

West Virginia Department of Environmental Protection

Austin Caperton  
Cabinet Secretary

# Title V Operating Permit Revision



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

**Permit Action Number:** SM01 **SIC:** 4922  
**Name of Permittee:** Columbia Gas Transmission, LLC  
**Facility Name/Location:** Files Creek Compressor Station  
**County:** Randolph  
**Facility Address:** 1700 MacCorkle Avenue, SE, Charleston, WV 25314

**Description of Permit Revision:** This modification incorporates the changes approved under R13-3164C. The fuel gas heater was originally permitted with a heat input capacity of 0.25 MMBTU/hr. Construction is currently ongoing, and facility determined that a 0.25 MMBTU/hr heater is not sufficient for the turbines at the facility. This modification will increase the size to 0.3 MMBTU/hr. The 0.3 MMBTU/hr heater was installed in August 2019.

**Title V Permit Information:**

**Permit Number:** R30-08300019-2018  
**Issued Date:** April 17, 2018  
**Effective Date:** May 1, 2018  
**Expiration Date:** April 17, 2023

**Directions To Facility:** The station is located on Files Creek Road and WV Secondary Route 37/8, approximately 3 miles south of the town of Beverly.

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

A handwritten signature in blue ink, reading "Laura M. Crowder".

Laura M. Crowder  
Director, Division of Air Quality

June 8, 2020

Date Issued

Permit Number: **R30-08300019-2018**  
Permittee: **Columbia Gas Transmission, LLC**  
Facility Name: **Files Creek Compressor Station**  
Permittee Mailing Address: **1700 MacCorkle Avenue SE, Charleston, WV 25314**

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

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Facility Location:	Beverly, Randolph County, West Virginia
Facility Mailing Address:	3.5M SE Files Creek Rd., Secondary Rt. 37/8, Beverly, WV 26253
Telephone Number:	304-357-2196
Type of Business Entity:	LLC
Facility Description:	Natural gas compressor station
SIC Codes:	4922
UTM Coordinates:	601.1 km Easting • 4,297.3 km Northing • Zone 17

Permit Writer: Denton McDerment

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

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

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

### 1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
00907	E07	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1957	2,000 hp	N/A
00908	E08	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1968	2,000 hp	N/A
00909	E09	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1969	2,000 hp	N/A
00910	E10	Reciprocating Engine/Integral Compressor; Cooper-Bessemer GMWA-8; 2-cycle, lean burn	1969	2,000 hp	N/A
009G4	G4	Dresser Waukesha VGF-L36GL reciprocating engine/generator set (Emergency Generator #3); 4-cycle, lean burn	2015	880 hp	None
009T1	T01	Solar Taurus 70 Turbine #1 / Compressor 009T1 with passive combustion controls known as SoLoNO <sub>x</sub>	2015	9,749 HP @ 59 °F 10,682 HP at 0 °F	Combustion Controls
009T2	T02	Solar Taurus 70 Turbine #2 / Compressor 009T2 with passive combustion controls known as SoLoNO <sub>x</sub>	2015	9,749 HP @ 59 °F 10,682 HP at 0 °F	Combustion Controls
009T3	T03	Solar Taurus 70 Turbine #3 / Compressor 009T3 with passive combustion controls known as SoLoNO <sub>x</sub>	2017	10,418 HP @ 32 °F	Combustion Controls
009T4	T04	Solar Taurus 70 Turbine #4 / Compressor 009T4 with passive combustion controls known as SoLoNO <sub>x</sub>	2017	10,418 HP @ 32 °F	Combustion Controls
HTR1	H1	Space Heaters #1-9	N/A	0.965 MMBtu/hr (total)	None
HTR2	H2	Line Heater	2015	0.5 MMBtu/hr	None
HTR3	SH1	85 catalytic natural gas-fired space heaters	2015	30 x 0.072 14 x 0.030 4 x 0.036 37 x 0.0025 MMBtu/hr	None
HTR4	H4	Line Heater	2015	0.5 MMBtu/hr	None
HTR5	H5	Fuel Gas Heater	<del>2017</del> 2019	0.2530 MMBtu/hr	None
HTR6	SH2	22 Catalytic Heaters	2017	4 x 0.005 18 x 0.072 MMBTU/hr	None

## 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
R13-3164 <del>B</del> -C	<del>May 6, 2016</del> <a href="#">April 9, 2020</a>

## 2.0 General Conditions

### 2.1 Definitions

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

### 2.2 Acronyms

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

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

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

### **2.4. Permit Actions**

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

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

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

**[45CSR§30-6.6.a.]**

## **2.6. Administrative Permit Amendments**

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

## **2.7. Minor Permit Modifications**

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

## **2.8. Significant Permit Modification**

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

## **2.9. Emissions Trading**

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

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

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



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

**[45CSR§30-5.9.]**

## **2.11. Operational Flexibility**

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

**[45CSR§30-5.8]**

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

**[45CSR§30-5.8.a.]**

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

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

**[45CSR§30-5.8.c.]**

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

**[45CSR§30-2.39]**

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

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

**[45CSR§30-5.1.i.]**

## **2.13. Duty to Comply**

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

**[45CSR§30-5.1.f.1.]**

## **2.14. Inspection and Entry**

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

**[45CSR§30-5.3.b.]**

## **2.15. Schedule of Compliance**

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

**[45CSR§30-5.3.d.]**

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

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

**[45CSR§30-5.1.f.2.]**

## **2.17. Emergency**

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

**[45CSR§30-5.7.a.]**

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

**[45CSR§30-5.7.b.]**

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

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

**[45CSR§30-5.7.c.]**

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

**[45CSR§30-5.7.d.]**

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

**[45CSR§30-5.7.e.]**

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

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

**[45CSR§30-5.2.a.]**

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

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

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

**[45CSR§30-5.1.f.5.]**

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

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

**[45CSR§30-4.2.]**

## **2.21. Permit Shield**

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

**[45CSR§30-5.6.a.]**

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

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

**[45CSR§30-5.6.c.]**

## **2.22. Credible Evidence**

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

**[45CSR§30-5.3.e.3.B. and 45CSR38]**

## **2.23. Severability**

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

**[45CSR§30-5.1.e.]**

## **2.24. Property Rights**

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

**[45CSR§30-5.1.f.4]**

## **2.25. Acid Deposition Control**

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

**[45CSR§30-5.1.d.]**

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

**[45CSR§30-5.1.a.2.]**

### 3.0 Facility-Wide Requirements

#### 3.1 Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

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

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

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

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

- 3.1.9. 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. Reserved.

### **3.3. Testing Requirements**

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

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the



Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
  1. The permit or rule evaluated, with the citation number and language.
  2. The result of the test for each permit or rule condition.
  3. A statement of compliance or non-compliance with each permit or rule condition.

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

### 3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
  - a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.]

- 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 57<sup>th</sup> Street SE  
Charleston, WV 25304

#### US EPA:

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

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

DEPAirQualityReports@wv.gov

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

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

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

**DAQ:**  
DEPAirQualityReports@wv.gov

**US EPA:**  
R3\_APD\_Permits@epa.gov

[45CSR§30-5.3.e.]

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

**DAQ:**  
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

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

3.5.8. **Deviations.**

- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
  2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
  3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

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

[45CSR§30-5.1.c.3.C.]

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

[45CSR§30-5.1.c.3.B.]

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

[45CSR§30-4.3.h.1.B.]

### 3.6. Compliance Plan

- 3.6.1. Reserved.

### 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. **45CSR10 – To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.** WVDAQ has determined that this rule does not apply to natural gas-fired reciprocating internal combustion engines. The turbines (009T1, 009T2, 009T3, and 009T4) do not meet the definitions of either fuel burning unit, or source operation, in 45CSR§§10-2.8. and 2.19, respectively. Consequently, this rule does not apply to the turbines. Each of the heaters HTR1, HTR2, HTR3, HTR4, HTR5, and HTR6, are less than 10 MMBtu/hr design heat input. Therefore, they are exempt from the mass rate limit and other testing and MRR requirements in rule sections 3 and 6 through 8 due to the heat input being less than 10 MMBtu/hr in accordance with 45CSR§10-10.1. Additionally, none of the heaters are a source operation as defined in 45CSR§10-2.19.; therefore, 45CSR§10-4.1. is not applicable.
- b. **45CSR21 – To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds.** This facility is not located in one of the affected counties listed in 45CSR§21-1.1.; therefore, 45CSR21 is not applicable to this facility.
- c. **45CSR27 – To Prevent and Control the Emissions of Toxic Air Pollutants.** Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment “used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.”

- d. **40 C.F.R. 60 Subpart Dc – Standards of Performance for Steam Generating Units.** The line heaters HTR2 and HTR4 at this facility are less than 10 MMBtu/hr design heat capacity, which is below the applicability criteria stated in 40 C.F.R. §60.40c(a).
- e. **40 C.F.R. 60 Subparts K, Ka – Standards of Performance for Storage Vessels for Petroleum Liquids.** All tanks (except for tank A12) at Files Creek station are below 40,000 gallons in capacity (§60.110(a) and §60.110a(a)). Tank A12 does not store petroleum liquids, hence it is exempt (§60.110(a) and §60.110a(a)).
- f. **40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.** 40 C.F.R. §60.110b(a) states, “Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.” All tanks (except for tank A12) at Files Creek station are below 75 m<sup>3</sup> in capacity. Since the vessels do not meet applicability criterion at 40 C.F.R. §60.110b(a), this regulation does not apply to these tanks. Tank A12 is 55,000 gallons in capacity, which is approx. 208.2 cubic meters, and stores liquid less than 3.5 kPa true vapor pressure. 40 C.F.R. §60.110b(b) states “This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m<sup>3</sup> but less than 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 15.0 kPa.” Thus, this regulation does not apply to tank A12.
- g. **40 C.F.R. 60 Subpart KKK – Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant.** Files Creek Station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both.
- h. **40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.** As provided in 40 C.F.R. §60.4305(b), the provisions of Subpart GG are not applicable because the stationary combustion turbines (009T1, 009T2, 009T3, and 009T4) are subject to 40 C.F.R. 60 Subpart KKKK.
- i. **40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** None of the engines at the facility are compression ignition type; therefore, this regulation does not apply.
- j. **40 C.F.R. 60 Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015.** The Storage Vessel requirements defined for transmission sources were evaluated for liquids storage vessels C09, C10, C11, C12, and C13 and were found not to be applicable because emissions are below the 6 tpy VOC threshold in accordance with 40 C.F.R. §60.5365(e). The Reciprocating Engine/Integral Compressors (00907, 00908, 00909, and 00910) at this site are not subject to this regulation due to not commencing construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015. The turbines 009T1 and 009T2 were constructed in 2015, but their compressors are not subject to the wet seal centrifugal compressor requirements in §60.5365(b) because their compressors are dry seal type per technical correspondence received from the permittee on February 9, 2018.

- k. **40 C.F.R. 63 Subpart HHH – National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.** The Transmission Station is not subject to Subpart HHH since there are no affected dehydration units utilized at this site.
- l. **40 C.F.R. Part 64 – Compliance Assurance Monitoring (CAM).** The engines and tank (A12) do not have any add-on control; therefore, in accordance with 40 C.F.R §64.2(a)(2), CAM is not applicable to these sources. The turbines (009T1, 009T2, 009T3, and 009T4) utilize low-NO<sub>x</sub> combustion controls; however, the use of combustion or other process design features or characteristics are not included in the definition of *Control device* in 40 C.F.R. §64.1. Moreover, the preamble to 40 C.F.R. Part 64 specifically states that low-NO<sub>x</sub> burner technology is not included in the definition of *Control device* for the final rule. Since a *Control device* is not utilized for the turbines, they do not meet the applicability criterion in §64.2(a)(2) and therefore CAM is not applicable to the turbines.

### 3.8. Emergency Operating Scenario

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

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
- b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
- c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
- d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) business days;
- e. The permittee must provide written notification to the Director within five (5) business days of the replacement. This notification must contain:
  - i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
  - ii. Identification of the engine(s) being temporarily replaced;
  - iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
  - iv. Projected duration of the replacement engine(s); and
  - v. The appropriate certification by a responsible official.

[45CSR§30-12.7.]

#### **4.0 Miscellaneous Indirect Natural Gas Heaters and Boilers [emission unit IDs: HTR2, HTR4, HTR5]**

##### **4.1 Limitations and Standards**

- 4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1.; 45CSR13, R13-3164, 7.1.2.]

##### **4.2 Monitoring Requirements**

- 4.2.1. At such reasonable times as the Secretary may designate, the ~~registrant~~ permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with permit condition 4.1.1. Method 9 shall be conducted in accordance with 40 C.F.R. 60 Appendix A. [45CSR13, R13-3164, 7.2.1.]

##### **4.3 Testing Requirements**

- 4.3.1. Upon request by the Secretary, compliance with the visible emission requirements of permit condition 4.1.1 shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the 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 4.1.1. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control. [45CSR13, R13-3164, 7.3.1.; 45CSR§2-3.2.]

##### **4.4 Recordkeeping Requirements**

- 4.4.1. The permittee shall maintain records of all monitoring data required by permit condition 4.2.1 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 ~~registrant~~ 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, R13-3164, 7.4.1.]

##### **4.5 Reporting Requirements**

- 4.5.1. Reserved.

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

- 4.6.1. Reserved.

## 5.0 40 C.F.R. 63 Subpart ZZZZ RICE MACT Requirements [emission point ID: G4]

### 5.1. Limitations and Standards

5.1.1. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If you do not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under 40 C.F.R. 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) counts as part of the 100 hours per calendar year allowed by this paragraph (2).
  - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
  - (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

**[40 C.F.R. §63.6640(f); 45CSR34; 45CSR13, R13-3164, 6.1.9.]**



## **5.2. Monitoring Requirements**

5.2.1. Reserved.

## **5.3. Testing Requirements**

5.3.1. Reserved.

## **5.4. Recordkeeping Requirements**

5.4.1. Reserved.

## **5.5. Reporting Requirements**

5.5.1. If you are required to submit an Initial Notification but are otherwise not affected by the requirements of 40 C.F.R. 63 Subpart *ZZZZ*, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v) (specified below), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

- (i) The name and address of the owner or operator;
- (ii) The address (i.e., physical location) of the affected source;
- (iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;
- (iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and
- (v) A statement of whether the affected source is a major source or an area source.

[40 C.F.R. §63.6645(f); 45CSR34; 45CSR13, R13-3164, 6.6.2.]

## **5.6. Compliance Plan**

5.6.1. Reserved.

**6.0 40 C.F.R. 63 Subpart DDDDD Boiler MACT Major HAP Source Requirements [emission unit ID(s): HTR2, HTR4, HTR5; emission point ID(s): H2, H4, H5]**

**6.1. Limitations and Standards**

6.1.1. You must meet the requirements in paragraphs (a)(1) through (3) of 40 C.F.R. §63.7500, except as provided in paragraphs (b), through (e) of §63.7500. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of §63.7500.

You must meet the work practice standard in Item 1 of Table 3 to this subpart for each boiler or process heater at your source, except as provided under §63.7522.

If your unit is...	You must meet the following...
1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater	Conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540 (condition 6.1.3.).

**[40 C.F.R. §§ 63.7500(a), (a)(1), and Item 1 of Table 3 to Subpart DDDDD; 40 C.F.R. §§ 63.7500(e) and 63.7505(a); 45CSR34; 45CSR13, R13-3164, 8.1.9.]**

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

**[40 C.F.R. §63.7500(a)(3); 45CSR34; 45CSR13, R13-3164, 8.1.8.]**

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

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

- ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;
  - iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject;
  - v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
  - vi. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (vi)(A) through (B) of this condition.
    - (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
    - (B) A description of any corrective actions taken as a part of the tune-up.
- If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.
  - Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in §63.7490), the first 5-year tune-up must be no later than 61 months after April 1, 2013 or the initial startup of the new or reconstructed affected source, whichever is later.

[40 C.F.R. §§ 63.7540(a), (a)(12), and (a)(13); 40 C.F.R. §§ 63.7510(g) and 63.7515(d); 45CSR34; 45CSR13, R13-3164, 8.2.1., 8.3.1., 8.5.1., 8.5.2., and 8.5.3.]

## 6.2. Monitoring Requirements

- 6.2.1. Reserved.

## 6.3. Testing Requirements

- 6.3.1. Reserved.

#### 6.4. Recordkeeping Requirements

6.4.1. You must keep records according to paragraph (a)(1) of 40 C.F.R. §63.7555.

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

**[40 C.F.R. §§ 63.7555(a) and (a)(1); 45CSR34; 45CSR13, R13-3164, 8.8.1.]**

6.4.2. **Format and Retention of Records for 40 C.F.R. 63 Subpart DDDDD.**

- (a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years.

**[40 C.F.R. §§ 63.7560(a), (b), and (c); 45CSR34; 45CSR13, R13-3164, 8.8.5., 8.8.6., and 8.8.7.]**

#### 6.5. Reporting Requirements

6.5.1. **Compliance Report.** You must submit a Compliance Report that contains the information required in 40 C.F.R §§63.7550(c)(1) and (5):

- (1) If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (5)(i) through (iii), (xiv) and (xvii) of this condition.
- (5) (i) Company and Facility name and address.
- (ii) Process unit information, emissions limitations, and operating parameter limitations.
- (iii) Date of report and beginning and ending dates of the reporting period.
- (xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct a 5-year tune-up according to §63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.
- (xvii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

For units that are subject only to a requirement to conduct subsequent 5-year tune-up according to §63.7540(a)(12), and not subject to emission limits or Table 4 operating limits, you may submit only a 5-year compliance report, as specified in paragraphs (1) through (4) of this condition:

- (1) The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in §63.7495.
- (2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.
- (3) Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.
- (4) Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.
- (5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

**[40 C.F.R. §63.7550(a), Table 9, Item 1.a.; 40 C.F.R. §§ 63.7550(b), (c), and (h)(3); 45CSR34; 45CSR13, R13-3164, 8.7.1., 8.7.2., 8.7.3., and 8.7.4.]**

## **6.6. Compliance Plan**

- 6.6.1. Reserved.

## **7.0 40 C.F.R. 60 Subpart JJJJ NSPS Requirements [emission point ID: G4]**

### **7.1. Limitations and Standards**

- 7.1.1. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 of 40CFR60 Subpart JJJJ for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 of 40CFR60 Subpart JJJJ, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.  
**[40 C.F.R. §60.4233(e); 45CSR16; 45CSR13, R13-3164, 6.2.1.]**
- 7.1.2. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.  
**[40 C.F.R. §60.4233(h); 45CSR16; 45CSR13, R13-3164, 6.2.2.]**
- 7.1.3. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.  
**[40 C.F.R. §60.4234; 45CSR16; 45CSR13, R13-3164, 6.2.3. and 6.3.2.]**
- 7.1.4. 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.  
**[40 C.F.R. §60.4237(a); 45CSR16; 45CSR13, R13-3164, 6.3.1.]**
- 7.1.5. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.  
**[40 C.F.R. §60.4236(c); 45CSR16; 45CSR13, R13-3164, 6.3.3.]**
- 7.1.6. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of 40 CFR §60.4243.
- a. Purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of 40 CFR §60.4243.
  - b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of 40 CFR §60.4243.
2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and

conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

**[40 C.F.R. §60.4243(b)(2)(ii); 45CSR16; 45CSR13, R13-3164, 6.4.1.]**

7.1.7. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of 40 CFR §60.4243. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of 40 CFR §60.4243, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of 40 CFR §60.4243, the engine will not be considered an emergency engine under 40 CFR 60 Subpart JJJJ and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of 40 CFR §60.4243 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of 40 CFR §60.4243 counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
  - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of 40 CFR §60.4243. Except as provided in paragraph (d)(3)(i) of 40 CFR §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.
  - (i) 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:
    - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - (B) 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.

- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) 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.

**[40 C.F.R. §60.4243(d); 45CSR16; 45CSR13, R13-3164, 6.4.2.]**

- 7.1.8. 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 §60.4233.

**[40 C.F.R. §60.4243(e); 45CSR16; 45CSR13, R13-3164, 6.4.3.]**

## 7.2. Monitoring Requirements

- 7.2.1. Reserved.

## 7.3. Testing Requirements

- 7.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of 40 CFR 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 §60.8 and under the specific conditions that are specified by Table 2 to 40 CFR 60 Subpart JJJJ.

**[40 C.F.R. §60.4244(a)]**

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

**[40 C.F.R. §60.4244(b)]**

- c. You must conduct three separate test runs for each performance test required in 40 CFR 60 Subpart JJJJ, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

**[40 C.F.R. §60.4244(c)]**

- d. To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of 40 CFR §60.4244:

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



Where:

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

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

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

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

T = Time of test run, in hours.

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

**[40 C.F.R. §60.4244(d)]**

- e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of 40 CFR §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<sub>d</sub>= Measured CO concentration in ppmv.

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

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

T = Time of test run, in hours.

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

**[40 C.F.R. §60.4244(e)]**

- f. For purposes of 40 CFR 60 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 40 CFR §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<sub>d</sub>= VOC concentration measured as propane in ppmv.

$1.833 \times 10^{-3}$  = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

**[40 C.F.R. §60.4244(f)]**

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of 40 CFR §60.4244. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR §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.

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

Where:

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

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

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

Where:

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

**[40 C.F.R. §§60.4244 and 60.4244(a) through (g); 45CSR16; 45CSR13, R13-3164, 6.5.1.]**

## 7.4. Recordkeeping Requirements

7.4.1. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

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

1. All notifications submitted to comply with 40 CFR 60 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 90, 1048, 1054, and 1060, as applicable.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

**[40 C.F.R. §60.4245(a)]**

b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

**[40 C.F.R. §60.4245(b)]**

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

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.

**[40 C.F.R. §60.4245(c)]**

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

**[40 C.F.R. §60.4245(d)]**

**[40 C.F.R. §§60.4245 and 60.4245(a) through (d); 45CSR16; 45CSR13, R13-3164, 6.6.1.]**

## **7.5. Reporting Requirements**

7.5.1. Reserved.

## **7.6. Compliance Plan**

7.6.1. Reserved.

**8.0 40 C.F.R. 60 Subpart KKKK NSPS Requirements [Em. Unit IDs: 009T1, 009T2, 009T3, and 009T4; Em. Point IDs: T01, T02, T03, and T04]**

**8.1. Limitations and Standards**

8.1.1. **Nitrogen Oxides Limitation.** You must meet the emission limits for NO<sub>x</sub> specified in Table 1 to this subpart.

**Table 1 to Subpart KKKK of Part 60 – Nitrogen Oxide Emission Limit**

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO <sub>x</sub> emission standard
New turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 percent O <sub>2</sub> or 150 ng/J of useful output (1.2 lb/MWh)
Turbines operating at less than 75 percent of peak load, and turbine operating at temperatures less than 0 °F	≤ 30 MW output	150 ppm at 15 percent O <sub>2</sub> or 1,100 ng/J of useful output (8.7 lb/MWh).

[40 C.F.R. §60.4320(a) and Rows 3 and 12 of Table 1 to Subpart KKKK; 45CSR16; 45CSR13, R13-3164, 5.1.6.]

8.1.2. **Sulfur Dioxide Limitation.** If your turbine is located in a continental area, you must comply with either paragraph (a)(1), (a)(2), or (a)(3) of §60.4320.

(a)(2) You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

[40 C.F.R. §§ 60.4330(a) and (a)(2); 45CSR16; 45CSR13, R13-3164, 5.1.7.]

8.1.3. You must operate and maintain your stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[40 C.F.R. §60.4333(a); 45CSR16; 45CSR13, R13-3164, 5.1.8.]

**8.2. Monitoring Requirements**

8.2.1. You may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for units located in continental areas. You must use one of the following sources of information to make the required demonstration:

(a) 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 less than 26 ng SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for continental areas.

[40 C.F.R. §60.4365(a); 45CSR16; 45CSR13, R13-3164, 5.3.2.]

### **8.3. Testing Requirements**

- 8.3.1. If you are not using water or steam injection to control NO<sub>x</sub> emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO<sub>x</sub> emission result from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO<sub>x</sub> emission limit for the turbine, you must resume annual performance tests.

This initial compliance test shall be conducted within 60 days after achieving the maximum production rate at which the facility will be operated, and within 180 days of start-up, whichever is later.

[40 C.F.R. §§ 60.4340(a) and 60.8(a); 45CSR16; 45CSR13, R13-3164, 5.2.1. and 5.2.2.]

### **8.4. Recordkeeping Requirements**

- 8.4.1. Reserved.

### **8.5. Reporting Requirements**

- 8.5.1. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart (condition 8.2.1.), you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

[40 C.F.R. §60.4375(a); 45CSR16]

- 8.5.2. For each affected unit that performs annual performance tests in accordance with §60.4340(a) (condition 8.3.1.), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

[40 C.F.R. §60.4375(b); 45CSR16; 45CSR13, R13-3164, 5.4.1.]

- 8.5.3. Any owner or operator subject to the provisions of 40 C.F.R. part 60 shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

[40 C.F.R. §60.7(a)(3); 45CSR16]

### **8.6. Compliance Plan**

- 8.6.1. Reserved.

**9.0 45CSR13, Permit R13-3164 Requirements [emission point ID(s): T01, T02, T03, T04, G4, H1, H2, SH1, H4, H5, and SH2]**

**9.1. Limitations and Standards**

9.1.1. The Solar Taurus 70 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.

**[45CSR13, R13-3164, 5.1.1.]**

9.1.2. Maximum annual emissions from the Solar Taurus 70 turbines (T01, T02, T03, T04) shall not exceed the following:

Emission Point ID#	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>	PM <sub>10</sub>	CH <sub>2</sub> O
	tons/year					
T01	23.25	81.83	3.19	0.27	6.88	0.27
T02	23.25	81.83	3.19	0.27	6.88	0.27
T03	21.36	47.76	2.69	0.27	2.49	0.27
T04	21.36	47.76	2.69	0.27	2.49	0.27

**[45CSR13, R13-3164, 5.1.2.]**

9.1.3. Maximum hourly emissions from the Solar Taurus 70 turbines (T01, T02) shall not exceed the following:

Operating Parameter	T01	T02
<b>NO<sub>x</sub></b>		
Full Load @ 0 °F	15 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.87 lb/hr)	15 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.87 lb/hr)
Low Temp (<0 to -20 °F)	14.00 lb/hr	14.00 lb/hr
Very Low Temp (<-20 °F)	40.01 lb/hr	40.01 lb/hr
Low Load (<50%)	17.41 lb/hr	17.41 lb/hr
Startup/Shutdown	1.90 lb/event	1.90 lb/event
<b>CO</b>		
Full Load @ 0 °F	25 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.94 lb/hr)	25 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.94 lb/hr)
Low Temp (<0 to -20 °F)	20.29 lb/hr	20.29 lb/hr
Very Low Temp (<-20 °F)	30.44 lb/hr	30.44 lb/hr
Low Load (<50%)	1211.24 lb/hr	1211.24 lb/hr
Startup/Shutdown	166.50 lb/event	166.50 lb/event
<b>VOC</b>		
Full Load @ 0 °F	5 ppm <sub>v</sub> @ 15% O <sub>2</sub> (0.57 lb/hr)	5 ppm <sub>v</sub> @ 15% O <sub>2</sub> (0.57 lb/hr)
Low Temp (<0 to -20 °F)	1.16 lb/hr	1.16 lb/hr
Very Low Temp (<-20 °F)	1.16 lb/hr	1.16 lb/hr
Low Load (<50%)	13.84 lb/hr	13.84 lb/hr
Startup/Shutdown	1.90 lb/event	1.90 lb/event
<b>SO<sub>2</sub> (short term emission rate based on 20 gr S/100 scf)</b>		
Full Load @ 0 °F	5.13 lb/hr	5.13 lb/hr
<b>PM<sub>10</sub></b>		
Full Load @ 0 °F	1.62 lb/hr	1.62 lb/hr

**[45CSR13, R13-3164, 5.1.3.]**

9.1.4. Maximum hourly emissions from the Solar Taurus 70 turbines (T03, T04) shall not exceed the following:

<b>Operating Parameter</b>	<b>T03</b>	<b>T04</b>
<b>NO<sub>x</sub></b>		
Normal Load @ 32 °F	15 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.66 lb/hr)	15 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.66 lb/hr)
Low Temp (<0 °F)	13.98 lb/hr	13.98 lb/hr
Low Load (<50%)	14.45 lb/hr	14.45 lb/hr
Startup/Shutdown	1.90 lb/event	1.90 lb/event
<b>CO</b>		
Normal Load @ 32 °F	25 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.72 lb/hr)	25 ppm <sub>v</sub> @ 15% O <sub>2</sub> (4.72 lb/hr)
Low Temp (<0 °F)	20.26 lb/hr	20.26 lb/hr
Low Load (<50%)	586.42 lb/hr	586.42 lb/hr
Startup/Shutdown	166.50 lb/event	166.50 lb/event
<b>VOC</b>		
Normal Load @ 32 °F	5 ppm <sub>v</sub> @ 15% O <sub>2</sub> (0.54 lb/hr)	5 ppm <sub>v</sub> @ 15% O <sub>2</sub> (0.54 lb/hr)
Low Temp (<0 °F)	1.16 lb/hr	1.16 lb/hr
Low Load (<50%)	6.70 lb/hr	6.70 lb/hr
Startup/Shutdown	1.90 lb/event	1.90 lb/event
<b>SO<sub>2</sub> (short term emission rate based on 20 gr S/100 scf)</b>		
Normal Load @ 32 °F	4.92 lb/hr	4.92 lb/hr
<b>PM<sub>10</sub></b>		
Normal Load @ 32 °F	0.57 lb/hr	0.57 lb/hr

[45CSR13, R13-3164, 5.1.4.]

9.1.5. The Solar Taurus 70 turbines (T01, T02, T03, T04) shall consume no more than the following amounts of natural gas:

<b>Emission Point ID</b>	<b>Natural gas consumption</b>	
	<b>ft<sup>3</sup>/hr</b>	<b>MMscf/yr</b>
T01	88,081.8	749.70
T02	88,081.8	749.70
T03	84,436.2	739.66
T04	84,436.2	739.66

Note: T01 and T02 hourly natural gas consumption is based on 0 °F, T03 and T04 hourly natural gas consumption is based on 32 °F.

[45CSR13, R13-3164, 5.1.5.]



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

[45CSR13, R13-3164, 4.1.2.]

9.1.7. The permittee shall install, maintain, and operate all above-ground piping, valves, pumps, etc. that service lines in the transport of potential sources of regulated air pollutants to prevent any substantive fugitive escape of regulated air pollutants. Any above-ground piping, valves, pumps, etc. that shows signs of excess wear and that have a reasonable potential for substantive fugitive emissions of regulated air pollutants shall be repaired or replaced as needed.

[45CSR13, R13-3164, 4.1.4.]

9.1.8. **Maximum Yearly Operation Limitation.** The maximum yearly operating hours of the 880 hp natural gas fired reciprocating engine, Waukesha VGF36GL (G4) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-3164, 6.1.1. and 6.1.3.]

9.1.9. Maximum emissions from the 880 hp natural gas fired reciprocating engine, Waukesha VGF36GL (G4) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	3.88	0.97
Carbon Monoxide	2.52	0.63
Volatile Organic Compounds	0.47	0.12

[45CSR13, R13-3164, 6.1.2.]

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

Emission Unit ID#	Emission Unit Description	MDHI
HTR1	9 Space Heaters	0.965 MMBTU/hr TOTAL
HTR2	Line Heater	0.50 MMBtu/hr
HTR3	85 Catalytic Space Heaters	2.82 MMBTU/hr TOTAL
HTR4	Line Heater	0.50 MMBtu/hr
HTR5	Fuel Gas Heater	0.2530 MMBTU/hr
HTR6	22 Catalytic Heaters	1.32 MMBTU/hr TOTAL

[45CSR13, R13-3164, 7.1.1.]

- 9.1.11. *Stay of standards for gas-fired subcategories.* If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by 40 C.F.R. 63 Subpart YYYYY, you must comply with the Initial Notification requirements set forth in §63.6145 (condition 9.5.1.) but need not comply with any other requirement of 40 C.F.R. 63 Subpart YYYYY until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

**[40 C.F.R. §63.6095(d); 45CSR34] (T01, T02, T03, T04)**

- 9.1.12. Only those emission units/sources as identified in Table 1.0, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility. [45CSR13, R13-3164, 4.1.5]

## 9.2. Monitoring Requirements

- 9.2.1. Reserved.

## 9.3. Testing Requirements

- 9.3.1. In order to show compliance with the CO emission limits contained in 9.1.2 - 9.1.4 of this permit the permittee shall perform initial and periodic performance tests on each turbine using EPA approved methods (or other alternative methods approved by the Director). 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). The initial performance test shall be conducted within 180 days of startup. Subsequent testing shall be conducted at least every 5 years.

**[45CSR13, R13-3164, 5.2.2.]**

## 9.4. Recordkeeping Requirements

- 9.4.1. To demonstrate compliance with sections 9.1.2 - 9.1.5, the permittee shall maintain records of the amount of natural gas consumed and the hours of operation of each of the Solar Taurus 70 Turbines (T01, T02, T03, T04). Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

**[45CSR13, R13-3164, 5.3.1.]**

- 9.4.2. In order to demonstrate compliance with the emission limitations of conditions 9.1.2 – 9.1.4 of this permit the permittee will monitor and record the monthly operating hours for each operating parameter listed in permit conditions 9.1.3 and 9.1.4.

**[45CSR13, R13-3164, 5.3.3.]**

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

- a. The date, place as defined in this permit, and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;

- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

**[45CSR13, R13-3164, 4.1.1.]**

9.4.4. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

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

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

**[45CSR13, R13-3164, 4.1.3.]**

## **9.5. Reporting Requirements**

### **9.5.1. 40 C.F.R. 63 Subpart YYYY Notification Requirements**

- (a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), 63.8(f)(4), and 63.9(b) and (h) that apply to you by the dates specified.
- (b) As specified in §63.9(b)(2), if you start up your new or reconstructed stationary combustion turbine before March 5, 2004, you must submit an Initial Notification not later than 120 calendar days after March 5, 2004.
- (c) As specified in §63.9(b), if you start up your new or reconstructed stationary combustion turbine on or after March 5, 2004, you must submit an Initial Notification not later than 120 calendar days after you become subject to 40CFR63 Subpart YYYY.
- (d) If you are required to submit an Initial Notification but are otherwise not affected by the emission limitation requirements of 40CFR63 Subpart YYYY, in accordance with §63.6090(b), your notification must include the information in §63.9(b)(2)(i) through (v) and a statement that your new or reconstructed stationary combustion turbine has no additional emission limitation requirements and must explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary combustion turbine).

**[45CSR13, R13-3164, 5.4.2.; 40 C.F.R. §63.6145; 45CSR34] (T01, T02, T03, T04)**

- 9.5.2. Any deviation(s) from the allowable natural gas consumption limits of condition 9.1.5 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the extent of the deviation, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.  
**[45CSR13, R13-3164, 5.4.3.]**
- 9.5.3. Any deviation(s) from the allowable emission limits of conditions 9.1.2, 9.1.3 and 9.1.4 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the extent of the deviation, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.  
**[45CSR13, R13-3164, 5.4.4.]**

## **9.6. Compliance Plan**

- 9.6.1. Reserved.

## 10.0 Collection of Fugitive Emissions Facility-wide Pursuant to 40 C.F.R. §60.5397a

### 10.1. Limitations and Standards

- 10.1.1. The permittee must reduce fugitive greenhouse gas (GHG) (in the form of a limitation on emissions of methane) and VOC emissions from the permitted facility by complying with the following requirements.
- a. You must monitor all fugitive emission components, as defined in 40 CFR §60.5430a, in accordance with Section 10.2 of this permit. You must repair all sources of fugitive emissions in accordance with condition 10.1.2. below. You must keep records in accordance with Section 10.4 of this permit and report in accordance with Section 10.5 of this permit. For purposes of 40 CFR §60.5397a, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

#### [40 C.F.R. §60.5397a(a); 45CSR16]

- 10.1.2. Each identified source of fugitive emissions shall be repaired or replaced in accordance with conditions 10.1.2.a. and 10.1.2.b.
- a. Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.
  - b. If the repair or replacement 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 or replacement must be completed during the next compressor station shutdown, well shutdown, well shut-in, after an unscheduled, planned or emergency vent blowdown or within 2 years, whichever is earlier.
  - c. Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.
    1. For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.
    2. 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 for identification purposes. The digital photograph must include the date that the photograph was taken, 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).
    3. Operators that use Method 21 to resurvey the repaired fugitive emissions components are subject to the following resurvey provisions.
      - i. 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 are used.

- ii. Operators must use the Method 21 monitoring requirements specified in condition 10.2.2.h.2. or the alternative screening procedures specified in section 8.3.3 of Method 21.
- 4. Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the following resurvey provisions.
  - i. A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.
  - ii. Operators must use the optical gas imaging monitoring requirements specified in condition 10.2.2.g.

**[40 C.F.R. §60.5397a(h); 45CSR16]**

## **10.2. Monitoring Requirements**

- 10.2.1. You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at the compressor station within each company-defined area in accordance with conditions 10.2.2. and 10.2.3. **[40 C.F.R. §60.5397a(b); 45CSR16]**
- 10.2.2. Fugitive emissions monitoring plans must at a minimum, include the following elements:
  - a. Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by conditions 10.2.5. and 10.2.6.
  - b. Technique for determining fugitive emissions (*i.e.*, Method 21 at 40 CFR Part 60, Appendix A-7, or optical gas imaging).
  - c. Manufacturer and model number of fugitive emissions detection equipment to be used.
  - d. 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. Your repair schedule must at a minimum, meet the requirements of condition 10.1.2.
  - e. Procedures and timeframes for verifying fugitive emission component repairs.
  - f. Records that will be kept and the length of time records will be kept.
  - g. If you are using optical gas imaging, your plan must also include the following elements:
    - 1. Verification that your optical gas imaging equipment meets the following specifications. 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 fugitives emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging
      - i. Your 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.

- ii. Your 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  $\leq 60$ g/hr from a quarter inch diameter orifice.
  2. Procedure for a daily verification check.
  3. Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.
  4. 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.
  5. Procedures for conducting surveys, including the following items:
    - i. How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.
    - ii. How the operator will deal with adverse monitoring conditions, such as wind.
    - iii. How the operator will deal with interferences (e.g., steam).
  6. Training and experience needed prior to performing surveys.
  7. Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.
- h. If you are using Method 21 of Appendix A-7 of 40 CFR Part 60, your plan must also include the following elements. For the purposes of complying with the fugitive emissions monitoring program using Method 21 a fugitive emission is defined as an instrument reading of 500 ppm or greater.
  1. Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR Part 60, 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 you wish to use an analyzer other than a FID-based instrument, you 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 your compound of interest).
  2. Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR Part 60, Appendix A-7, including Section 8.3.1.

**[40 C.F.R. §60.5397a(c); 45CSR16]**

- 10.2.3. Each fugitive emissions monitoring plan must include at a minimum, the following elements, as applicable.
- a. Sitemap.
  - b. A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.
  - c. If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).
  - d. Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with condition 10.2.6.b.1, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with condition 10.2.6.b.2.

**[40 C.F.R. §60.5397a(d); 45CSR16]**

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

**[40 C.F.R. §60.5397a(e); 45CSR16]**

- 10.2.5. You must conduct an initial monitoring survey within 60 days of the startup of a new compressor station for each new collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive components at a compressor station, the initial monitoring survey must be conducted within 60 days of the modification or by June 3, 2017, whichever is later.

**[40 C.F.R. §60.5397a(f)(2); 45CSR16]**

- 10.2.6. A monitoring survey of each collection of fugitive emissions components at a compressor station must be performed at the frequencies specified in condition 10.2.6.a., with the exceptions noted in conditions 10.2.6.b. and c.

- a. A monitoring survey of the collection of fugitive emissions components at a compressor station within a company defined area must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.
- b. 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 following specifications:
  1. 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 conditions 10.2.1., 10.2.2., and 10.2.3.
  2. The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.
  3. The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.



4. The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.
- c. 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 following specifications:
    1. 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 conditions 10.2.1., 10.2.2., and 10.2.3.
    2. The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.
    3. The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.
    4. The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.
  - d. The requirements of condition 10.2.6.a. 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°Fahrenheit 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 condition 10.2.6.a. shall not be waived for two consecutive quarterly monitoring periods.

[40 C.F.R. §§60.5397a(g)(2), (3), (4) and (5); 45CSR16]

### **10.3. Testing Requirements**

- 10.3.1. Reserved.

### **10.4. Recordkeeping Requirements**

- 10.4.1. Records for each monitoring survey shall be maintained as specified §60.5420a(c)(15).  
[40 C.F.R. §60.5397a(i); 45CSR16]

- 10.4.2. Records for each collection of fugitive emissions components identified below must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60 Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.
- a. The fugitive emissions monitoring plan as required in conditions 10.2.1., 10.2.2., and 10.2.3.
  - b. The following records of each monitoring survey
    1. Date of the survey.
    2. Beginning and end time of the survey.
    3. Name of operator(s) performing survey. You must note the training and experience of the operator.
    4. Monitoring instrument used.
    5. When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph was taken and the latitude and longitude of the collection of fugitive emissions components at a well site or collection of fugitive emissions components at a compressor station imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.
    6. Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.
    7. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
    8. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
    9. Documentation of each fugitive emission, including the following information:
      - i. Location.
      - ii. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
      - iii. Number and type of components for which fugitive emissions were detected.
      - iv. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
      - v. Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.

- vi. Number and type of fugitive emissions components that were not repaired as required in condition 10.1.2.
  - vii. Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in condition 10.1.2.c.2.
  - viii. If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in in condition 10.1.2.c.2. The digital photograph or video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements under in condition 10.4.2.b.5., as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.
  - ix. Repair methods applied in each attempt to repair the fugitive emissions components.
  - x. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
  - xi. The date of successful repair of the fugitive emissions component.
  - xii. Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.
- c. For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under in condition 10.2.6.d., you must maintain records of the average calendar month temperature, including the source of the information, for each calendar month of the quarterly monitoring period for which the monitoring survey was waived.

**[40 C.F.R. §60.5397a(i), §60.5420a(c)(15); 45CSR16]**

## **10.5. Reporting Requirements**

- 10.5.1. Annual reports shall be submitted for each collection of fugitive emissions components that include the information specified in 40 CFR §60.5420a(b)(7).

**[40 C.F.R. §60.5397a(j); 45CSR16]**

10.5.2. You must submit annual reports containing the information specified in this permit condition. You must submit annual reports to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>.) You must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (<https://www3.epa.gov/ttn/chief/cedri/>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in 40 CFR §60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this permit, regardless of the method in which the reports are submitted. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR §60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included.

a. The following general information 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 compressor station within the company-defined area, the records of each monitoring survey including the following information. For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under condition 10.2.6.d, you must include in your annual report the fact that a monitoring survey was waived and the calendar months that make up the quarterly monitoring period for which the monitoring survey was waived.

1. Date of the survey.
2. Beginning and end time of the survey.
3. Name of operator(s) performing survey. If the survey is performed by optical gas imaging, you must note the training and experience of the operator.
4. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
5. Monitoring instrument used.

6. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
7. Number and type of components for which fugitive emissions were detected.
8. Number and type of fugitive emissions components that were not repaired as required in §60.5397a(h).
9. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
10. The date of successful repair of the fugitive emissions component.
11. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
12. Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

**[40 C.F.R. §60.5397a(j), §§60.5420a(b)(1), (b)(7) and (11); 45CSR16]**

## **10.6. Compliance Plan**

- 10.6.1. Reserved.