reading of 500 ppm or greater.

i. Verification that the monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40CFR60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If the permittee wishes to use an analyzer other than a FID-based instrument, the permittee must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to the compound of interest).

ii. Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40CFR60, appendix A-7, including Section 8.3.1.

iii. Procedures for calibration. The instrument must be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7 of 40CFR60. At a minimum, the permittee must also conduct precision tests at the interval specified in Method 21 of appendix A-7 of 40CFR60, Section 8.1.2, and a calibration drift assessment at the end of each monitoring day. The calibration drift assessment must be conducted as specified in 40CFR§60.5397a(c)(8)(iii)(A). Corrective action for drift assessments is specified in 40CFR§§60.5397a(c)(8)(iii)(B) and (C).

A. Check the instrument using the same calibration gas that was used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of 40CFR60, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. If multiple scales are used, record the instrument reading for each scale used. Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value for each scale and multiply by 100 to express the calibration drift as a percentage.

B. If a calibration drift assessment shows a negative drift of more than 10 percent, then all equipment with instrument readings between the fugitive emission definition multiplied by (100 minus the percent of negative drift/divided by 100) and the fugitive emission definition that was monitored since the last calibration must be re-monitored.

C. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment with instrument readings above the fugitive emission definition and below the fugitive emission definition multiplied by (100 plus the percent of positive drift/divided by 100) monitored since the last calibration may be re-monitored.

d. Each fugitive emissions monitoring plan must include the elements specified in 40CFR§§60.5397a(d)(1) through (3), at a minimum, as applicable.

1. If the permittee is using optical gas imaging, the plan must include procedures to ensure that all fugitive emissions components are monitored during each survey. Example procedures include, but are not limited to, a sitemap with an observation path, a written narrative of where the fugitive emissions components are located and how they will be monitored, or an inventory of fugitive emissions components.

2. If the permittee is using Method 21 of appendix A-7 of 40CFR60, the plan must include a list of fugitive emissions components to be monitored and method for determining the location of fugitive emissions components to be monitored in the field (e.g., tagging, identification on a process and instrumentation diagram, etc.).

3. The fugitive emissions monitoring plan must include the written plan developed for all of the fugitive emissions components designated as difficult-to-monitor in accordance with 40CFR§60.5397a(g)(3), and the written plan for fugitive emissions components designated as unsafe-to-monitor in accordance with 40CFR§60.5397a(g)(4).

e. Each monitoring survey shall observe each fugitive emissions component, as defined in 40CFR§60.5430a, for fugitive emissions.

f. 1. The permittee must conduct an initial monitoring survey within 90 days of the startup of production, as defined in 40CFR§60.5430a, for each collection of fugitive emissions components at a new well site or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a well site, the initial monitoring survey must be conducted within 90 days of the startup of production for each collection of fugitive emissions components after the modification or by June 3, 2017, whichever is later.

2. The permittee must conduct an initial monitoring survey within 90 days of the startup of a new compressor station for each collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a compressor station, the initial monitoring survey must be conducted within 90 days of the modification or by June 3, 2017, whichever is later.

g. A monitoring survey of each collection of fugitive emissions components at a well site or at a compressor station must be performed at the frequencies specified in 40CFR§§60.5397a(g)(1) and (2), with the exceptions noted in 40CFR§§60.5397a(g)(3) through (6).

1. A monitoring survey of each collection of fugitive emissions components at a well site must be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least 4 months apart and no more than 7 months apart.

2. A monitoring survey of the collection of fugitive emissions components at a compressor station must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.

3. Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of 40CFR§§60.5397a(g)(3)(i) through (iv).

i. A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by 40CFR§§60.5397a(b), (c), and (d).

ii. The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

iii. The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

iv. The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.

4. Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the specifications of 40CFR§§60.5397a(g)(4)(i) through (iv).

    i. A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by 40CFR§§60.5397a(b), (c), and (d).

    ii. The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

    iii. The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

    iv. The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

5. The permittee is no longer required to comply with the requirements of 40CFR§60.5397a(g)(1) when the owner or operator removes all major production and processing equipment, as defined in 40CFR§60.5430a, such that the well site becomes a wellhead only well site. If any major production and processing equipment is subsequently added to the well site, then the owner or operator must comply with the requirements in paragraphs (f)(1) and (g)(1) of 40CFR§60.5397a.

6. The requirements of 40CFR§60.5397a(g)(2) are waived for any collection of fugitive emissions components at a compressor station located within an area that has an average calendar month temperature below 0°F for two of three consecutive calendar months of a quarterly monitoring period. The calendar month temperature average for each month within the quarterly monitoring period must be determined using historical monthly average temperatures over the previous three years as reported by a National Oceanic and Atmospheric Administration source or other source approved by the Administrator. The requirements of 40CFR§60.5397a(g)(2) shall not be waived for two consecutive quarterly monitoring periods.

h. Each identified source of fugitive emissions shall be repaired, as defined in 40CFR§60.5430a, in accordance with 40CFR§§60.5397a(h)(1) and (2).

1. A first attempt at repair shall be made no later than 30 calendar days after detection of the fugitive emissions.

2. Repair shall be completed as soon as practicable, but no later than 30 calendar days after the first attempt at repair as required in 40CFR§60.5397a(h)(1).

3. Delay of repair will be allowed if the conditions in 40CFR§60.5397a(h)(3)(i) or (ii) are met.

    i. If the repair is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair must be completed during the next scheduled compressor station shutdown for maintenance, scheduled well shutdown, scheduled well shut-in, after a scheduled vent blowdown, or within 2 years of detecting the fugitive emissions, whichever is earliest. For

purposes of 40CFR§60.5397a(h)(3), a vent blowdown is the opening of one or more blowdown valves to depressurize major production and processing equipment, other than a storage vessel.

ii. If the repair requires replacement of a fugitive emissions component or a part thereof, but the replacement cannot be acquired and installed within the repair timelines specified in paragraphs (h)(1) and (2) of 40CFR§60.5397a due to either of the conditions specified in paragraphs (h)(3)(ii)(A) or (B) of 40CFR§60.5397a, the repair must be completed in accordance with paragraph (h)(3)(ii)(C) of 40CFR§60.5397a and documented in accordance with 40CFR§60.5420a(c)(15)(vii)(I).

A. Valve assembly supplies had been sufficiently stocked but are depleted at the time of the required repair.

B. A replacement fugitive emissions component or a part thereof requires custom fabrication.

C. The required replacement must be ordered no later than 10 calendar days after the first attempt at repair. The repair must be completed as soon as practicable, but no later than 30 calendar days after receipt of the replacement component, unless the repair requires a compressor station or well shutdown. If the repair requires a compressor station or well shutdown, the repair must be completed in accordance with the timeframe specified in 40CFR§60.5397a(h)(3)(i).

4. Each identified source of fugitive emissions must be resurveyed to complete repair according to the requirements in 40CFR§§60.5397a(h)(4)(i) through (iv), to ensure that there are no fugitive emissions.

i. The operator may resurvey the fugitive emissions components to verify repair using either Method 21 of appendix A-7 of 40CFR60 or optical gas imaging.

ii. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged during the monitoring survey when the fugitives were initially found for identification purposes and subsequent repair. The digital photograph must include the date that the photograph was taken and must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

iii. Operators that use Method 21 of appendix A-7 of 40CFR60 to resurvey the repaired fugitive emissions components are subject to the resurvey provisions specified in 40CFR§§60.5397a(h)(4)(iii)(A) and (B).

A. A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 of appendix A-7 of 40CFR60 are used.

B. Operators must use the Method 21 monitoring requirements specified in 40CFR§60.5397a(c)(8)(ii) or the alternative screening procedures specified in section 8.3.3 of Method 21 of appendix A-7 of 40CFR60.

iv. Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the resurvey provisions specified in 40CFR§§60.5397a(h)(4)(iv)(A) and (B).

A. A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

B. Operators must use the optical gas imaging monitoring requirements specified in 40CFR§60.5397a(c)(7).

i. Records for each monitoring survey shall be maintained as specified 40CFR§60.5420a(c)(15).

j. Annual reports shall be submitted for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station that include the information specified in 40CFR§60.5420a(b)(7). Multiple collection of fugitive emissions components at a well site or at a compressor station may be included in a single annual report.

[45CSR16; 40CFR§60.5397a; 45CSR13, R13-3313, Condition 4.1.4.]

7.1.2. The permittee must determine initial compliance with the standards for each affected facility. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for the affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than 1 full year.

a. To achieve initial compliance with the fugitive emission standards for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station, the permittee must comply with paragraphs (j)(1) through (5) of 40CFR§60.5410a.

1. The permittee must develop a fugitive emissions monitoring plan as required in 40CFR§§60.5397a(b), (c), and (d).

2. The permittee must conduct an initial monitoring survey as required in 40CFR§60.5397a(f).

3. The permittee must maintain the records specified in 40CFR§60.5420a(c)(15).

4. The permittee must repair each identified source of fugitive emissions for each affected facility as required in 40CFR§60.5397a(h).

5. The permittee must submit the initial annual report for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station as required in 40CFR§§60.5420a(b)(1) and (7).

[45CSR16; 40CFR§60.5410a(j)]

7.1.3. For each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station, the permittee must demonstrate continuous compliance with the fugitive emission standards specified in 40CFR§60.5397a(a)(1) according to the following paragraphs:

a. The permittee must conduct periodic monitoring surveys as required in 40CFR§60.5397a(g).

b. The permittee must repair each identified source of fugitive emissions as required in 40CFR§60.5397a(h).

c. The permittee must maintain records as specified in 40CFR§60.5420a(c)(15).

d. The permittee must submit annual reports for collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station as required in 40CFR§§60.5420a(b)(1) and (7).

[45CSR16; 40CFR§60.5415a(h)]

7.1.4. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40CFR§60.8(c) do not apply to 40CFR60, Subpart OOOOa.
[45CSR16; 40CFR§60.5370a(b)]

7.2. Monitoring Requirements

7.2.1. None

7.3. Testing Requirements

7.3.1. None

7.4. Recordkeeping Requirements

7.4.1. The permittee must maintain the records identified as specified in §60.7(f) and in paragraphs (c)(1) through (18) of 40CFR§60.5420a. All records required by 40CFR60, Subpart OOOOa must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40CFR60, Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

For each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station, maintain the records identified in paragraphs (c)(15)(i) through (viii) of 40CFR§60.5420a.

a. The date of the startup of production or the date of the first day of production after modification for each collection of fugitive emissions components at a well site and the date of startup or the date of modification for each collection of fugitive emissions components at a compressor station.

b. For each collection of fugitive emissions components at a well site where the permittee completes the removal of all major production and processing equipment such that the well site contains only one or more wellheads, record the date the well site completes the removal of all major production and processing equipment from the well site, and, if the well site is still producing, record the well ID or

separate tank battery ID receiving the production from the well site. If major production and processing equipment is subsequently added back to the well site, record the date that the first piece of major production and processing equipment is added back to the well site.

c. The fugitive emissions monitoring plan as required in 40CFR§§60.5397a(b), (c), and (d).

d. The records of each monitoring survey as specified in paragraphs (c)(15)(vii)(A) through (I) of 40CFR§60.5420a.

1. Date of the survey.

2. Beginning and end time of the survey.

3. Name of the operator(s), training, and experience of the operator(s) performing the survey.

4. Monitoring instrument used.

5. Fugitive emissions component identification when Method 21 of appendix A-7 of 40CFR60 is used to perform the monitoring survey.

6. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey. For compressor stations, operating mode of each compressor (i.e., operating, standby pressurized, and not operating-depressurized modes) at the station at the time of the survey.

7. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

8. Records of calibration for the instrument used during the monitoring survey.

9. Documentation of each fugitive emission detected during the monitoring survey, including the information specified in paragraphs (c)(15)(vii)(I)(1) through (9) of 40CFR§60.5420a.

i. Location of each fugitive emission identified.

ii. Type of fugitive emissions component, including designation as difficult-to-monitor or unsafe-to-monitor, if applicable.

iii. If Method 21 of appendix A-7 of 40CFR60 is used for detection, record the component ID and instrument reading.

iv. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph or video must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken and must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture). The digital photograph or identification (e.g., tag) may be removed after the repair is completed, including verification of repair with the resurvey.

v. The date of first attempt at repair of the fugitive emissions component(s).

vi. The date of successful repair of the fugitive emissions component, including the resurvey to verify repair and instrument used for the resurvey.

vii. Identification of each fugitive emissions component placed on delay of repair and explanation for each delay of repair.

viii. For each fugitive emissions component placed on delay of repair for reason of replacement component unavailability, the operator must document: the date the component was added to the delay of repair list, the date the replacement fugitive component or part thereof was ordered, the anticipated component delivery date (including any estimated shipment or delivery date provided by the vendor), and the actual arrival date of the component.

ix. Date of planned shutdowns that occur while there are any components that have been placed on delay of repair.

e. For each collection of fugitive emissions components at a well site or collection of fugitive emissions components at a compressor station complying with an alternative means of emissions limitation under 40CFR§60.5399a, the permittee must maintain the records specified by the specific alternative fugitive emissions standard for a period of at least 5 years.

f. If the permittee complies with the alternative GHG and VOC standard under 40CFR§60.5398b, in lieu of the information specified in paragraphs (c)(15)(vi) through (vii) of 40CFR§60.5420a, the permittee must maintain the records specified in 40CFR§60.5424b.

[45CSR16; 40CFR§§60.5420a(c) and (c)(15)]

7.5. Reporting Requirements

7.5.1. Reporting requirements. The permittee must submit annual reports containing the information specified in paragraphs (b)(1) through (8) and (12) of 40CFR§60.5420a and performance test reports as specified in paragraph (b)(9) or (10) of 40CFR§60.5420a, if applicable. The permittee must submit annual reports following the procedure specified in paragraph (b)(11) of 40CFR§60.5420a. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40CFR§60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. The permittee may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (8) and (12) of 40CFR§60.5420a. Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included. The permittee may arrange with the Administrator a common schedule on which reports required by 40CFR60 may be submitted as long as the schedule does not extend the reporting period.

a. The general information specified in paragraphs (b)(1)(i) through (iv) of 40CFR§60.5420a is required for all reports.

1. The company name, facility site name associated with the affected facility, US Well ID or US Well ID associated with the affected facility, if applicable, and address of the affected facility. If an address is not available for the site, include a description of the site location and provide the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

2. An identification of each affected facility being included in the annual report.

3. Beginning and ending dates of the reporting period.

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

b. For the collection of fugitive emissions components at each well site and the collection of fugitive emissions components at each compressor station, report the information specified in paragraphs (b)(7)(i) through (iii) of 40CFR§60.5420a, as applicable.

1. i. Designation of type of site (i.e., well site or compressor station) at which the collection of fugitive emissions components is located.

ii. For each collection of fugitive emissions components at a well site that became an affected facility during the reporting period, the permittee must include the date of the startup of production or the date of the first day of production after modification. For each collection of fugitive emissions components at a compressor station that became an affected facility during the reporting period, the permittee must include the date of startup or the date of modification.

iii. For each collection of fugitive emissions components at a well site where during the reporting period the permittee completes the removal of all major production and processing equipment such that the well site contains only one or more wellheads, the permittee must include the date of the change to status as a wellhead only well site.

iv. For each collection of fugitive emissions components at a well site where the permittee previously reported under paragraph (b)(7)(i)(C) of 40CFR§60.5420a the removal of all major production and processing equipment and during the reporting period major production and processing equipment is added back to the well site, the date that the first piece of major production and processing equipment is added back to the well site.

2. For each fugitive emissions monitoring survey performed during the annual reporting period, the information specified in paragraphs (b)(7)(ii)(A) through (G) of 40CFR§60.5420a.

i. Date of the survey.

ii. Monitoring instrument used.

iii. Any deviations from the monitoring plan elements under 40CFR§§60.5397a(c)(1), (2), and (7) and (c)(8)(i) or a statement that there were no deviations from these elements of the monitoring plan.

iv. Number and type of components for which fugitive emissions were detected.

v. Number and type of fugitive emissions components that were not repaired as required in 40CFR§60.5397a(h).

vi. Number and type of fugitive emission components (including designation as difficult-to-monitor or unsafe-to-monitor, if applicable) on delay of repair and explanation for each delay of repair.

vii. Date of planned shutdown(s) that occurred during the reporting period if there are any components that have been placed on delay of repair.

3. For each collection of fugitive emissions components at a well site or collection of fugitive emissions components at a compressor station complying with an alternative fugitive emissions standard under 40CFR§60.5399a, in lieu of the information specified in paragraphs (b)(7)(i) and (ii) of 40CFR§60.5420a, the permittee must provide the information specified in paragraphs (b)(7)(iii)(A) through (C) of 40CFR§60.5420a.

   i. The alternative standard with which the permittee is complying.

   ii. The site-specific reports specified by the specific alternative fugitive emissions standard, submitted in the format in which they were submitted to the state, local, or tribal authority. If the report is in hard copy, the permittee must scan the document and submit it as an electronic attachment to the annual report required in paragraph (b) of 40CFR§60.5420a.

   iii. If the report specified by the specific alternative fugitive emissions standard is not site-specific, the permittee must submit the information specified in paragraphs (b)(7)(i) and (ii) of 40CFR§60.5420a for each individual site complying with the alternative standard.

4. If the permittee complies with the alternative GHG and VOC standard under 40CFR§60.5398b, in lieu of the information specified in paragraph (b)(7)(ii) of 40CFR§60.5420a, the permittee must provide the information specified in 40CFR§60.5424b.

c. The permittee must submit reports to the EPA via CEDRI, except as outlined in 40CFR§60.5420a(b)(11). CEDRI can be accessed through the EPA's CDX (https://cdx.epa.gov/). The permittee must use the appropriate electronic report template on the CEDRI website for 40CFR60, Subpart OOOOa (https://www.epa.gov/electronic-reporting-air-emissions/cedri/). If the reporting form specific to Subpart OOOOa is not available on the CEDRI website at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40CFR§60.4. Once the form has been available in CEDRI for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The date reporting forms become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the reports must be submitted by the deadlines specified in Subpart OOOOa, regardless of the method in which the reports are submitted. The EPA will make all the information submitted through CEDRI available to the public without further notice. Do not use CEDRI to submit information claimed as CBI.

[45CSR16; 40CFR§§60.5420a(b), (b)(1), (b)(7), and (b)(11)]

7.6. Compliance Plan

7.6.1. None