

PUBLIC NOTICE

Columbia Gulf Transmission, LLC has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for renewal of their major source (Title V) operating permit subject to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee's air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The applicant is **Columbia Gulf Transmission, LLC** with a site address of 4077 Booker Farm Road, Hampshire, TN 38461. They have applied for renewal of their existing major source (Title V) operating permit for their Natural Gas Pipeline Compressor Station operation.

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. In this case, EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA's 45-day review of these permits and the deadline for submitting a citizen's petition can be found at the following website address:

<https://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits>

Copies of the application materials and draft permits are available for public inspection during normal business hours at the following locations:

Tennessee Department of Environment and Conservation
Columbia Environmental Field Office
Division of Air Pollution Control
1421 Hampshire Pike
Columbia, TN 38401

and
Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Davy Crockett Tower, 7th Floor
500 James Robertson Parkway
Nashville, TN 37243

Electronic copies of the draft permits are available by accessing the TDEC internet site located at:

<https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html>

Questions concerning the source(s) may be addressed to J. Horton at 615-917-1968 or via e-mail at jimmie.horton@tn.gov.

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than **4:30 PM on July 24, 2026**. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Ms. Michelle W. Owenby, Director, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 15th Floor, Nashville, Tennessee 37243.
2. **E-mail:** Submit electronic comments to air.pollution.control@tn.gov.

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, Davy Crockett Tower, 5th Floor, 500 James Robertson Parkway, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243



OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (TAPCR). The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: TBD

Permit Number:

582189

Date Expires: TBD

Issued To:

Columbia Gulf Transmission, LLC - Hampshire Compressor Station

Installation Address:

4077 Booker Farm Road
Hampshire

Installation Description:

Natural Gas Pipeline Compressor Station Operation:

60-0095-02: Solar Mars Stationary Gas Turbine (413), NSPS 40 CFR 60, Subpart GG

60-0095-03: Seven Clark Reciprocating Compressor Engines (401-407)

60-0095-04: Two Waukesha and Ford Emergency Generator Engines (G3-G4), NESHAP 40 CFR 63, Subpart ZZZZ

60-0095-05: Solar Mars Stationary Gas Turbine (412), NSPS 40 CFR 60, Subpart GG

60-0095-06: Three Babcock & Wilcox Tank Heaters (H1-H3), NESHAP 40 CFR 63, Subpart DDDDD

Facility ID: 60-0095

Renewal Application Due Date:

Between TBD, and TBD

Primary SIC: 49

Information Relied Upon:

Title V Permit Application dated July 7, 2011

Title V Permit Application dated March 28, 2018

Title V Permit Application dated February 27, 2024

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

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SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of Tennessee Air Pollution Control Regulations (TAPCR) paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

- A1. Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulations.

TAPCR 1200-03 and 0400-30

- A2. Compliance requirement.** All terms and conditions in a permit issued pursuant to TAPCR paragraph 1200-03-09-.02(11), including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

- A3. Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. 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 the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

- A4. The permit.** The 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.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

- A5. Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

- A6. Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

- A7. Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. Fee payment.

- (a) The permittee shall pay an annual Title V fee in accordance with TAPCR 1200-03-26-.02(9) based upon the applicable base fee; the applicable permit modification fee(s); the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.
- (b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon the applicable base fee; the applicable permit modification fee(s); and their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.
- (c) When paying annual Title V emission fees, the permittee shall comply with all provisions of TAPCR Rule 1200-03-26-.02 and paragraph 1200-03-09-.02(11) applicable to such fees.
- (d) Where more than one allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of TAPCR paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.
1. Emissions of hazardous air pollutants (HAP) that are included in the particulate matter (including PM₁₀) category or the volatile organic compound category shall be included in those categories.
 2. HAP that are not included in either the particulate matter category or volatile organic compound category shall be included in the category of Hazardous Air Pollutants Not Included Above.
 3. Each individual HAP is subject to the 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i).
 4. Major sources that wish to pay annual emission fees for PM₁₀ on an allowable emission basis may do so if they have a specific PM₁₀ allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM₁₀ emission basis, it may do so if the PM₁₀ actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM₁₀ emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM₁₀ emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i) shall also apply to PM₁₀ emissions.
- (e) Emissions of pollutants that do not fall in one of the listed categories shall be included in the category of Miscellaneous Pollutants Not Listed Above. Each miscellaneous pollutant is subject to the 4,000-ton cap provisions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

- A9. Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

- A10. Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

- (a) Enter upon, at reasonable times, 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 the permit;
 - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - (d) As authorized by the Clean Air Act and Chapter 1200-03-10 of the TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, TAPCR Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3(ii)

A11. Permit shield.

- (a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:
1. Such applicable requirements are included and are specifically identified in the permit; or
 2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- (b) Nothing in this permit shall alter or affect the following:
1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;
 2. 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;
 3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or
 4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.
- (c) Permit shield is granted to the permittee.
- (d) The permit shield does not apply to permit changes made under the minor permit modification procedures of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) nor the administrative permit amendment procedures of TAPCR part 1200-03-09-.02(11)(f)4, except that the permit shield may be extended for administrative permit amendments that meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), subparagraph 1200-03-09-.02(11)(f) and subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
- (e) The permit shield does not apply to off-permit changes made under the operational flexibility provisions of TAPCR part 1200-03-09-.02(11)(a)4.

TAPCR 1200-03-09-.02(11)(e)6 and 1200-03-09-.02(11)(f)4(iv)

A12. Permit renewal and expiration.

- (a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.
- (b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in TAPCR paragraph 1200-03-09-.02(11).
- (c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

- (a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:
1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to TAPCR part 1200-03-09-.02(11)(a)2.
 2. Additional requirements become applicable to an affected source under the acid rain program.
 3. The Technical Secretary or 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.
 4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.
- (c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90-day time period.
2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.
3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).
4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7

A14. Permit transference. An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

- (a) Transfer of ownership permit application is filed consistent with the provisions of TAPCR paragraph 1200-03-09-.03(6), and
- (b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. Air pollution alert. When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR paragraph 1200-03-09-.03(1) and TAPCR Rule 1200-03-15-.03.

A16. Construction permit required. Except as exempted in TAPCR Rule 1200-03-09-.04, or excluded in TAPCR subparagraph 1200-03-02-.01(1)(aa) or TAPCR subparagraph 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. Notification of changes. The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

- (a) change in air pollution control equipment
- (b) change in stack height or diameter
- (c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. Schedule of compliance. The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis and no later than required by the provisions of the new applicable requirement. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3, 1200-03-09-.03(8), 0400-30-38, 0400-30-39, and 40 CFR Part 70.5(c)

A19. Title VI.

(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

TAPCR 1200-03-09-.03(8)

A20. 112 (r). Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. Recordkeeping. Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:

1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. Retention of monitoring data. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. 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.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. Reporting. Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. Certification. Except for reports required under "State Only" requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. Annual compliance certification. The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. Submission of compliance certification. The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	U.S. EPA Compliance and Emissions Data Reporting Interface (CEDRI) or Air Enforcement Branch US EPA Region IV EPA_R4_CAA_Reports@epa.gov
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TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. Emergency provisions. An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology-based emission limitation 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.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. 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.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in TAPCR Rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in TAPCR Rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in TAPCR Divisions 1200-03 and 0400-30 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. Excess emissions reporting.

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in TAPCR Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown, the probable cause of the deviation, and any corrective actions or preventative measures taken. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected.

In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in TAPCR Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved
2. Time malfunction, startup, or shutdown began and/or when first noticed
3. Type of malfunction and/or reason for shutdown
4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

- B9. Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

- B10.** Reserved.

- B11. Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit, within twenty days after receipt of the notice of violation, the data required below. If this data has been made available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same 20-day time period. The minimum data requirements are:

- (a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
- (b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation(s) and the operating data and calculations used in determining the magnitude of the excess emissions;
- (c) The time and duration of the emissions;
- (d) The nature and cause of such emissions;
- (e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;
- (f) The steps taken to limit the excess emissions during the occurrence reported, and
- (g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the 20-day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C

PERMIT CHANGES

- C1. Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:
- (a) The change cannot be subject to a requirement of Title IV of the Federal Act or TAPCR Chapter 1200-03-30.
 - (b) The change cannot be a modification under any provision of Title I of the federal Act or TAPCR Division 1200-03.
 - (c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.
 - (d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in TAPCR Rule 1200-03-09-.04.
 - (e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.
 - (f) The change shall not qualify for a permit shield under the provisions of TAPCR part 1200-03-09-.02(11)(e)6.
 - (g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4(ii)

- C2. Section 502(b)(10) changes.**
- (a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or TAPCR Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7-day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR part 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.
 - (b) The written notification must be signed by a facility Title V responsible official and include the following:
 - 1. a brief description of the change within the permitted facility;
 - 2. the date on which the change will occur;
 - 3. a declaration and quantification of any change in emissions;
 - 4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and
 - 5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.
 - (c) The permit shield provisions of TAPCR part 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4(i)

- C3. Administrative amendment.**
- (a) Administrative permit amendments to this permit shall be in accordance with TAPCR part 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.
 - (b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR part 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), TAPCR subparagraph 1200-03-09-.02(11)(f) and TAPCR subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
 - (c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

- C4. Minor permit modifications.**
- (a) The permittee may submit an application for a minor permit modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(ii).
 - (b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
 - (c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

- (d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.

(a) The permittee may submit an application for a significant modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(iv).

(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR Rule 1200-03-09-.01 shall be governed by the following:

(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.

(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR part 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR subpart 1200-03-09-.02(11)(f)5(iv).

(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR subpart 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d)1(i)(V)

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1. Visible emissions.

(a) With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of 20 percent (6-minute average) except for one six minute period per one hour of not more than 40 percent opacity. Sources constructed or modified after July 7, 1992, shall utilize 6-minute averaging.

(b) Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR Chapter 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2. General provisions and applicability for non-process gaseous emissions. Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. Non-process emission standards. The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR Chapter 1200-03-06.

D4. General provisions and applicability for process gaseous emissions. Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. Particulate emissions from process emission sources. The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR part 1200-03-07.

D6. Sulfur dioxide emission standards. The permittee shall not cause, suffer, allow, or permit sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR Chapter 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. Fugitive Dust.

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR Chapter 1200-03-20.

TAPCR 1200-03-08

D8. Open burning. The permittee shall comply with the TAPCR Chapter 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. Asbestos. Where applicable, the permittee shall comply with the requirements of 40 CFR Part 61 when conducting any renovation or demolition activities at the facility.

TAPCR 0400-30-38-.01(2) and 40 CFR, Part 61

D10. Annual certification of compliance. The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are insignificant emission units or activities. By annual certification of compliance with the conditions in this Section the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR subpart 1200-03-09-.02(11)(e)1(iii) and part 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR subpart 1200-03-09-.02(11)(e)3(i). The permittee shall submit compliance certification for these conditions annually.

D11. Emission Standards for Hazardous Air Pollutants. The permittee shall comply with all applicable requirements of TAPCR Chapter 0400-30-38 for all emission sources subject to a requirement contained therein.

D12. Standards of Performance for New Stationary Sources. The permittee shall comply with all applicable requirements of TAPCR chapters 0400-30-39 and 1200-03-16 for all emission sources subject to a requirement contained therein.

D13. Gasoline Dispensing Facilities. The permittee shall comply with all applicable requirements of TAPCR Rule 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

D14. Internal Combustion Engines.

(a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Rule 0400-30-38-.01.

(b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

(c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

TAPCR 0400-30-38 and 39

D15. Duty to Maintain/Repair.

The permittee shall maintain and repair each emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

SECTION E**SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS****60-0095****Facility Description:****Natural Gas Compressor and Transmission Station Operation:**

Natural gas transported through the regional natural gas pipeline using seven Clark compressor engines (ID 401-407), two Solar Mars stationary gas compressor turbines (ID 412 and 413), two Waukesha and Ford emergency generator engines (ID G3 and G4), three Babcock & Wilcox tank heaters (ID H1-H3), and associated emission source units that qualify as insignificant activities under Tennessee Air Pollution Control Regulations (TAPCR).

The Kohler gasoline-fired emergency generator engine (ID G5) and Ford emergency fire water pump (ID P2) are decommissioned and no longer in operation at the facility.

Conditions E1, E2, and E3 apply to the entire facility unless otherwise specified.

E1. Fee payment.**FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 60-0095**

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	32.83	AEAR	Fee emissions include PM ₁₀ .
SO₂	1.20	AEAR	Includes all fee emissions.
VOC	66.79	AEAR	Includes all fee emissions.
NO_x	1864.17	AEAR	Includes all fee emissions.
Facility-Wide Total HAP Limit		AEAR	Fee emissions are included in VOC.
Facility-Wide Individual HAP Limit		AEAR	Fee emissions are included in VOC.
HAZARDOUS AIR POLLUTANTS (HAPs) NOT INCLUDED ABOVE*			
VOC Family Group		AEAR	Fee emissions are included in VOC above.
		AEAR	
		AEAR	
MISCELLANEOUS POLLUTANTS NOT LISTED ABOVE**			
EACH MISC POLLUTANT NOT LISTED ABOVE			
		AEAR	
		AEAR	
		AEAR	
		AEAR	

NOTES

AAP The **Annual Accounting Period (AAP)** is a 12 consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The AAP at the time of permit renewal issuance **began July 1, 2026, and ends June 30, 2027.** The next AAP begins **July 1, 2027, and ends June 30, 2028,** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary. If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. **Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as Attachment 7 to this permit and available on the Division of Air Pollution Control's website.**

N/A N/A indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an Actual Emissions Analysis is **Required** to determine the actual emissions of:

- (1) **each regulated pollutant** (Particulate matter [PM], SO₂, VOC, NO_x, and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
- (2) the **"HAP Not Included Above" Category (non-VOC and non-PM HAP not included in a facility-wide limit),** and
- (3) the **Miscellaneous Category**

under consideration during the **Annual Accounting Period.**

* **Hazardous Air Pollutants Not Included Above:** This category is made-up of hazardous air pollutants that are not included in the VOC or PM category, such as HCl and HF, and are not included in a facility-wide HAP emission limitation. **For fee computation,** each individual hazardous air pollutant is subject to the 4,000-ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

** **Miscellaneous Pollutants Not Listed Above:** This category is for pollutants that are not included in one of the other categories but for which an emission limitation has been established in this permit (including NSPS pollutants). **For fee computation,** each pollutant in this category is subject to the 4,000-ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

- The permittee shall:**
- (1) Pay Title V **annual fees** (including the emissions fee, base fee, significant modification fee, & minor modification fee), on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(a). Fees may be paid on an **actual, allowable, or mixed** emissions basis, and on either a **state fiscal year** or a **calendar year**, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).
 - (2) Sources paying annual fees on an allowable emissions basis: pay annual fees for each AAP no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d). TAPCR 1200-03-26-.02(9)(a)2(i)
 - (3) Sources paying annual fees on a calendar year basis and an actual or mixed emissions basis: pay annual allowable based emission fees for each AAP no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d), except as allowed by TAPCR 1200-03-26-.02(9)(g)3. TAPCR 1200-03-26-.02(9)(a)2(ii)

- (4) Sources paying annual fees on a fiscal year basis and an actual or mixed emissions basis: for each AAP, pay an estimated 65% of the fee due no later than April 1 of the current fiscal year. The remainder of the fee for each annual accounting period is due no later than August 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d), except as allowed by TAPCR 1200-03-26-.02(9)(g)3.
TAPCR 1200-03-26-.02(9)(a)2(iii)
- (5) Sources paying annual fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
- (a) the completed **Fee Emissions Summary Table**,
 - (b) each **actual emissions analysis** required, and
 - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the Fee Year basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.
TAPCR 1200-03-26-.02(9)(g)2
- (6) Sources paying annual fees on a Fee Choice of a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
- (a) the completed **Fee Emissions Summary Table**,
 - (b) each **actual emissions analysis** required, and
 - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the Fee Year basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analysis**.
For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).
TAPCR 1200-03-26-.02(9)(g)2
- (7) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full or earlier.
TAPCR 1200-03-26-.02(9)(g)2
- (8) Include with each required AEAR report the following statement signed by the Responsible Official: *"I have reviewed this document in its entirety, and to the best of my knowledge, based on information and belief formed after reasonable inquiry, the statements and information contained in this document are true, accurate, and complete."*
TAPCR 1200-03-09-.02(11)(d)4

The annual fee due dates are specified in TAPCR 1200-03-26-.02(9)(a) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in **Condition A8(d)** of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to the Technical Secretary at the following address:

Payment of Fee to:

Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
Davy Crockett Tower, 6th Floor
500 James Robertson Parkway
Nashville, Tennessee 37243

Actual Emissions Analyses to:

A “Title V Emissions Summary Form” and the AEAR must be submitted electronically as directed by the Division. Additional information can be found at <https://www.tn.gov/environment/air/inventory.html>

TAPCR 1200-03-26-.02(3), (8), and (9), and TAPCR 1200-03-09-.02(11)(e)1(vii)

E2. Reporting requirements.

- (a) **Semiannual reports.** Semiannual reports shall cover the six-month periods from **July 1, 2026**, to **December 31, 2026**, and **January 1, 2027**, to **June 30, 2027**, and shall be submitted within 60 days after the end of each six-month period. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the first report. The first semiannual report following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Report Period begins	Report period ends
573964 (existing)	July 1, 2026	Date before issuance of permit number 582189
582189 (renewal)	Date of issuance of permit number 582189	TBD

The semiannual reports shall include:

- (1) Any monitoring and recordkeeping required by **Conditions E6-11, E6-12, and E6-13** of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.
- (2) The visible emission evaluation readings from **Condition E3-1** of this permit if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.
- (3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**. The record of deviations/excursions shall include, at a minimum, the time the deviation/excursion was discovered, the corrective action taken, and the time that the deviation/excursion was rectified.

These reports must be certified by a responsible official consistent with Condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

- (b) **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D, and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

- (1) The identification of each term or condition of the permit that is the basis of the certification;
- (2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

- (3) The status of compliance with each term or condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in **E2(b)2** above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and
- (4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Annual compliance certifications shall cover the 12-month period from **July 1, 2026**, to **June 30, 2027**, and shall be submitted within 60 days after the end of each 12-month period. The first annual compliance certification following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Report period begins	Report period ends
573964 (existing)	July 1, 2026	Date before issuance of permit number 582189
582189 (renewal)	Date of issuance of permit number 582189	June 30, 2027

These certifications shall be submitted to:

TN APCD and EPA

Division of Air Pollution Control
Columbia Environmental Field Office
1421 Hampshire Pike
Columbia, TN 38401

and Air Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, Georgia 30303

or

APC.ColuEFO@tn.gov

or

Through the EPA CDX
(<https://cdx.epa.gov/>)

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667, and TAPCR 1200-03-09-.02(11)(e)3.(v)

- (c) **NESHAP reporting requirements.** The permittee must submit the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters reports as required by **Condition E8-8** of this permit. The NESHAP report shall cover the five-year period from **January 1, 2026**, to **December 31, 2030**, and shall be submitted within 60 days after the end of each five-year period. The first NESHAP report following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Report period begins	Report period ends
573964 (existing)	January 1, 2026	Date before issuance of permit number 582189
582189 (renewal)	Date of issuance of permit number 582189	December 31, 2030

These reports shall be submitted to:

TN APCD and EPA

Division of Air Pollution Control
Davy Crockett Tower, 7th Floor
500 James Robertson Parkway
Nashville, TN 37243

and Air Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, Georgia 30303

or

Air.Pollution.Control@tn.gov

or

Through the EPA CDX
(<https://cdx.epa.gov/>)

These reports must be certified by a responsible official consistent with Condition B4 of this permit.

TAPCR 1200-03-09-.02(11)(e)1(iii) and 1200-03-09-.03(8)

- (d) **Retention of records** All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

E3. GENERAL PERMIT REQUIREMENTS

Conditions E3-1 through E3-16 apply to all sources in this permit, unless otherwise specified.

E3-1. Identification of Responsible Official, Technical Contact, and Billing Contact.

- (a) The application that was utilized in the preparation of this permit is dated February 27, 2024, and signed by Stephen Miller, Manager, US Gas Operations South, as the Responsible Official of the permitted facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in TAPCR 1200-03-09-.02(11)(b)21, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within 30 days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.
- (b) The application that was utilized in the preparation of this permit is dated February 27, 2024, and identifies Cynthia Hicks, Environmental Analyst, as the Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or the Principal Technical operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.
- (c) The application that was utilized in the preparation of this permit is dated February 27, 2024, and identifies Cynthia Hicks, Environmental Analyst, as the Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

TAPCR 1200-03-09-.03(8)

E3-2. Application and Agreement Letters.

This facility shall operate in accordance with the terms of this permit, the information submitted in the approved permit application(s) referenced in this permit, and any documented agreements made with the Technical Secretary.

TAPCR 1200-03-09-.01(1)(d), 1200-03-09-.02(6), and 1200-03-09-.03(8)

E3-3. Submittals.

Unless otherwise specified within this permit, the permittee shall submit, preferably via email and in Adobe Portable Document format (PDF), all applicable plans, checklists, certifications, notifications, test protocols, reports, and applications to the attention of the following Division Programs at the email addresses indicated in the table below:

Permitting Program	Compliance Validation Program	Field Services Program
• Notifications • Startup certifications • Applications • NSPS reports • MACT/GACT/NESHAP reports • Emission statements	• Test protocols • Emission test reports • Visible emission evaluation reports	• Semiannual reports • Annual compliance certifications/status reports
State of Tennessee Department of Environment and Conservation Division of Air Pollution Control Davy Crockett Tower, 7 th Floor 500 James Robertson Parkway Nashville, TN 37243 Air.Pollution.Control@tn.gov		State of Tennessee Dept. of Environment and Conservation Columbia Environmental Field Office Division of Air Pollution Control 1421 Hampshire Pike Columbia, TN 38401 APC.ColuEFO@tn.gov

The permittee shall submit the information identified above as requested in this permit. In lieu of submitting this information to the email addresses above, the permittee may submit the information to the attention of the respective Division Programs at the mailing addresses listed above.

TAPCR 1200-03-09-.03(8)

E3-4. General Recordkeeping Requirements.

All recordkeeping requirements for all data required to be recorded shall follow the following schedules:

For Daily Recordkeeping	For Weekly Recordkeeping	For Monthly Recordkeeping
No later than seven days from the end of the day for which the data is required.	No later than seven days from the end of the week for which the data is required.	No later than 30 days from the end of the month for which the data is required.

TAPCR 1200-03-09-.02(11)(e)1(iii) and 1200-03-10-.04(2)(b)

Compliance Method: The information contained in logs, records, and submittals required by this permit shall be kept at the facility's address, unless otherwise noted, and provided to the Technical Secretary or a Division representative upon request. Computer-generated logs are acceptable. Compliance is assured by retaining the logs, records, and submittals specified in this permit for a period of not less than five years at the facility's address. Logs and records are not required to be submitted semiannually unless specified in **Condition E2**.

- E3-5.** Unless otherwise specified, visible emissions from any stack at this facility shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.01(1) and 1200-03-05-.03(6)

Compliance method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) found in Attachment 1. Reports and certifications shall be submitted in accordance with **Condition E2** of this permit.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E3-6. Notification of Changes.

The permittee shall notify the Technical Secretary for any of the following changes to a permitted air contaminant source which would not be a modification requiring a new construction permit:

- (a) change in air pollution control equipment that does not result in an increase or otherwise meet the definition of a modification
- (b) change in stack height or diameter
- (c) change in exit velocity of more than 25% or exit temperature of more than 15% based on absolute temperature.

The permittee must submit the Notification provided in Attachment 8 of this permit 30 days before the change is commenced.

TAPCR 1200-03-09-.02(7)

E3-7. NSPS/NESHAP/MACT/GACT Standards.

The following source(s) are subject to and shall comply with all applicable requirements of each NSPS/NESHAP/MACT/GACT standard as indicated in the table below, including the General Provisions identified in Attachments 4 and 5. The applicable requirements of each standard are incorporated into this permit pursuant to TAPCR 1200-03-09-.03(8), 0400-30-38-.01, and 0400-30-39-.01.

Emission Source Number (ESN)	NESHAP/MACT/GACT	NSPS
02	Not Applicable	40 CFR 60, Subpart GG
03	Not Applicable	Not Applicable
04	40 CFR 63, Subpart ZZZZ	Not Applicable
05	Not Applicable	40 CFR 60, Subpart GG
06	40 CFR 63, Subpart DDDDD	Not Applicable

TAPCR 1200-03-09-.03(8), 0400-30-38-.01, and 0400-30-39-.01

Compliance Method: Compliance methods are provided in the conditions in **Section E** of this permit.

- E3-8.** The permittee shall comply with all applicable federal and state regulations concerning the operation of the sources in this permit. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

E3-9. Insignificant activities.

Insignificant activities as stated by the permittee in the Title V permit application per TAPCR 1200-03-09-.04(5) are listed below. Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC 2 application form along with a truth, accuracy, and completeness statement signed by a responsible official. The permit may be updated to include additional insignificant sources by means of an administrative amendment, if necessary.

Emission Source Description	Insignificant Activity Identification	Insignificant Activities Under TAPCR
5,000 gallon Lube Oil Tank	A0001	1200-03-09-.04(5)(a)4(i)
5,000 gallon Lube Oil Tank	A0002	1200-03-09-.04(5)(a)4(i)
5,000 gallon Glycol Tank	A0003	1200-03-09-.04(5)(a)4(i)
1,144 gallon Engine Oil Recovery Tank	A0004	1200-03-09-.04(5)(a)4(i)
700 gallon Engine Coolant Recovery Tank	A0005	1200-03-09-.04(5)(a)4(i)
8,800 gallon Oil/Water Mixture Tank	A0008	1200-03-09-.04(5)(a)4(i)
8,800 gallon Used Oil Tank	A0009	1200-03-09-.04(5)(a)4(i)
8,800 gallon Wastewater Tank	A0010	1200-03-09-.04(5)(a)4(i)
8,800 gal Pipeline Liquids Tank	A0014	1200-03-09-.04(5)(a)4(i)
Fugitive Emissions from Multiple Emission Units	FUG	1200-03-09-.04(5)(a)4(i)
Heaters, total < 1 MMBtu/hr	H001	1200-03-09-.04(5)(a)4(i)
Space Heaters, total < 1 MMBtu/hr	SH001	1200-03-09-.04(5)(f)46

TAPCR 1200-03-09-.04(5) and the Title V permit application dated February 27, 2024

E3-10. Accidental release plan. (Reserved)**E3-11. CAM Plan.**

This facility is not currently subject to regulations under 40 CFR 64 (Compliance Assurance Monitoring).

E3-12. Routine Maintenance Requirements.

The permittee shall maintain and repair each emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as specified in **Condition D15** of this permit.

TAPCR 1200-03-09-.03(8)

Compliance Method: Records of all repair and maintenance activities required above shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. The date each maintenance and repair activity began shall be entered in the log no later than seven days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than seven days after activity completion.

E3-13. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by TAPCR 1200-03-20.

TAPCR 1200-03-09-.03(8)

E3-14. Carbon Monoxide (CO) emitted from the turbines (412 and 413) combined total shall not exceed **220.00 tons per any calendar year.**

TAPCR 1200-03-06-.03(2) and the Title V permit application dated February 27, 2024

Compliance Method: Compliance with this emission standard is based on manufacturer-specified Carbon Monoxide (CO) exhaust concentration data based on vendor data for modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, that was submitted with the Title V permit application dated February 27, 2024. The permittee shall record the duration of any episode of turbine operation in low-load or rapid transience mode and shall utilize the appropriate manufacturer-specified exhaust concentration when estimating CO emissions during such episode. The total CO emissions combined from the stationary gas turbines (412 and 413) shall be determined each calendar year. Records of these determinations shall be made available to the Technical Secretary or Division representative upon request. If deemed necessary, actual emissions measurement may be prescribed by the Technical Secretary.

E3-15. When paying fees on an actual emissions basis, the permittee shall calculate actual Particulate Matter (PM), Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), and Nitrogen Oxides (NO_x) emissions from the stationary gas turbines and reciprocating compressor engines for each fiscal year using engine operating hours, actual horsepower, natural gas usage, as applicable, along with vendor data guarantees, a current, valid purchase contract, tariff sheet or transportation contract for the natural gas, specifying that the maximum total sulfur content of the natural gas does not exceed 0.027% by weight or acceptable representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 0.027% by weight, EPA AP-42 Emission Factors for Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Supplement to the 5th Ed., 7/00, and Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Supplement to the 5th Ed., 4/00. The permittee shall maintain a log specifying the specific emission factors and basis for calculating emissions required in the table in Attachment 3, or in an alternative format, which provides the same information. If more recent emission factors or test data is used, the basis for such factors shall be provided. The log shall be reported and retained in accordance with **Conditions E1 and E3-4.**

TAPCR 1200-03-26-.02(9) and the Title V permit application dated February 27, 2024

E3-16. One or more of the engines/turbines or engine/turbine components may be removed and replaced with new, repaired or refurbished equivalent capacity engines/turbines of in-kind components, in order to maintain gas delivery capacity.

TAPCR 1200-03-09-.03(8)

Compliance method: The permittee shall demonstrate compliance by recordkeeping as required must include a record of the date of the change and a description of the removal/replacement equipment. If the replacement turbine(s) are retained on a permanent basis, the permittee shall notify the Division in writing and submit an application to the Division if the unit is subject to any applicable federal requirements including NSPS, NESHAP, and etc.

60-0095-02 Source Description		Natural Gas Compressor and Transmission Station Equipment:
		14,070 hp Solar Mars 100-T15000S Stationary Gas Compressor Turbine (413)
		NSPS 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines

Conditions E4-1 through E4-7 apply to Source 60-0095-02 unless otherwise specified.

- E4-1.** The stated heat input rate, based on the Higher Heating Value (HHV), and the power output capacity of this stationary gas turbine (413), are listed below. Due to variations in ambient conditions, the turbine can operate up to 15% above the NEMA rated capacity. Should the permittee need to modify the stationary gas turbine (413) in a manner that increases the stated heat input rate or power output capacity of the stationary gas turbine (413), a construction permit or Title V modification shall be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

Unit #	Model	Stated Heat Input (HHV) (MMBtu/hr)	Stated Power Output (horsepower)
413	Solar Mars 100-T15000S	136.50	17,578

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance Method: The permittee shall maintain documentation to demonstrate the stated heat input rate and power output capacity of the stationary gas turbine (413). Documentation may include, but is not limited to, based on vendor data for modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- E4-2.** Only natural gas with a sulfur content of 0.027% by weight or less shall be used as a fuel source for this stationary gas turbine engine (413).

Compliance Method: The permittee shall demonstrate the sulfur content of the natural gas used for this stationary gas turbine (413) by representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 8.60 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR part 75 is required. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

40 CFR §60.334(h)(3)(i) and (ii), and 40 CFR 75, Appendix D, 2.3.2.4(a)(2) and (e), and TAPCR 1200-03-09-.03(8)

- E4-3.** This permit will become invalid if water or steam injection is being used to control NO_x emissions from this stationary gas turbine (413). The owner or operator of the stationary gas turbine (413) shall apply for a permit modification before adopting such control approach.

TAPCR 1200-03-09-.03(8)

- E4-4.** Sulfur Dioxide (SO₂) emitted from this stationary gas turbine (413) shall not exceed **3.0** pounds per hour, on a daily average basis, or as an equivalent, the sulfur content of the natural gas shall not exceed 0.027% by weight.

TAPCR 1200-03-14-.01(3) and the agreement letter dated July 23, 2019, from the permittee (Attachment 6)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E4-1 and E4-2.**

- E4-5.** Nitrogen Oxides (NO_x) emitted from this stationary gas turbine (413) shall not exceed **25.40** pounds per hour, on a daily average basis. It is understood and agreed by both the Technical Secretary and the permittee that the equivalent of this emission limit in terms of the NO_x emission concentration is more stringent than the NO_x emission standard as determined in 40 CFR 60, Subpart GG. Consistent with the provisions of the memorandum of August 14, 1987, by John B. Rasnic of EPA, the monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel source fired in the stationary gas turbine (413). (Attachment 3)

40 CFR §60.332(c) and TAPCR 1200-03-06-.03(2) and 1200-03-09-.03(8)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E4-1 and E4-2** and the manufacturer-specified NO_x exhaust concentration data based on vendor data for modes of operation including, but not limited to, low load/rapid transience operating modes, that was submitted with the Title V permit application dated March 16, 2006, with updates dated October 5, 2006, and the stack test performed on November 30, 2000, by URS Corporation at this facility. The average NO_x emission rate during the high load testing period was **9.50** pounds per hour.

- E4-6.** Particulate Matter (PM) emitted from this stationary gas turbine (413) shall not exceed **2.7** pounds per hour, on a daily average basis.

TAPCR 1200-03-06-.01(7) and the agreement letter dated July 23, 2019, from the permittee (Attachment 6)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E4-1 and E4-2** and the EPA AP-42 Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Table 3.1-2a, Supplement to the 5th Ed., 4/00. (Attachment 2)

- E4-7.** Volatile Organic Compounds (VOC) emitted from this stationary gas turbine (413) shall not exceed **16.56** tons during any period of 12-consecutive months.

TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E4-1 and E4-2** and the manufacturer-specified VOC exhaust concentration data based on vendor data for modes of operation including, but not limited to, including low load/rapid transience operating modes, that was submitted with the Title V permit application dated March 16, 2006, with updates dated October 5, 2006.

60-0095-03	Source Description	Natural Gas Transmission Compressor Equipment: Seven 2,000 hp Clark TLA-6 Two-Stroke Lean-Burn Reciprocating Compressor Engines (401-407)
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Conditions E5-1 through E5-7 apply to Source 60-0095-03 unless otherwise specified.

- E5-1.** The stated heat input rates, Higher Heating Value (HHV), and power output capacities of the reciprocating compressor engines (401-407) are listed below. Due to variations in ambient conditions, the reciprocating engines can operate up to 5% above their NEMA rated capacities. Should the permittee need to modify the reciprocating compressor engines (401-407) in a manner that increases the stated heat input rates or power output capacities of the reciprocating compressor engines (401-407), a construction permit or Title V modification shall be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

Unit #	Model	Stated Heat Input (HHV) (MMBtu/hr)	Stated Power Output (horsepower)
401	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
402	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
403	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
404	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
405	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
406	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000
407	Clark TLA-6;2-Stroke Lean-Burn	16.80	2,000

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance method: The permittee shall maintain documentation to demonstrate the stated heat input rates and power output capacities of the reciprocating compressor engines (401-407). Documentation may include, but is not limited to, based on vendor data are modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- E5-2.** The source's existing, (built prior to June 12, 2006) non-emergency, non-black start 2-stroke lean burn stationary RICE greater than 500 horsepower (401-407) are not subject to 40 CFR, Part 63, Subpart ZZZZ, NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES, including any and/or all applicable emission limitations, notifications, compliance options, records, reports, etc. as referenced in the regulations pursuant to 40 CFR §63.6590(b)(3)(i).

40 CFR §63.6590(b)(3)(i) and TAPCR 1200-03-09-.03(8)

- E5-3.** Particulate Matter (PM) emitted from each of the reciprocating compressor engines (401-407) shall not exceed **0.52** pounds per million British Thermal Units (lb/MMBtu) of heat input.

TAPCR 1200-03-06-.02(1)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E5-1 and E5-5** and EPA AP-42 Emission Factors for Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-1, Supplement to the 5th Ed., dated 7/00.

- E5-4.** Sulfur Dioxide (SO₂) emitted from each reciprocating compressor engine (401-407) shall not exceed **0.01** pounds per hour, on daily average basis.

TAPCR 1200-03-14-.02(1)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E5-1 and E5-5** and EPA AP-42 Emission Factors for Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-1, Supplement to the 5th Ed., dated 7/00.

- E5-5.** Only natural gas shall be used as a fuel source for the reciprocating compressor engines (401-407).

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance Method: The permittee shall certify in the annual certification of compliance that only natural gas was used as a fuel source for the reciprocating compressor engines (401-407).

- E5-6.** When paying fees on an actual emissions basis, Volatile Organic Compounds (VOC) emissions are estimated to be no more than **8.85** tons per year for each reciprocating compressor engine (401-407).

TAPCR 1200-03-26-.02(2)(d)3 and the Title V permit application dated February 27, 2024

- E5-7.** When paying fees on an actual emissions basis, Nitrogen Oxides (NO_x) emissions are estimated to be no more than **239.28** tons per year per for each reciprocating compressor engine (401-407).

TAPCR 1200-03-26-.02(2)(d)3 and the Title V permit application dated February 27, 2024

60-0095-04 Source Description	720 hp Waukesha L5790 Four-Stroke Rich-Burn Emergency Generator Engine (G3). 46 hp Ford LSG-4231-6007-B Four-Stroke Rich-Burn Emergency Generator Engine (G4) National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (NESHAP), 40 CFR 63, Subpart ZZZZ The Kohler gasoline-fired emergency generator engine (ID G5) and Ford emergency fire water pump (ID P2) are decommissioned and no longer in operation at the facility
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Conditions E6-1 through E6-15 apply to Source 60-0095-04 unless otherwise specified.

- E6-1.** The stated input rates, Higher Heating Value (HHV), and power output capacities of the emergency generator engines (G3 and G4), are listed below. Due to variations in ambient conditions, the reciprocating engines can operate up to 5% above their NEMA rated capacities. Should the permittee need to modify the emergency generator engines (G3 and G4) in a manner that increases the stated input rates or power output capacities of the emergency generator engines (G3 and G4), a construction permit or Title V modification shall be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

Unit #	Model	Stated Heat Input (HHV) (MMBtu/hr)	Stated Power Output (horsepower)
G3	Waukesha L5790; 4-Stroke Rich-Burn	7.60	720
G4	Ford LSG-4231-6007-B; 4-Stroke Rich-Burn	0.60	46

TAPCR 1200-03-09-.03(8) and the Title V permit application dated February 27, 2024

Compliance method: The permittee shall maintain documentation to demonstrate the stated heat input rates and power output capacities of the emergency generator engines (G3 and G4). Documentation may include, but is not limited to, based on vendor data are modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- E6-2.** Particulate Matter (PM) emitted from each of the emergency generator engines (G3 and G4) shall not exceed **0.60** pounds per million British Thermal Units (lb/MMBtu) of heat input.

TAPCR 1200-03-06-.02(1) for the emergency generator engine (G3) and 1200-03-06-.02(2)(a) for the emergency generator engine (G4)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E6-1 and E6-4** and EPA AP-42 Emission Factors for Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-3, Supplement to the 5th Ed., dated 7/00.

- E6-3.** Sulfur Dioxide (SO₂) emitted from the emergency generator engines (G3 and G4) shall not exceed the following limits:

- (a) **38.16** pounds per hour (lb/hr), on a daily average basis for the emergency generator engine (G3).
- (b) **2.71** lb/hr, on a daily average basis for the emergency generator engine (G4).

TAPCR 1200-03-14-.02(2)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E6-1 and E6-4** and EPA AP-42 Emission Factors for Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-3, Supplement to the 5th Ed., dated 7/00.

- E6-4.** Natural gas shall be the only fuel source used for the emergency generator engines (G3 and G4).

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall certify in the annual certification of compliance that only natural gas was used as a fuel source for the emergency generator engines (G3 and G4).

- E6-5.** The emergency generator engines (G3 and G4) are subject to regulations under 40 CFR, 63, Subpart ZZZZ, **NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES**. The emergency engine (G3) (built prior to June 12, 2006) is only subject to 40 CFR §63.6640(f) and 63.6590(b)(3)(iii).

Beginning no later than October 19, 2013, the following management practice requirements apply to the emergency generator engine (G4):

- (a) Change oil and filter every 500 hours of operation or annually, whichever comes first; however, the permittee has the option to utilize an oil analysis program as described in §63.6625(j) in order to extend the specified oil change requirement;
- (b) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and replace as necessary;
- (c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. The permittee can petition the Administrator pursuant to the requirements of 40 CFR §63.6(g) for alternative work practices.

If either of the emergency engines are operating during an emergency and it is not possible to shut down an engine in order to perform the management practice requirements as described in **E6-5(a)** above, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. The permittee must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

40 CFR §63.6602, Table 2c of 40 CFR 63, Subpart ZZZZ, and TAPCR 1200-03-09-.03(8)

- E6-6.** The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions:

40 CFR §63.6625(e) and TAPCR 1200-03-09-.03(8)

- E6-7.** The permittee shall install a non-resettable hour meter for each emergency generator engine (G3 and G4) if one is not already installed at each emergency generator engine.

40 CFR §63.6625(f) and TAPCR 1200-03-09-.03(8)

Compliance Method: Non-resettable hour meters for each emergency generator engine (G3 and G4) were installed as required in accordance with the Title V compliance annual inspection conducted on November 13, 2014.

- E6-8.** The permittee for the emergency generator engine (G4) must minimize an engine's time spent at idle during startup and minimize an engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this 40 CFR Part 63, Subpart ZZZZ apply.

40 CFR §63.6625(h) and TAPCR 1200-03-09-.03(8)

- E6-9.** The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in **Condition E6-5**. The oil analysis must be performed at the same frequency specified for changing the oil in **Condition E6-5**. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later.

The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for that engine.

40 CFR §63.6625(i) and TAPCR 1200-03-09-.03(8)

E6-10. Any operation of either engine other than for emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in (a), (b), and (c) below, is prohibited. If the permittee does not operate the engines according to the requirements in (a), (b), and (c) below, the engines will not be considered emergency engines, and will need to meet all 40 CFR Part 63, Subpart ZZZZ requirements for non-emergency engines.

- (a) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (b) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition the Technical Secretary for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
- (c) The permittee may operate the emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent.

The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition, as long as the power provided by the financial arrangement is limited to emergency power.

40 CFR §63.6640(f)(1),(2), &(3) and TAPCR 1200-03-09-.03(8)

E6-11. The permittee shall demonstrate compliance by recordkeeping of hours of operation of the emergency generator engines (G3 and G4) that are recorded through the non-resettable hour meter. The permittee 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. If the emergency engine is used for demand response operation, the permittee must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. These logs must be maintained at the facility and kept available for inspection by the Technical Secretary or Division representative.

40 CFR §63.6655(f) and TAPCR 1200-03-09-.03(8)

E6-12. The permittee shall demonstrate compliance by recordkeeping of the following listed below:

- (a) Records required in Table 6 of this Subpart to show continuous compliance with each emission or operating limitation that applies;
- (b) Records of the maintenance conducted on the stationary RICE in order to demonstrate that they have operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan.

40 CFR §63.6655(d) & (e) and TAPCR 1200-03-09-.03(8)

E6-13. The permittee shall demonstrate compliance by recordkeeping of the following listed below:

- (a) All records in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1).
- (b) Each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

- (c) Each record readily accessible in hard copy or electronic form for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1).

40 CFR §63.6660(a) (b) & (c) and TAPCR 1200-03-09-.03(8)

- E6-14.** When paying fees on an actual emissions basis, Volatile Organic Compounds (VOC) emissions from the emergency generator engines (G3 and G4) are estimated to be no more than the combined total of **0.07** tons during any period of 12-consecutive months.

TAPCR 1200-03-26-.02(2)(d)3 and the Title V permit application dated February 27, 2024

- E6-15.** When paying fees on an actual emissions basis, Nitrogen Oxides (NO_x) from emergency generator engines (G3 and G4) are estimated to be no more than the combined total of **4.52** tons during any period of 12-consecutive months.

TAPCR 1200-03-26-.02(2)(d)3 and the Title V permit application dated February 27, 2024

60-0095-05 Source Description	Natural Gas Compressor and Transmission Equipment: 14,070 hp Solar Mars 100-T15000S Stationary Gas Compressor Turbine (412). NSPS 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines.
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Conditions E7-1 through E7-7 apply to Source 60-0095-05 unless otherwise specified.

- E7-1.** The stated heat input rate, Higher Heating Value (HHV), and power output capacity of this stationary gas turbine (412), are listed below. Due to variations in ambient conditions, the turbine engine can operate up to 15% above the NEMA rated capacity. Should the permittee need to modify the stationary gas turbine (412) in a manner that increases the stated heat input rate or power output capacity of the stationary gas turbine (412), a construction permit or Title V modification shall be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

Unit #	Model	Stated Heat Input (HHV) (MMBtu/hr)	Stated Power Output (horsepower)
413	Solar Mars 100-T15000S	136.50	17,578

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance Method: The permittee shall maintain documentation to demonstrate the stated heat input rate and power output capacity of the stationary gas turbine (412). Documentation may include, but is not limited to, based on vendor data for modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- E7-2.** Only natural gas with a sulfur content of 0.027% by weight or less shall be used as a fuel source for this stationary gas turbine engine (412).

Compliance Method: The permittee shall demonstrate the sulfur content of the natural gas used for this stationary gas turbine (412) by representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 8.60 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to 40 CFR part 75 is required. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

40 CFR §60.334(h)(3)(i) and (ii), and 40 CFR 75, Appendix D, 2.3.2.4(a)(2) and (e), and TAPCR 1200-03-09-.03(8)

- E7-3.** This permit will become invalid if water or steam injection is being used to control NO_x emissions from the this stationary gas turbine (412). The owner or operator of the stationary gas turbine (412) shall apply for a permit modification before adopting such control approach.

TAPCR 1200-03-09-.03(8)

- E7-4.** Sulfur Dioxide (SO₂) emitted from the stationary gas turbine (412) shall not exceed **3.0** pounds per hour, on a daily average basis, or as an equivalent, the sulfur content of the natural gas shall exceed 0.027% by weight.

TAPCR 1200-03-14-.01(3) and the agreement letter dated July 23, 2019, from the permittee (Attachment 6)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E7-1 and E7-2** and EPA AP-42 Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Table 3.1-2a, Supplement to the 5th Ed., 4/00.

- E7-5.** Nitrogen Oxides (NO_x) emitted from the stationary gas turbine (412) shall not exceed **25.40** pounds per hour. It is understood and agreed by both the Technical Secretary and the permittee that the equivalent of this emission limit in terms of the NO_x emission concentration is more stringent than the emission standard as determined as determined in 40 CFR 60, Subpart GG. Consistent with the provisions of the memorandum of August 14, 1987, by John B. Rasnic of EPA, the monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbines found in Attachment 3.

40 CFR §60.332(c) and TAPCR 1200-03-06-.03(2) and 1200-03-09-.03(8)

Compliance Method: Compliance with this emission limitation shall be assured by complying with **Conditions E7-1 and E7-2** and the manufacturer-specified NO_x exhaust concentration data based on vendor data for modes of operation including, but not limited to, low load/rapid transience operating modes, that was submitted with the Title V renewal application dated February 27, 2024, and the stack test performed on February 2, 1999, by Radian International at this facility. The average NO_x emission rate during the high load testing period was **16.60** pounds per hour.

- E7-6.** Particulate Matter (PM) emitted from the stationary gas turbine (412) shall not exceed **2.7** pounds per hour, on a daily average basis.

TAPCR 1200-03-06-.01(7) and the agreement letter dated July 23, 2019, from the permittee (Attachment 6)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Conditions E7-1 and E7-2** and EPA AP-42 Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Table 3.1-2a, Supplement to the 5th Ed., 4/00.

- E7-7.** Volatile Organic Compounds (VOC) emitted from the stationary gas turbine (412) shall not exceed **16.56** tons during any period of 12-consecutive months.

TAPCR 1200-03-06-.03(2)

Compliance Method: Compliance with this emission limitation shall be assured by compliance with **Condition E7-2** and the manufacturer-specified VOC exhaust concentration data based on vendor data for modes of operation including, but not limited to, including low load/rapid transience operating modes, that was submitted with the Title V permit application dated February 27, 2024.

60-0095-06 Source Description

Natural Gas Tank Heaters Equipment: Three Natural Gas-Fired Tank Heaters manufactured by Babcock & Wilcox and has a maximum heat input of 0.125 MMBtu/hr (H1-H3). Process Heaters are subject to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (NESHAP), 40 CFR 63, Subpart DDDDD.

Conditions E8-1 through E8-12 apply to Source 60-0095-06 unless otherwise specified.

- E8-1.** The stated input rates of the tank heaters (H1, H2, and H3) are listed below. Should the permittee need to modify the tank heaters (H1, H2, and H3) in a manner that increases the stated input rates of the tank heaters (H1, H2, and H3), a construction permit or Title V modification shall be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

Unit #	Manufacturer	Stated Heat Input (MMBtu/hr)
H1	Babcock & Wilcox; 12 x 6	0.125
H2	Babcock & Wilcox; 12 x 6	0.125
H3	Babcock & Wilcox; 12 x 6	0.125

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance Method: The permittee shall maintain documentation to demonstrate the stated heat input rates and power output capacities of the tank heaters (H1, H2, and H3). Documentation may include, but is not limited to, based on vendor data are modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

- E8-2.** The boilers or process heaters (H1, H2, and H3) are located at a major source of hazardous air pollutants (HAPs) are subject to 40 CFR 63, Subpart DDDDD, NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MAJOR SOURCES: INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS, including any and/or all applicable emission limitations, notifications, compliance options, records, reports, etc. as summarized, but not limited to the following in this condition. Pursuant to 40 CFR §63.7495(b), any existing boiler or process heater shall be in compliance by January 31, 2016. Each process heater unit (H1, H2, and H3) was constructed prior to June 4, 2010, and operated as an existing source at this facility.

40 CFR §§63.7490(b), 63.7495(b), and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with this condition shall be assured based on information available to the Technical Secretary which 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.

- E8-3.** For the purposes of 40 CFR Part, 63, Subpart DDDDD, the tank heaters (H1, H2, and H3) are designed to burn gas 1 fuels (natural gas) subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in §63.7540. Tank heaters (H1, H2, and H3) designed to burn gas 1 fuel subcategory is not subject to the emission limits in Tables 1 and 2 or 12 and 13 to this subpart, or the operating limits in Table 4 to this subpart.

40 CFR §§63.7540, 63.7500(e), 63.7515(d), and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance is assured by using only pipeline quality natural gas and conducting tune-ups every five years.

- E8-4.** The permittee must meet the applicable work practice standards in Table 3 to Subpart DDDDD for each affected unit designed to burn gas 1 fuels (natural gas) subcategory in accordance with 40 CFR §63.7500:

If the unit is . . .	The permittee must. . .
A new or existing boiler or process heater with a heat input capacity of less than or equal to five million Btu per hour in any of the unit designed to burn gas 1	Conduct a tune-up of the boiler or process heater every five years as specified in §63.7540.

40 CFR §§63.7500(e), 63.7515(e) and (j), 63.7515(d), 63.7540, Table 3 to 40 CFR 63, Subpart DDDDD, and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with the requirement to complete a tune-up every five years is demonstrated by conducting the required subsequent tune-ups every five years, beginning on December 11, 2015, and by the reports required by **Conditions E2(c) and E8-8.**

- E8-5.** The permittee must complete the first tune-up and inspection on the tank heaters (H1, H2, and H3) no later than January 31, 2016; unless it is not in operation at this time, where a tune-up must be completed within 30 days after its restart. Following the first tune-up, the permittee must have subsequent tune-ups and inspections conducted tank heaters (H1, H2, and H3) within the applicable 5-year schedule (no more than 61 months after the previous tune-up and inspection).

The inspection includes measuring the concentration of CO in the effluent gas stream in ppmv and oxygen in volume percent, at high fire or typical operating load and both before and after the tune-up; and maintaining a record/report of the results of the inspection.

40 CFR §§63.7500(e), Item #1 and Table 3 of 40 CFR 63, Subpart DDDDD, and TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee completed the Initial Compliance Demonstration including the required first tune-up on April 6, 2016, as stated in the Notification of Compliance Status (NOCS) dated April 6, 2016. Compliance with the requirement to complete a tune-up every five years is demonstrated by conducting the required subsequent tune-ups every five years as required by **Conditions E2(c)1 and E8-8**.

E8-6. Each tune-up conducted to demonstrate compliance with the requirements of 40 CFR 63, Subpart DDDDD shall include the following elements:

- (a) As applicable, inspection of the burner, and cleaning or replacing of any components of the burner as necessary (the permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
- (b) Inspection of the flame pattern, as applicable, and adjustment of the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
- (c) Inspection of the system controlling the air-to-fuel ratio, as applicable, and verification that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown);
- (d) Optimization of total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;
- (e) Measurement of the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and;
- (f) Maintaining on-site and submitting, if requested by the Technical Secretary, a report containing the information in paragraphs (1) through (3) below,
 - (1) 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;
 - (2) A description of any corrective actions taken as a part of the tune-up; and
 - (3) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

40 CFR §§63.7500(e), 63.7510(g), 63.7515(d) 63.7540(a)(12) through (13), Item #1 of Table 3 to 40 CFR 63, Subpart DDDDD, and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with this condition shall be assured based on information available to the Technical Secretary which 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.

E8-7. The tank heaters (H1, H2, and H3) must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions.

40 CFR §63.7500(a)(3) and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with this condition shall be assured based on information available to the Technical Secretary which 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.

E8-8. The permittee shall maintain records of the following information for the tank heaters (H1, H2, and H3). These records shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records must be kept on site, or they must be accessible from on site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record,

according to 40 CFR §63.10(b)(1). The records may be kept off site for the remaining three years. Logs and records are not required to be submitted semiannually unless specified in **Condition E2(c)**.

- (a) a copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting the Initial Notification and all subsequent Notifications of Compliance Status and/or 5-year compliance reports;
- (b) actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the equipment to normal operations.

40 CFR §§63.7555, 63.7560, 63.10(b) and (c), and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with this condition shall be assured based on information available to the Technical Secretary which 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.

- E8-9.** Only natural gas shall be used as a fuel source for the tank heaters (H1, H2, and H3).

TAPCR 1200-03-09-.03(8) and Title V permit application dated February 27, 2024

Compliance Method: The permittee certify in the annual certification of compliance that only natural gas was used as fuel for the tank heaters (H1, H2, and H3).

- E8-10.** Particulate Matter (PM) emitted from each of the tank heaters (H1, H2, and H3) shall not exceed **0.60** lb/MMBtu of heat input.

TAPCR 1200-03-06-.02(2) and the Title V permit application dated February 27, 2024

Compliance Method: The potential PM emissions from this source are less than five tons per year. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3(i).

- E8-11.** Carbon Monoxide (CO) emitted from the tank heaters (H1, H2, and H3) shall not exceed a combined total of **0.15** tons during any period of 12-consecutive months.

TAPCR 1200-03-06-.03(2) and the Title V permit application dated February 27, 2024

Compliance Method: The potential CO emissions from this source are less than five tons per year. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3(i).

- E8-12.** Nitrogen Oxides (NO_x) emitted from this source shall not exceed a combined total of **0.15** tons during any period of 12-consecutive months.

TAPCR 1200-03-06-.03(2) and the Title V permit application dated February 27, 2024

Compliance Method: The NO_x emissions from this source are less than five tons per year. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1(iii) and 1200-03-10-.04(2)(b)(1), and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3(i).

END OF TITLE V PERMIT NUMBER: 582189

ATTACHMENT 1

**OPACITY MATRIX DECISION TREE for
VISIBLE EMISSION EVALUATION METHOD 9
dated June 18, 1996 and amended September 11, 2013**

DRAFT/PROPOSED

Notes:

PM = Periodic Monitoring required by Rule 1200-03-09-.02(11)(c)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO₂, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

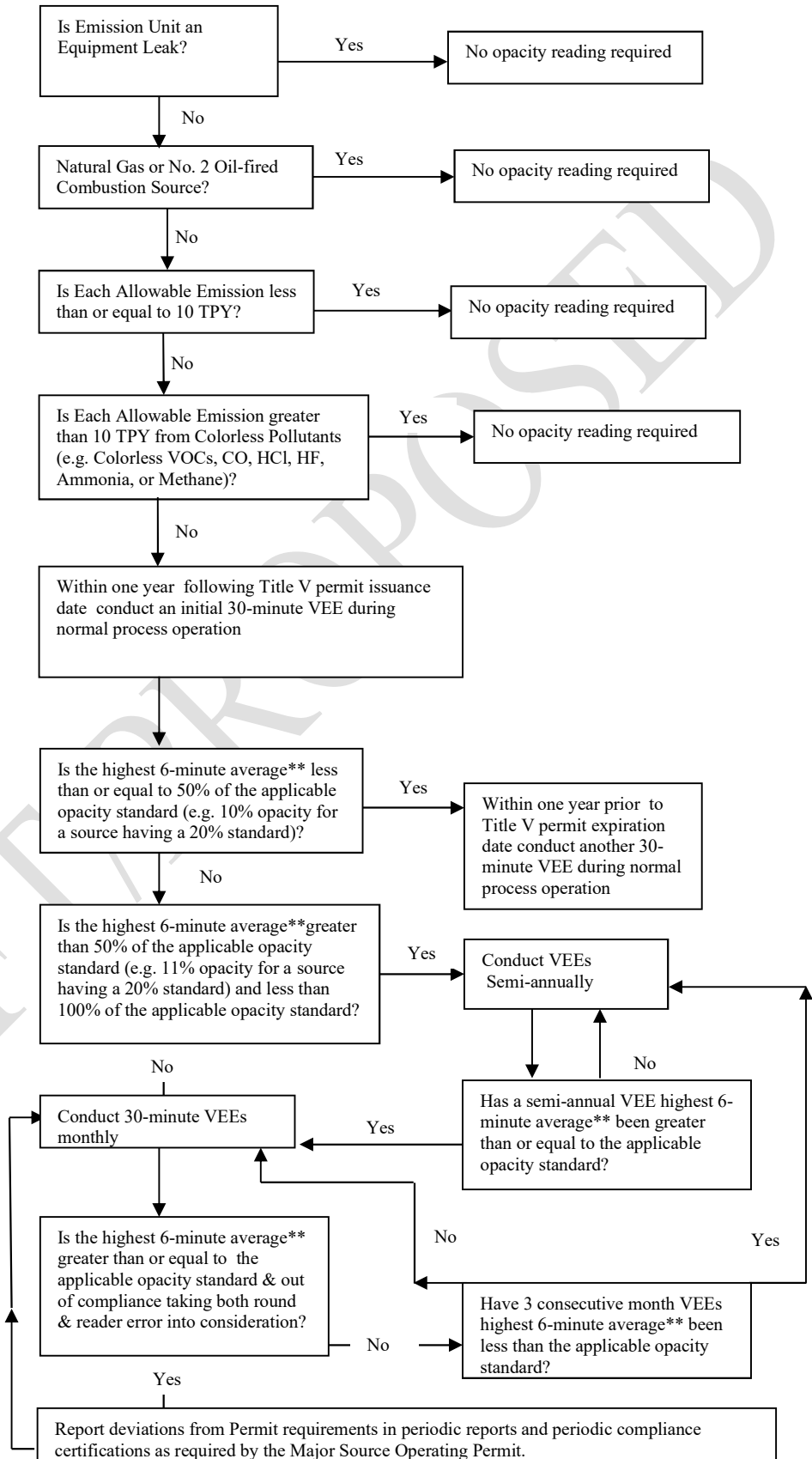
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declare non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*



Dated June 18, 1996
Amended September 11, 2013

DRAFT/PROPOSED

ATTACHMENT 2

Memorandum of August 14, 1987 by John B. Rasnic of EPA

DRAFT/PROPOSED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 14 1987

OFFICE OF
AIR AND RADIATIONMEMORANDUM

SUBJECT: Authority for Approval of Custom Fuel Monitoring
Schedules Under NSPS Subpart GG

FROM: John B. Rasnic, Chief *John B. Rasnic*
Compliance Monitoring Branch

TO: Air Compliance Branch Chiefs
Regions II, III, IV, V, VI and IX

Air Programs Branch Chiefs
Regions I-X

The NSPS for Stationary Gas Turbines (Subpart GG) at 40 CFR 60.134(b)(2) allows for the development of custom fuel monitoring schedules as an alternative to daily monitoring of the sulfur and nitrogen content of fuel fired in the turbines. Regional Offices have been forwarding custom fuel monitoring schedules to the Stationary Source Compliance Division (SSCD) for consideration since it was understood that authority for approval of these schedules was not delegated to the Regions. However, in consultation with the Emission Standards and Engineering Division, it has been determined that the Regional Offices do have the authority to approve Subpart GG custom fuel monitoring schedules. Therefore it is no longer necessary to forward these requests to Headquarters for approval.

Over the past few years, SSCD has issued over twenty custom schedules for sources using pipeline quality natural gas. In order to maintain national consistency, we recommend that any schedules Regional Offices issue for natural gas be no less stringent than the following: sulfur monitoring should



2

be bimonthly, followed by quarterly, then semiannual, given at least six months of data demonstrating little variability in sulfur content and compliance with \$60.333 at each monitoring frequency; nitrogen monitoring can be waived for pipeline quality natural gas, since there is no fuel-bound nitrogen and since the free nitrogen does not contribute appreciably to NO_x emissions. Please see the attached sample custom schedule for details. Given the increasing trend in the use of pipeline quality natural gas, we are investigating the possibility of amending Subpart GG to allow for less frequent sulfur monitoring and a waiver of nitrogen monitoring requirements where natural gas is used.

Where sources using oil request custom fuel monitoring schedules, Regional Offices are encouraged to contact SSCD for consultation on the appropriate fuel monitoring schedule. However, Regions are not required to send the request itself to SSCD for approval.

If you have any questions, please contact Sally M. Farrell at FTS 382-2875.

Attachment

cc: John Crenshaw
George Walsh
Robert Ajax
Earl Salo

ATTACHMENT 3**Example Logs****FISCAL YEARLY LOG OF TOTAL EMISSIONS FROM COMPRESSOR STATION FOR FEE PURPOSES**

From July 1, _____ through June 30, _____

Unit #	Natural Gas Usage (MM SCF)	Stated Power Output (hp)	Hours of Operation	Horsepower-Hours (hp-hr)	Fuel Heating Value (HHV) (btu/scf)	Pollutant	Emission Factor and Basis	Emissions (tons/fiscal year)
401						PM		
						SO ₂		
						VOC		
						NO _x		
						Non-VOC HAPs		
etc.						PM		
						SO ₂		
						VOC		
						NO _x		
						Non-VOC HAPs		
412						PM		
						SO ₂		
						VOC		
						NO _x		
						Non-VOC HAPs		
etc.						PM		
						SO ₂		
						VOC		
						NO _x		
						Non-VOC HAPs		

ATTACHMENT 4**Applicability of General Provisions to Subparts ZZZZ and Subpart DDDDD**

You are required to comply with the following General Provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP):

General Provisions Citation	Subject of Citation	Applies to Subpart(s)	Explanation
§63.1	General applicability of the General Provisions	Yes. Both	
§63.2	Definitions	Yes. Both	Additional terms defined in §§63.6675 and 63.7575.
§63.3	Units and abbreviations	Yes. Both	
§63.4	Prohibited activities and circumvention	Yes. Both	
§63.5	Construction and reconstruction	Yes. Both	
§63.6(a)	Applicability	Yes. Both	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes. Both	
§63.6(b)(5)	Notification	Yes. Both	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes. Both	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes. Both	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes. Both	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No. Both	
§63.6(f)(1)	Applicability of standards	No. Both	
§63.6(f)(2)	Methods for determining compliance	Yes. Both	
§63.6(f)(3)	Finding of compliance	Yes. Both	
§63.6(g)(1)–(3)	Use of alternate standard	Yes. Both	
§63.6(h)	Opacity and visible emission standards	No. Both	Subparts ZZZZ and DDDDDD does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes. Both	
§63.6(j)	Presidential compliance exemption	Yes. Both	
§63.7(a)(1)–(2)	Performance test dates	Yes. Both	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes. Both	
§63.7(b)(1)	Notification of performance test	Yes. Both	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes. Both	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes. Both	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes. Both	

General Provisions Citation	Subject of Citation	Applies to Subpart(s)	Explanation
§63.7(e)(1)	Conditions for conducting performance tests	No. Both	Subparts ZZZZ and DDDDD specifies conditions for conducting performance tests at §§63.6620 and 63.7520(a) to (c).
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes. Both.	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes. Both.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes. Both.	
§63.7(f)	Alternative test method provisions	Yes. Both.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes. Both.	
§63.7(h)	Waiver of tests	Yes. Both.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes. Both.	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes. Both.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	Yes. DDDDD only	
§63.8(b)(1)	Monitoring	Yes. Both.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes. Both.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes. Both.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes. ZZZZ only.	For Subpart DDDDD, §63.7500(a)(3).
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes. Both.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes. ZZZZ only.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes. Both.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes. Both.	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	Yes. DDDDD only.	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes. Both.	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes. Both.	Subpart DDDDD does not require startup, shutdown, and malfunction plans.
§63.8(e)	CMS performance evaluation	Yes. Both.	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes. Both.	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes. Both.	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes. Both.	Except that provisions for COMS are not applicable. Averaging periods for demonstrating

General Provisions Citation	Subject of Citation	Applies to Subpart(s)	Explanation
			compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes. Both.	
§63.9(b)(1)–(5)	Initial notifications	Yes. Both.	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes. Both.	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes. Both.	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes. Both.	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	Yes. DDDDD only.	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes. Both.	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	Yes. DDDDD only.	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes. Both.	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes. Both.	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes. Both.	
§63.9(j)	Change in previous information	Yes. Both.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes. Both.	
§63.10(b)(1)	Record retention	Yes. Both.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No. Both.	For Subpart DDDDD, see §63.7555(d)(7) for recordkeeping of occurrence and duration and §63.7555(d)(8) for taken during malfunctions.
§63.10(b)(2)(vi)–(xi)	Records	Yes. Both.	
§63.10(b)(2)(xii)	Record when under waiver	Yes. Both.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes. Both.	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes. Both.	
§63.10(b)(3)	Records of applicability determination	Yes. ZZZZ only.	
§63.10(c)	Additional records for sources using CEMS	Yes. Both.	Except that §63.10(c)(2)–(4) and (9) are reserved.

General Provisions Citation	Subject of Citation	Applies to Subpart(s)	Explanation
§63.10(d)(1)	General reporting requirements	Yes. Both.	
§63.10(d)(2)	Report of performance test results	Yes. Both.	
§63.10(d)(3)	Reporting opacity or VE observations	No. Both.	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes. Both.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No. Both.	For DDDDD, See §63.7550(c)(11) for malfunction reporting requirements.
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes. Both.	
§63.10(e)(2)(ii)	COMS-related report	Yes. DDDDD only.	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes. Both.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	Yes. DDDDD only.	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes. Both.	
§63.11	Control Devices/Flares	No. Both.	
§63.12	State authority and delegations	Yes. Both.	
§63.13	Addresses	Yes. Both.	
§63.14	Incorporation by reference	Yes. Both.	
§63.15	Availability of information	Yes. Both.	

ATTACHMENT 5**Applicability of General Provisions to Subparts GG**

You are required to comply with the following General Provisions of the federal Standards of Performance for New Stationary Sources (NSPS):

General provisions citation 40 CFR	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes ☒ No ☐	
§60.2	Definitions	Yes ☒ No ☐	Additional terms defined in 40 CFR §60.331.
§60.3	Units and abbreviations	Yes ☒ No ☐	
§60.4	Address	Yes ☐ No ☐	
§60.5	Determination of construction or modification	Yes ☒ No ☐	
§60.6	Review of plans	Yes ☒ No ☐	
§60.7	Notification and Recordkeeping	Yes ☒ No ☐	
§60.8	Performance tests	Yes ☒ No ☐	
§60.9	Availability of information	Yes ☒ No ☐	
§60.10	State Authority	Yes ☒ No ☐	
§60.11	Compliance with standards and maintenance requirements	Yes ☒ No ☐	
§60.12	Circumvention	Yes ☒ No ☐	
§60.13	Monitoring requirements	Yes ☒ No ☐	Subpart GG contains specific requirements for monitoring at 40 CFR §60.334.
§60.14	Modification	Yes ☒ No ☐	
§60.15	Reconstruction	Yes ☒ No ☐	
§60.16	Priority list	Yes ☐ No ☒	
§60.17	Incorporations by reference	Yes ☒ No ☐	
§60.18	General control device requirements	Yes ☒ No ☐	
§60.19	General notification and reporting requirements	Yes ☒ No ☐	

ATTACHMENT 6

Turbines (412 and 413) Agreement Letter

DRAFT/PROPOSED



700 Louisiana Street, Suite 700
Houston, TX 77002
Phone: 832-320-5835
tiffany_grady@transcanada.com

July 24, 2019

The Technical Secretary
Tennessee Air Pollution Control Board
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243
ATTN: Jimmie Horton

Re: 60-0095/573964
Hampshire Compressor Station
4077 Booker Farm Road
Hampshire, TN 38461

Dear Technical Secretary:

Columbia Gulf Transmission Company agrees to be bound by a permit with the following more restrictive particulate matter (PM) and sulfur dioxide (SO₂) emission limits at its Hampshire Compressor Station.

1. **PM** emitted from source 60-0095-02 (Natural gas fired turbine engine unit listed below) shall not exceed 2.7 pounds per hour. **SO₂** emitted from this source shall not exceed 3.0 pounds per hour.

Source 60-0095-02 Natural Gas Fired Turbine Engine Unit			
Unit #	Model	Rated Heat Input (HHV) (MMBtu/hr)	Rated Power Output (horsepower)
413	Solar Mars 100	136.5	17,578

2. **PM** emitted from source 60-0095-05 (Natural gas fired turbine engine unit listed below) shall not exceed 2.7 pounds per hour. **SO₂** emitted from this source shall not exceed 3.0 pounds per hour.

Source 60-0095-05 Natural Gas Fired Turbine Engine Unit			
Unit #	Model	Rated Heat Input (HHV) (MMBtu/hr)	Rated Power Output (horsepower)
412	Solar Mars 100	136.5	17,578

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Sincerely,

John D. Sellers
Operations Manager

ATTACHMENT 7**TITLE V FEE SELECTION**

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 DIVISION OF AIR POLLUTION CONTROL
 Davy Crockett Tower, 7th Floor
 500 James Robertson Parkway, Nashville, TN 37243
 Telephone: (615) 532-0554
 Email: Air.Pollution.Control@TN.gov

APC 36

Type or print and submit to the email address above.

FACILITY INFORMATION**1. Organization's legal name and SOS control number** [as registered with the TN Secretary of State (SOS)]**2. Site name** (if different from legal name)**3. Site address** (St./Rd./Hwy.)

County name

City

Zip code

4. Emission source reference number**5. Title V permit number****FEE SELECTION**

This fee selection is effective beginning January 1, _____. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.

6. Payment Schedule (choose one):Calendar Year Basis (January 1 – December 31) ☐Fiscal Year Basis (July 1 – June 30) ☐**7. Payment Basis (choose one):**

Actual Emissions Basis ☐ Allowable Emissions Basis ☐ Combination of Actual and Allowable Emissions Basis ☐

8. If Payment Basis is "Actual Emissions" or "Combination of Actual and Allowable Emissions", complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit.
			If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

8. (Continued)

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit.
			If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

CONTACT INFORMATION (BILLING)

9. Billing contact			Phone number with area code
Mailing address (St./Rd./Hwy.)			Fax number with area code
City	State	Zip code	Email address

SIGNATURE BY RESPONSIBLE OFFICIAL

Based upon information and belief formed after reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in the submittal is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature		Date
Signer's name (type or print)	Title	Phone number with area code

ATTACHMENT 8**Notification of Changes****Facility (Permittee)** Columbia Gulf Transmission - Hampshire Compressor Station**Facility ID** 60-0095**ESN** _____

	Control Equipment	Stack Height (Feet)	Stack Diameter (Feet)	Exit Velocity (Feet/Second)	Exit Temperature (°F)
Current					
Proposed					
Current					
Proposed					
Current					
Proposed					

Comments:

As the Responsible Person of the above mentioned facility (permittee), I certify that the information contained in this Notification is accurate and true to the best of my knowledge. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Signature		Date
Signer's name (print)	Title	Phone (with area code)



700 Louisiana Street, Suite 700
Houston, TX 77002
Phone: 832-320-5835
tiffany_grady@transcanada.com

July 24, 2019

The Technical Secretary
Tennessee Air Pollution Control Board
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243
ATTN: Jimmie Horton

Re: 60-0095/573964
Hampshire Compressor Station
4077 Booker Farm Road
Hampshire, TN 38461

Dear Technical Secretary:

Columbia Gulf Transmission Company agrees to be bound by a permit with the following more restrictive particulate matter (PM) and sulfur dioxide (SO₂) emission limits at its Hampshire Compressor Station.

1. **PM** emitted from source 60-0095-02 (Natural gas fired turbine engine unit listed below) shall not exceed 2.7 pounds per hour. **SO₂** emitted from this source shall not exceed 3.0 pounds per hour.

Source 60-0095-02 Natural Gas Fired Turbine Engine Unit			
Unit #	Model	Rated Heat Input (HHV) (MMBtu/hr)	Rated Power Output (horsepower)
413	Solar Mars 100	136.5	17,578

2. **PM** emitted from source 60-0095-05 (Natural gas fired turbine engine unit listed below) shall not exceed 2.7 pounds per hour. **SO₂** emitted from this source shall not exceed 3.0 pounds per hour.

Source 60-0095-05 Natural Gas Fired Turbine Engine Unit			
Unit #	Model	Rated Heat Input (HHV) (MMBtu/hr)	Rated Power Output (horsepower)
412	Solar Mars 100	136.5	17,578

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Sincerely,

John D. Sellers
Operations Manager



STATEMENT OF BASIS
Page 1 of 9
TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

FACILITY CATEGORY

This facility is a major source of emissions. The facility-wide PTE of one or more regulated air pollutants, Carbon Monoxide (CO), Nitrogen Oxide (NO_x), and Hazardous Air Pollutants (HAPs) are at or above the Title V major source thresholds. The PSD applicability threshold for this facility is 250 TPY because the natural gas compressor and transmission station operation is not one of the 28 listed source categories in the PSD regulations.

FACILITY DESCRIPTION

This facility is a natural gas compressor and transmission station operation that involves compressing the natural gas transmission pipeline network for maintaining natural gas flow within a regional area. The facility operates 7 days per week, 24 hours per day, and 52 weeks per year. Operations at the facility are categorized under the Standard Industrial Classification (SIC) code 4922, Natural Gas Transmission.

This facility processes natural gas flow compressions through the transmission pipeline network with the use of the following emission source units:

Sources 02 and 06 - Two Solar Mars stationary gas compressor turbines (412 and 413) are existing emission sources at the facility. The turbines (412 and 413) generate power for gas compressor and transmission equipment. HAPs emissions emitted from the turbines (412 and 413) are primarily VOC HAPs. No control devices are used for controlling emissions while the turbines (412 and 413) are in operation at the facility.

Source 03 - Seven Clark TLA reciprocating compressor engines (401-407) are existing emission sources at the facility. The compressor engines (401-407) compress the natural gas low pressure line points within the gas transmission pipelines to move the natural gas through from the facility to the next point of delivery that is expected to receive the natural gas. HAPs emissions emitted from the compressor engines (401-407) are primarily VOC HAPs. No control devices are used for controlling emissions while the compressor engines (401-407) are in operation at the facility.

Source 04 - Two Waukesha and Ford emergency generator engines (G3 and G4). The emergency generator engines (G3 and G4) generate power during unexpected interruptions operations with the compression and transmission equipment at the facility. HAPs emissions emitted from the emergency generator engines (G3 and G4) are primarily VOC HAPs. The Kohler emergency generator engine (G5) and Ford emergency fire pump engine (P2) are decommissioned emission source units and no longer operating at the facility. Control devices are not used for controlling emissions while the emergency generators (G3 and G4) are in operation at the facility.

Source 06 - Three Babcock & Wilcox tank heaters (H1, H2, and H3). The tank heaters (H1, H2, and H3) produce thermal energy to maintain compressor engine temperatures at optimum levels while the units are in operation at the facility. HAPs emissions emitted from the tank heaters (H1, H2, and H3) are primarily VOC HAPs. Control devices are not used for controlling emissions while the tank heaters (H1, H2, and H3) are in operation at the facility.

Emission units such as lubricating oil, glycol, coolant, and wastewater tanks are considered as insignificant activities at the facility.

PROJECT DESCRIPTION

Columbia Gulf Transmission – Hampshire Compressor Station is requesting a major source (Title V) operating permit renewal.

COMPLIANCE STATUS

This facility is located in an attainment area for all criteria pollutants according to the NAAQS.



STATEMENT OF BASIS
Page 2 of 9
TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

This facility had a compliance inspection conducted on November 19, 2025. The facility was found to be in compliance with the applicable requirements of the permit.

No violation of permit conditions observed.

The facility is current on Title V fees as of August 20, 2025.

COLLOCATION DETERMINATION

Collocation is not applicable to this facility.

PUBLIC NOTICE

This Title V Permit Renewal will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with TAPCR 1200-03-09-.02(11). The notice was published on the TDEC Public Participation Opportunity (PPO) website on TBD.

ADDITIONAL PUBLIC PARTICIPATION

EPA Region IV

Alabama Department of Environmental Management

Metro Nashville Local Air Program

Table 1A: FACILITY EMISSION SOURCES

<i>Source Number</i>	<i>Source Description</i>	<i>Permitted</i>	<i>Exempt/Insignificant</i>	<i>PBR</i>
02	Solar Mars Stationary Gas Compressor Turbine (413)	X		
03	Seven Clark Compressor Engines (401-407)	X		
04	Two Waukesha and Ford Emergency Generator Engines (G3 and G4)	X		
04	Two Kohler Gasoline Emergency Generator (G5) and Ford Emergency Fire Water Pump (P2) <i>Decommissioned Units</i>			
05	Solar Mars Stationary Gas Compressor Turbine (412)	X		
06	Three Babcock & Wilcox Tank Heaters (H1-H3)	X		
A0001	5,000 gallon Lube Oil Tank		X	
A0002	5,000 gallon Lube Oil Tank		X	
A0003	5,000 gallon Glycol Tank		X	
A0004	1,144 gallon Engine Oil Recovery Tank		X	
A0005	700 gallon Engine Coolant Recovery Tank		X	
A0008	8,800 gallon Oil/Water Mixture Tank		X	



STATEMENT OF BASIS
Page 3 of 9
TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

Source Number	Source Description	Permitted	Exempt/Insignificant	PBR
A0009	8,800 gallon Used Oil Tank		X	
A0010	8,800 gallon Wastewater Tank		X	
FUG	Fugitive Emissions from Multiple Emission Units		X	

Table 1B: CHANGES SINCE LAST PERMIT ISSUANCE

Description	Date
Revised Condition A11.	TBD
Revised compliance certification submission requirements in Condition B6.	
Added Condition D15.	
Revised Condition E3-3.	
Added when paying fees on an actual emissions basis to Condition E3-12.	
Added Conditions E3-13 through E3-16.	
Revised Condition E4-1.	
Revised Conditions E4-4, E4-5, and E4-7.	
Revised Condition E5-1.	
Added Conditions E5-6 and E5-7.	
Revised Conditions E6-1, E6-3, E6-7, and E6-14.	
Added Condition E6-15.	
Removed the emergency generator (G5) and fire water pump (P2) from Conditions E6-1 through E6-13.	
Revised Conditions E7-1, E7-4, E7-5, and E7-7.	
Revised Conditions E8-1, E8-11, and E8-12.	
Removed Conditions E8-13, E8-14, and E8-15.	

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)
Chapter 6 TAPCR 1200-03-06-.01(7) TAPCR 1200-03-06-.03(2)	Applicable: This facility has non-process emission sources that burn natural gas. Compliance shall be assured by the natural gas tariff sheet, EPA AP-42 Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Table 3.1-2a, Supplement to the 5th Ed., 4/00, Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-1 Supplement to the 5th Ed., dated 7/00, manufacturer-specified NO_x exhaust concentration data based on vendor data for modes of operation including, but not limited to, low load/rapid transience operating modes, and demonstrated by recordkeeping as required by the permit. PM limitations are established in the agreement letter dated June 23, 2019, from the permittee.



STATEMENT OF BASIS
Page 4 of 9
TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)
Chapter 7	Not Applicable: This facility is not subject to the requirements of this chapter.
Chapter 10 <i>TAPCR 1200-03-10-.04(2)(b)</i>	Applicable: This facility is subject to the recordkeeping and reporting requirements outlined in this chapter.
Chapter 14 <i>TAPCR 1200-03-14-.01(3)</i>	Applicable: This facility has emission sources that emit SO ₂ . Compliance shall be assured by the natural gas tariff sheet, EPA AP-42 Emission Factors for Stationary Gas Turbines, Chapter 3, Section 1, Table 3.1-2a, Supplement to the 5th Ed., 4/00, Natural Gas-Fired Reciprocating Engines, Chapter 3, Section 2, Table 3.2-1 Supplement to the 5th Ed., dated 7/00, and demonstrated by recordkeeping as required by the permit. SO ₂ limitations are established in the agreement letter dated June 23, 2019, from the permittee.
Other state regulations: Chapter(s) 16, 18, 22, 25, 27, etc.	Not Applicable: This facility is not subject to the requirements of these chapters.
40 CFR 60 <i>(NSPS)</i>	Subpart GG Applicable: The turbines (412 and 413) are subject to Subpart GG: Standards of Performance for Stationary Gas Turbines. Construction for the turbines (412 and 413) commenced after October 3, 1977, and the heat input at peak load is equal to and is greater than 10 MMBtu/hr. Requirements are outlined 40 CFR §§60.332 and 60.333.



STATEMENT OF BASIS
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TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)
40 CFR 61 (<i>NESHAP</i>)	Not Applicable: This facility is not subject to the requirements of 40 CFR 61. (benzene, beryllium, arsenic, vinyl chloride or radon) subject to this regulation.
40 CFR 62 (<i>Federal Plans</i>)	Not Applicable: This facility is not subject to the requirements of 40 CFR 62. The facility is not subject to any Federal Plans specified in 40 CFR 62.13.
40 CFR 63 (<i>NESHAP</i>)	Applicable: The facility is a major source of HAP emissions. HAP emissions are equal to and/or exceed the major threshold of 10 TPY for a single HAP and 25 TPY for total HAPs. The facility is subject to Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engine, and Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters. Requirements are outlined 40 CFR §§63.6602 and 63.7500.
40 CFR 68 (<i>112(r)</i>)	Not Applicable: This facility is not subject to the requirements of 40 CFR 68. The facility does not use or store the subject chemicals above threshold quantities.
40 CFR 64 (<i>CAM</i>)	Not Applicable: This facility is not subject to the requirements of 40 CFR 64. The Pollutant Specific Emissions Unit (PSEU) does not meet the applicability criteria outlined in 40 CFR 64. Emission source units, Sources 02 and 05 are subject to 40 CFR 60, Subpart GG, Sources 03 and 04 are subject to 40 CFR 63, Subpart ZZZZ, and Source 06 is subject to 40 CFR 63, Subpart DDDDD. These subparts have been proposed after November 15, 1990.



STATEMENT OF BASIS
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TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

DRAFT/PROPOSED



STATEMENT OF BASIS
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TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

REGULATORY APPLICABILITY REVIEW

Regulations	Comments/ Requirements (Monitoring/Recordkeeping/Reporting/Testing)
<u>Special Conditions, Monitoring, Limits</u>	Applicable: The CO emissions emitted the turbines (412 and 413) combined total shall not exceed 220 tons per any calendar year. Compliance will include recordkeeping based on manufacturer-specified Carbon Monoxide (CO) exhaust concentration data based on vendor data for modes of operation including, but not limited to, startup, shutdown, and low temperature ambient air.
Modeling Review	Not Applicable: This facility is not subject to modeling review requirements. This facility does not emit Pb, HCl or HF.
PREVIOUS Permit Number(s)	Permit Number 573964 (Administrative Amendment #1)

EMISSION SUMMARY

Table 2: SOURCE SPECIFIC EMISSIONS

PERMIT EMISSIONS				
SOURCE 02				
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	2.74			3.95
SO ₂	0.29			0.43
NO _x	78.61			92.44
CO	57.62			85.38
VOC	1.29			2.45
Single HAP				
Total HAPs	VOC includes HAPs			VOC includes HAPs

Include the TPY values for PM and SO₂ even if TPY emission limits are not set in the permit.



STATEMENT OF BASIS
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TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

PERMIT EMISSIONS

SOURCE 03

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	17.15			24.85
SO ₂	0.28			0.28
NO _x	1151.57			1674.05
CO	196.98			286.37
VOC	42.63			61.81
Single HAP				
Total HAPs	VOC includes HAPs			VOC includes HAPs

Include the TPY values for PM and SO₂ even if TPY emission limits are not set in the permit.

PERMIT EMISSIONS

SOURCE 04

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.00			0.04
SO ₂	0.00			0.00
NO _x	0.06			4.52
CO	0.10			7.60
VOC	0.00			0.06
Single HAP				
Total HAPs	VOC includes HAPs			VOC includes HAPs

Include the TPY values for PM and SO₂ even if TPY emission limits are not set in the permit.

PERMIT EMISSIONS

SOURCE 05

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	2.74			3.95
SO ₂	0.29			0.43
NO _x	78.61			92.44
CO	57.62			85.38
VOC	1.29			2.45
Single HAP				
Total HAPs	VOC includes HAPs			VOC includes HAPs

Include the TPY values for PM and SO₂ even if TPY emission limits are not set in the permit.



STATEMENT OF BASIS
Page 9 of 9
TDEC Division of Air Pollution Control

Facility Name: Columbia Gulf Transmission – Hampshire Station
Permit Number: 582189
Permit Writer: Jimmie Horton

Facility ID Number: 60-0095
Date Application Received: February 27, 2024
Date Application Completed: February 27, 2024

PERMIT EMISSIONS

SOURCE 06

Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)	Allowable/Permitted Allowable
	TPY	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	0.01			0.01
SO ₂	0.00			0.00
NO _x	0.09			0.15
CO	0.06			0.15
VOC	0.00			0.01
Single HAP				
Total HAPs	VOC includes HAPs			VOC includes HAPs

Include the TPY values for PM and SO₂ even if TPY emission limits are not set in the permit.

Table 3: FACILITY WIDE EMISSIONS

FACILITY WIDE EMISSIONS			
Pollutant	Actual/Controlled Emissions	Uncontrolled Emissions	Potential to Emit (PTE)
	TPY	TPY	TPY
PM/PM ₁₀ /PM _{2.5}	15.89		32.83
SO ₂	0.69		1.20
NO _x	875.01		1864.17
CO	232.77		514.10
VOC	29.32		66.79
Single HAP			
Total HAPs	VOC includes HAPs		VOC includes HAPs

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.

From: [Air.Pollution Control](#)
To: [APC Permitting](#)
Subject: FW: Title V Renewal Application: Columbia Gulf Transmission, LLC - Hampshire Compressor Station (60-0095)
Date: Tuesday, February 27, 2024 4:57:11 PM
Attachments: [image001.png](#)
[2024-2-22 FINAL Hampshire Renewal Application, signed.pdf](#)

From: Cynthia Hicks <cynthia_hicks@tcenergy.com>
Sent: Tuesday, February 27, 2024 1:56 PM
To: Air.Pollution Control <Air.Pollution.Control@tn.gov>
Cc: Chase Lyles <chase_lyles@tcenergy.com>; Cynthia Hicks <cynthia_hicks@tcenergy.com>
Subject: [EXTERNAL] Title V Renewal Application: Columbia Gulf Transmission, LLC - Hampshire Compressor Station (60-0095)

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

To Whom It May Concern:

Attached is the Title V permit renewal application for Columbia Gulf Transmission's Hampshire Compressor Station, located in Maury County, Tennessee. The Station is currently covered by Title V Permit No. 573964, became effective on September 18, 2019, was amended on January 6, 2020, and is scheduled to expire on September 17, 2024. CGT is submitting this renewal application by March 21, 2024, pursuant to permit condition A12 which requires an application submittal at least 180 days but not more than 270 days prior to the expiration of the permit.

Should you have any questions or need additional information, please feel free to contact me at (616) 610-2500 or via email at cynthia_hicks@tcenergy.com.

Thank you!
Cynthia

Cynthia Hicks (she/her)
US Environment – Air Emissions **Position Title -**
US Natural Gas Pipelines
cynthia_hicks@tcenergy.com
mobile: (616) 610-2500



4193 134th Avenue
Hamilton, MI 49419
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February 22, 2024

State of Tennessee
Department of Environment and Conservation
Division for Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243
Submitted via email to: Air.Pollution.Control@tn.gov

RE: Title V Permit Renewal Application
Columbia Gulf Transmission, LLC (CGT)
Hampshire Compressor Station (Reference No. 60-0095)

Dear Technical Secretary:

Attached is the Title V permit renewal application for Columbia Gulf Transmission's Hampshire Compressor Station, located in Maury County, Tennessee. The Station is currently covered by Title V Permit No. 573964, became effective on September 18, 2019, was amended on January 6, 2020, and is scheduled to expire on September 17, 2024. CGT is submitting this renewal application by March 21, 2024, pursuant to permit condition A12 which requires an application submittal at least 180 days but not more than 270 days prior to the expiration of the permit.

Should you have any questions or need additional information, please feel free to contact me at (616) 610-2500 or via email at cynthia_hicks@tcenergy.com.

Sincerely,

Cynthia A.D. Hicks

Cynthia Hicks

US Environment – Air Emissions
US Natural Gas Pipelines

Attachments

cc: Chase Lyles, TC Energy, Environmental Analyst (electronic)
Hampshire Compressor Station Files (electronic)
Houston Air Files (electronic)



**Title V Operating Permit
Renewal Application**

February 2024

Prepared for:

Columbia Gulf Transmission, LLC
Hampshire Compressor Station
Hampshire, Maury County, Tennessee

Prepared by:

Stantec Consulting Services Inc.
10745 Westside Way
Suite 250
Alpharetta, Georgia 30009



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COLUMBIA GULF TRANSMISSION, LLC – HAMPSHIRE COMPRESSOR STATION
TITLE V OPERATING PERMIT RENEWAL APPLICATION
FEBRUARY 2024

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1.0 INTRODUCTION

Columbia Gulf Transmission, LLC (CGT) owns and operates the Hampshire Compressor Station in Hampshire, Maury County, Tennessee. The Hampshire Compressor Station is classified as a major source under Title V regulations. Consistent with Federal Part 70 requirements, Tennessee's Department of Environment & Conservation (TDEC) Title V Operating Permit program is published under paragraph 1200-03-09-.02(11) of Tennessee Air Pollution Control Regulations (TAPCR). The facility is a major source of nitrogen oxides (NO_x), Carbon Monoxide (CO), Carbon Dioxide Equivalent (CO₂e) and hazardous air pollutants (HAPs).

1.1 DOCUMENT PURPOSE

Hampshire Compressor Station currently operates under Tennessee Title V Operating Permit No. 573964. This permit was issued on September 18, 2019, amended on January 6, 2020, and is scheduled to expire on September 17, 2024. The renewal application is due by March 21, 2024, 180 days prior to the permit expiration.

This submittal constitutes the renewal application required by the referenced Title V Permit.

1.2 PERMIT REQUEST

CGT is committed to demonstrating compliance with all federal and state air quality permitting requirements. This permit application demonstrates compliance with both federal and state requirements for permit renewal. This application is intended to satisfy all requirements of Title V of the 1990 Clean Air Act (CAA) as encoded in 40 CFR Part 70 and in paragraph 1200-03-09-.02, section 11(a) of Tennessee Air Pollution Control Regulations (TAPCR), "Operating Permits".

Section 503(d) of the CAA provides that, once a timely and complete application for an operating permit has been filed, the applicant is shielded from enforcement action for operating without a permit until the permit has been issued or other action has been taken on the application. Therefore, by submitting this application, CGT requests a permit shield to avoid enforcement action for operating without a permit during the period in which this permit application is under review if the current permit expires before a new permit is issued.

By signing the CN-1397 application form provided by Tennessee Division of Air Pollution Control, the responsible official certifies that this submittal constitutes a complete application. The responsible official for the Hampshire facility has provided the required certification, and CGT requests that the Tennessee Division of Air Pollution Control provide the determination that this application is complete. Pursuant to 40 CFR 70.7, the application is deemed complete if a notice of incompleteness is not received within 60 days. There are no fees associated with a Title V Renewal application in Tennessee.



1.3 CONTACT INFORMATION

If there are any questions or comments regarding this application, please Ms. Cynthia Hicks of TC Energy at (616) 610-2500 or via email at cynthia_hicks@tcenergy.com.

1.4 REPORT ORGANIZATION

The remainder of this renewal application is divided into the following sections and appendices:

- Section 2.0: Facility Information
- Section 3.0: Regulatory Applicability Summary
- Appendix A: Application Forms
- Appendix B: Facility Map and Process Flow Diagram
- Appendix C: Emission Calculations

The table of contents contains a detailed listing of sections and appendices. The required forms for a Title V renewal application are located in Appendix A.



2.0 FACILITY INFORMATION

2.1 SITE LOCATION

CGT's Hampshire Station is located in Hampshire, Maury County, Tennessee. Figure 1 of Appendix B is an aerial photograph that identifies the plant layout.

Maury County is designated as "attainment" or "unclassifiable" for all pollutants for which National Ambient Air Quality Standards (NAAQS) have been promulgated.

The operations at the station are categorized under Standard Industrial Classification code 4922, *Natural Gas Transmission*, and under the North American Industry Classification System code 486210, *Pipeline Transportation of Natural Gas*.

2.2 EMISSION SOURCE DESCRIPTION

The facility transports natural gas along the pipeline by receiving inlet natural gas and compressing the gas to increase the pressure in the pipeline and maintain the downstream flow.

The Hampshire Compressor Station consists of seven (7) compressor engines, two (2) stationary gas compressor turbines, two (2) emergency engine/generators, and three (3) natural gas-fired tank heaters. The emergency generator (G5) and fire pump (P2) remain at the site, but have been decommissioned.

Table 2-1: Description of Significant Emission Units

Emission Point #	Description of Emission Unit
401	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
402	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
403	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
404	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
405	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
406	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
407	2,000 hp Internal Combustion Compressor Engine Clark TLA-6 (2SLB)
412	14,070 hp Stationary Gas Compressor Turbine Solar Mars 100-T15000S
413	14,070 hp Stationary Gas Compressor Turbine Solar Mars 100-T15000S



COLUMBIA GULF TRANSMISSION, LLC – HAMPSHIRE COMPRESSOR STATION
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FEBRUARY 2024
Facility Information

Emission Point #	Description of Emission Unit
G3	720 hp Internal Combustion Emergency Engine/Generator Waukesha L5790 (4SRB)
G4	46 hp Internal Combustion Emergency Engine/Generator Ford LSG-4231-6007-B (4SRB)
G5	12 hp Gasoline-Fired Internal Combustion Emergency Engine/Generator Kohler 20RZ - DECOMMISSIONED
P2	46 hp Engine-Driven Emergency Fire Water Pump Ford LSG-4231-6007-B (4SRB) - DECOMMISSIONED
H1	0.125 MMBtu/hr Natural gas-fired tank heater Babcock & Wilcox 12 X 6
H2	0.125 MMBtu/hr Natural gas-fired tank heater Babcock & Wilcox 12 X 6
H3	0.125 MMBtu/hr Natural gas-fired tank heater Babcock & Wilcox 12 X 6

None of these emission units use add-on emission control equipment to reduce emissions, and thus, the station is exempt from the compliance assurance monitoring (CAM) requirements in 40 CFR 64 (see Section 3.4 for further explanation).

The Hampshire Compressor Station includes a number of insignificant emission sources under 1200-03-09-.04 of the Tennessee air regulations. Insignificant activities at the Hampshire Compressor Station are identified in the Table 2-2 below.

Table 2-2: Insignificant Activities under the Tennessee air regulations

Equipment ID	Description of Insignificant Activity	TN Rule Citation
A0001, A0002	5,000 gallon Lube Oil Tanks	1200-03-09-.04(5)(a)4(i)
A0003	5,000 gallon Glycol Tank	1200-03-09-.04(5)(a)4(i)
A0004	1,144 gallon Engine Oil Recovery Tank	1200-03-09-.04(5)(a)4(i)
A0005	700 gallon Engine Coolant Recovery Tank	1200-03-09-.04(5)(a)4(i)
A0008	8,800 gallon Oil/Water Mixture Tank	1200-03-09-.04(5)(a)4(i)
A0009	8,800 gallon Used Oil Tank	1200-03-09-.04(5)(a)4(i)
A0010	8,800 gallon Wastewater Tank	1200-03-09-.04(5)(a)4(i)
FUG	Fugitive Emissions (includes fugitives from multiple process units)	1200-03-09-.04(5)(a)4(i)

2.3 REVISIONS TO THE PERMIT

There have been no changes to significant emission sources at the station since issuance of the current permit. However, the emergency generator (G5) and fire pump (P2) have been decommissioned. There are no proposed modifications to the Hampshire Compressor Station as a result of this renewal



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application. Any changes in emissions represented in this renewal application are related directly to the use of updated emission factors, updated fugitive component counts, calculation methods, updated fuel consumption data, natural gas heating contents, or rounding. The facility remains a major source under Title V regulations.



3.0 REGULATORY APPLICABILITY SUMMARY

The Hampshire Station is subject to a variety of federal and state air quality regulations which are discussed in this section.

3.1 PREVENTION OF SIGNIFICANT DETERIORATION

Hampshire Compressor Station is located in Maury County, which is designated by the U.S. EPA 40 CFR §81.316 as "attainment" or "unclassifiable" for all criteria pollutants. As such, new construction or modifications that result in emission increases are potentially subject to the Prevention of Significant Deterioration (PSD) permitting regulations. PSD applicability depends on the existing status of the facility (i.e., major or minor source) and the net emissions increases associated with the project.

The Tennessee PSD regulations are applicable to new major sources and major modifications to existing major sources located in areas classified as attainment or unclassifiable, are codified in TAPCR 1200-03-09-.01 (4)(a). The Hampshire Compressor Station is a major stationary source as defined in TAPCR 1200-03-09-.01(4)(b)(1), with a potential to emit greater than 250 tons per year of one or more regulated air pollutants. As an existing major source, physical changes and/or changes in the method of operation must be evaluated to determine whether they would result in a significant net emissions increase, and thereby qualify as a "major modification" subject to PSD review requirements.

CGT is not requesting any modification with this application that would subject emission units at the Hampshire Compressor Station to PSD requirements.

3.2 NEW SOURCE PERFORMANCE STANDARDS (NSPS)

NSPS contained in 40 CFR 60 require new, modified, or reconstructed sources to control emissions to the level achievable by the best demonstrated technology as specified in the relevant regulations. These NSPS regulations were reviewed to determine their applicability to the Hampshire Station equipment or to confirm non-applicability as appropriate. The results of this review are summarized below by regulatory citation.

3.2.1 40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units

Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) applies to steam generating units with a maximum design heat input capacity of greater than or equal to 10 MMBtu/hr, but less than or equal to 100 MMBtu/hr, which are constructed, modified or reconstructed after June 9, 1989 (per 40 CFR §60.40c(a)). Steam generating units are defined in 40 CFR §60.41c as devices that combust fuel and heat water or any heat transfer medium. There are no steam generating units at this facility greater than 10 MMBtu/hr. Therefore, this regulation is not applicable.



3.2.2 40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and prior to May 19, 1978

Subpart K (Standards of Performance for Storage Vessels for Petroleum Liquids) applies to storage vessels for which construction, reconstruction, or modification commenced after June 11, 1973 and prior to May 19, 1978. There are no petroleum storage vessels with capacity greater than 40,000 gallons at this facility. Therefore, this regulation is not applicable.

3.2.3 40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and prior to July 23, 1984

Subpart Ka (Standards of Performance for Storage Vessels for Petroleum Liquids) applies to storage vessels for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984. There are no petroleum storage vessels with capacity greater than 40,000 gallons at this facility. Therefore, this regulation is not applicable.

3.2.4 40 CFR 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

Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels including Petroleum Liquid Storage Vessels) applies to storage vessels for which construction, reconstruction, or modification commenced after July 23, 1984. There are no volatile organic liquid storage vessels with capacity greater than 75 cubic meters (19,812.9 gallons) at this facility. Therefore, this regulation is not applicable.

3.2.5 40 CFR 60 Subpart GG - Standards of Performance for Stationary Gas Turbines

Subpart GG (Standards of Performance for Stationary Gas Turbines) applies to stationary gas turbines for which construction, modification, or reconstruction commenced after October 3, 1977. The Solar Mars turbines (412 and 413) are both subject to this subpart and will continue to comply with applicable requirements.

3.2.6 40 CFR 60 Subpart KKK-Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants

Subpart KKK (Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants) applies to onshore natural gas processing plants. This regulation is not applicable to the Hampshire Station because the facility is not a natural gas processing plant as defined in the regulation.



3.2.7 40 CFR 60 Subpart LLL - Standards of Performance for Onshore Natural Gas Processing: SO₂ Emissions

Subpart LLL (Standards of Performance for Onshore Natural Gas Processing: SO₂ Emissions) applies to facilities that process natural gas: each sweetening unit, and each sweetening unit followed by a sulfur recovery unit. The Hampshire Station does not operate a sweetening unit or a sulfur recovery unit. Therefore, this regulation is not applicable.

3.2.8 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)

Subpart IIII (Standards of Performance for Stationary CI ICE) applies to manufacturers, owners, and operators of stationary CI ICE. The Hampshire Station does not operate any stationary CI ICE; therefore, this regulation does not apply.

3.2.9 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE)

Subpart JJJJ (Standards of Performance for Stationary SI ICE) applies to manufacturers, owners, and operators of stationary SI ICE. All engines at the Hampshire Compressor Station were constructed prior to June 12, 2006 and are, therefore, not subject to this Subpart. These engines are subject to NESHAP Subpart ZZZZ requirements.

3.2.10 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

Subpart KKKK (Standards of Performance for Stationary Combustion Turbines) applies to stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. This regulation is not applicable to the Hampshire Compressor Station because the Solar Mars turbines (412 and 413) were constructed prior February 18, 2005 and comply with NSPS Subpart GG.

3.2.11 40 CFR 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

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) establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO₂) emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015. The storage vessel requirements defined for transmission sources are not applicable to this site.



3.2.12 40 CFR 60 Subpart OOOOa—Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015) establishes emission standards and compliance schedules for the control of VOC and SO₂ emissions from affected facilities in the crude oil and natural gas production source category that commence construction, modification, or reconstruction after September 18, 2015. On June 30, 2021, President Joseph R. Biden, Jr. signed into law a joint resolution of Congress, adopted under the Congressional Review Act (“CRA”), disapproving the final rule of the Environmental Protection Agency (EPA) titled, “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review,” 85 FR 57018 (Sept. 14, 2020) (“2020 Policy Rule”). The 2020 Policy Rule amended the New Source Performance Standards (NSPS) for the Oil and Natural Gas Industry that EPA promulgated in 2016 (81 FR 35824) (June 3, 2016) (“2016 NSPS”). Specifically, the 2020 Policy Rule rescinded all NSPS (regulating emissions of VOC and methane) from sources in the natural gas transmission and storage segment of the oil and gas industry and NSPS regulating methane from sources in the industry’s production and processing segments. The CRA resolution has the effect of reinstating the 2016 VOC and methane standards for the transmission and storage segment. The Hampshire Compressor Station is considered a natural gas compression facility and is potentially subject to this regulation. However, all equipment and processes potentially subject to this regulation were either installed prior to the applicability date or their installation was not classified as a modification or reconstruction. Therefore, this regulation does not apply.

3.3 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

Federal NESHAP regulations promulgated pursuant to Section 112 of the CAA are found in 40 CFR Parts 61 and 63. In general, NESHAP, or Maximum Achievable Control Technology (MACT) standards apply to major stationary sources of HAP emissions, defined as potential-to-emit of 10 tons or more per year of any single HAP or 25 tons or more per year of any combination of HAP and minor stationary sources of HAP emissions (thresholds less than a major source). The Hampshire Station is considered a major source of HAPs. Potentially applicable NESHAPs are discussed below.

3.3.1 40 CFR 61 Subpart M - National Emission Standard for Asbestos

The Hampshire Station may at times engage in demolition and/or renovation activities involving asbestos-containing materials (ACM). Therefore, the facility could be potentially subject to Subpart M, Standards for Demolition and Renovation (40 CFR 61.145). Procedures are in place to ensure the facility complies with these standards.



3.3.2 40 CFR 61 Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

This regulation is not applicable to the Hampshire Station because the provisions of this subpart apply to sources that are intended to operate in volatile hazardous air pollutant (VHAP) service. “In VHAP service means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight a volatile hazardous air pollutant (VHAP) as determined according to the provisions of 61.245(d).” The Hampshire Station does not have any sources that operate in VHAP service.

3.3.3 40 CFR 63 Subpart A – General Provisions

This regulation has general provisions that are referenced by other more specific NESHAP regulations.

3.3.4 40 CFR 63 Subpart HH - NESHAP from Oil and Natural Gas Production Facilities

This regulation is not applicable to the Hampshire Station because the facility is a transmission and storage facility and is not an oil and gas production facility as defined in this regulation.

3.3.5 40 CFR 63 Subpart HHH - NESHAP from Natural Gas Transmission and Storage Facilities

Subpart HHH establishes national emission limitations and operating limitations for natural gas transmission and storage facilities that are major sources of HAP emissions. The rule affects facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final user. The Hampshire Station does not operate an affected source (glycol dehydration unit). Therefore, the facility is not subject to this regulation.

3.3.6 40 CFR 63 Subpart YYYY – NESHAP for Stationary Combustion Turbines

NESHAP Subpart YYYY regulates stationary combustion turbines located at major sources of HAP emissions. The Solar Mars turbines (412 and 413) at the Hampshire Compressor Station meet the definition of existing stationary combustion turbines as specified in 40 CFR 63.6090(a)(1). Since the Solar Mars turbines (412 and 413) are existing stationary combustion turbines, they do not have to meet the requirements in Subpart YYYY or the General Provisions in Subpart A.

3.3.7 40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)

NESHAP Subpart ZZZZ regulates HAP emissions from existing, new, and reconstructed stationary compression ignition (CI) and spark ignition (SI), emergency and non-emergency, RICE located at major and area sources of HAP emissions. Engines (401-407) are existing spark ignited 2-stroke, lean burn engine rated more than 500 hp and located at a major source of HAP. These engines are exempt from this Subpart in accordance with 40 CFR 63.6590(b)(3)(i). The emergency generator (G3) is greater than



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500 hp, 4-stroke, rich burn, emergency generator installed in 1972. As an existing unit (built prior to June 12, 2006), it is required to comply with the requirements of 40 CFR 63.6640(f). The emergency generator (G4) is an existing 4-stroke, rich burn, emergency generator installed in 1991, less than 500 hp, located at a major source of HAPs, and is subject to Subpart ZZZZ requirements including work practices and the requirements of 40 CFR 63.6640(f). The Hampshire Station will continue to comply with the applicable requirements.

3.3.8 40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters

The Industrial/Commercial/Institutional Boilers and Process Heaters NESHAP for major sources was promulgated on March 21, 2011, and regulates HAP emissions from new and existing industrial, commercial, or institutional boilers and process heaters located at major sources of HAP emissions. This rule is applicable to the three natural gas fired tank heaters (H1-H3) at the Hampshire Compressor Station since the station is a major source of HAPs. Heaters H1, H2, H3 are considered existing (constructed in June 1988 before June 3, 2010), natural gas burning units and therefore are subject to a facility energy assessment, and the associated reporting and recordkeeping requirements. Additionally, the units are each rated at 0.125 MMBtu/hr and are subject to tune-ups every five (5) years, as listed in 40 CFR §63.7540(a)(12). The Hampshire Station will continue to comply with this rule as it applies to these emission units.

3.3.9 40 CFR 63 Subpart JJJJJJ - NESHAP for Industrial, Commercial and Institutional Boilers Area Sources

The Industrial/Commercial/Institutional Boilers and Process Heaters for area sources was promulgated on March 21, 2011, and regulates HAP emissions from industrial, commercial, or institutional boilers located at area sources of HAP emissions. The Hampshire Station is a major source of HAPs. Therefore, this regulation is not applicable to the Hampshire Compressor Station.

3.4 COMPLIANCE ASSURANCE MONITORING (CAM)

Enhanced monitoring requirements have been adopted into 40 CFR 64. The enhanced monitoring requirements are referred to as Compliance Assurance Monitoring (CAM). CAM is applicable to sources that have a potential to emit in excess of major source thresholds, not considering “tailpipe” emission controls, and use an “active” control device to achieve compliance with the emission limit. Combustion controls may be considered in evaluating the potential to emit.

An emission unit is subject to CAM if all of the following criteria are satisfied:

- the unit is located at a major source that is required to obtain a Part 70 or Part 71 permit;
- the unit is subject to an emission limitation or standard for a regulated air pollutant;
- the unit uses an active control device to achieve compliance with any such emission limit or standard, and



- the unit has potential pre-controlled emissions of the applicable air pollutant above the major source threshold.

The pre-controlled emissions from some of the units at the Hampshire Station have the potential to exceed the major source threshold for at least one pollutant. However, none of the emission units use add-on emission control equipment to reduce emissions and, thus, the station is exempt from the compliance assurance monitoring (CAM) requirements in 40 CFR 64.

3.5 CHEMICAL ACCIDENT PREVENTION PROVISIONS AND RISK MANAGEMENT PLAN

The Hampshire Station is not subject to the Chemical Accident Prevention Provisions of 40 CFR Subpart 68. Applicability to this regulation is based on the type and quantity of certain regulated substances stored at a facility, and the Hampshire Station does not exceed the applicability thresholds (40 CFR 68.10). The facility is not considered a stationary source under 40 CFR 68.3 (Chemical Accident Prevention) because it is regulated under 49 CFR 192, DOT.

3.6 ACID RAIN REGULATIONS

The Hampshire Station is not subject to the federal acid rain regulations found in 40 CFR Parts 72 through 77 because the Station does not own or operate an affected unit as defined in 40 CFR part 72.6.

3.7 MANDATORY GREENHOUSE GAS REPORTING 40 CFR 98 SUBPARTS C AND W

The Hampshire Station is subject to Subparts C (General Stationary Fuel Combustion Sources) and W (Petroleum and Natural Gas Systems) of the Mandatory Greenhouse Gas Reporting Rule. The annual report must be submitted no later than March 31 of each calendar year for GHG emissions in the previous calendar year. The Hampshire Station is subject to these requirements; however, there are no requirements in the rule for inclusion into the Title V permit program. Additionally, the Hampshire Station emits more than 25,000 metric tons of CO₂e per year and is, therefore, required to submit an annual report pursuant to 40 CFR 98.2.

3.8 STATE ONLY REGULATIONS 1200 TAPCR

3.8.1 1200-03-05 – Visible Emission Regulations

The 1200-03-05 rules of the Tennessee Air Pollution Control Regulations prohibit the discharge of visible emissions in excess of 20% for an aggregate of more than 5 minutes in an hour or 20 minutes in any 24-



hour period. This equipment at Hampshire Station will comply with this regulation by combusting only natural gas.

3.8.2 1200-03-06 – Non-process Emission Standards

The 1200-03-06 rules of the Tennessee Air Pollution Control Regulations specify allowable particulate emission rates from non-process sources. Particulate matter emitted shall not exceed the limitations established pursuant to TAPCR 1200-03-06-.01(7) and contained in the agreement letter dated July 24, 2019 from the permittee.

3.8.3 1200-03-07 – Process Emission Standards

The 1200-03-07 rules of the Tennessee Air Pollution Control Regulations specify allowable particulate emission rates from process sources. The equipment will comply with this regulation by combusting only natural gas. The regulation also requires the installation of the best equipment and technology for controlling gaseous emissions. The equipment combusts only natural gas, which limits emissions.

3.8.4 1200-03-14 – Control of Sulfur Dioxide Emissions

The 1200-03-14 rules of the Tennessee Air Pollution Control Regulations specify allowable sulfur dioxide emission rates. Sulfur dioxide emitted shall not exceed the limitations established pursuant to TAPCR 1200-03-14-.03(5) and contained in the agreement letter dated July 24, 2019 from the permittee.

3.8.5 1200-03-15 – Control of Air Emergency Episodes

CGT will comply with air pollution abatement strategies required by TAPCR 1200-03-15 and any other action recommended by the TDEC whenever the TDEC determines that an air pollution emergency exists and an air pollution alert is issued.

3.8.6 1200-03-26 – Annual Emissions Fee

TAPCR 1200-03-26 sets fee schedules for visible emission evaluation training and construction permits and annual emissions. Construction fees and annual emission fees are covered under TAPCR 1200-03-26.02 and shall be paid to the TDEC at the prescribed time period.

3.8.7 1200-03-27 – Nitrogen Oxides

This specifies reasonably available control technology (RACT) for NO_x emissions from stationary sources that are located in certain counties and that have the potential to emit 100 tpy or more NO_x before control. The Hampshire Compressor station is not subject to this rule. There are currently no NO_x SIP affected engines at the Hampshire Compressor Station. Therefore, the facility is not subject to the NO_x SIP Engine Call rule.



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TITLE V OPERATING PERMIT RENEWAL APPLICATION**

Appendix A

Appendix A

APPLICATION FORMS





TITLE V PERMIT APPLICATION INDEX OF AIR POLLUTION PERMIT APPLICATION FORMS

Section 1: Identification and Diagrams		
This application contains the following forms:	APC Form 1, Facility Identification	1
	APC Form 2, Operations and Flow Diagrams	1

Section 2: Emission Source Description Forms		
		Total number of this form
This application contains the following forms (one form for each incinerator, printing operation, fuel burning installation, etc.):	APC Form 3, Stack Identification	5
	APC Form 4, Fuel Burning Non-Process Equipment	1
	APC Form 5, Stationary Gas Turbines or Internal Combustion Engines	4
	APC Form 6, Storage Tanks	
	APC Form 7, Incinerators	
	APC Form 8, Printing Operations	
	APC Form 9, Painting and Coating Operations	
	APC Form 10, Miscellaneous Processes	
	APC Form 33, Stage I and Stage II Vapor Recovery Equipment	
	APC Form 34, Open Burning	

Section 3: Air Pollution Control System Forms		
		Total number of this form
This application contains the following forms (one form for each control system in use at the facility):	APC Form 11, Control Equipment - Miscellaneous	
	APC Form 13, Adsorbers	
	APC Form 14, Catalytic or Thermal Oxidation Equipment	
	APC Form 15, Cyclones/Settling Chambers	
	APC Form 17, Wet Collection Systems	
	APC Form 18, Baghouse/Fabric Filters	

(OVER)

Section 4: Compliance Demonstration Forms

		Total number of this form
This application contains the following forms (one form for each incinerator, printing operation, fuel burning installation, etc.):	APC Form 19, Compliance Certification - Monitoring and Reporting - Description of Methods for Determining Compliance	5
	APC Form 20, Continuous Emissions Monitoring	
	APC Form 21, Portable Monitors	
	APC Form 22, Control System Parameters or Operating Parameters of a Process	
	APC Form 23, Monitoring Maintenance Procedures	
	APC Form 24, Stack Testing	
	APC Form 25, Fuel Sampling and Analysis	
	APC Form 26, Record Keeping	5
	APC Form 27, Other Methods	
	APC Form 28, Emissions from Process Emissions Sources / Fuel Burning Installations / Incinerators	5
	APC Form 29, Emissions Summary for the Facility or for the Source Contained in This Application	1
	APC Form 30, Current Emissions Requirements and Status	5
	APC Form 31, Compliance Plan and Compliance Certification	1
	APC Form 32, Air Monitoring Network	

Section 5: Statement of Completeness and Certification of Compliance

I have reviewed this application in its entirety and to the best of my knowledge, and based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete. I have provided all the information that is necessary for compliance purposes and this application consists of _____ pages and they are numbered from page _____ to _____. The status of this facility's compliance with all applicable air pollution control requirements, including the enhanced monitoring and compliance certification requirements of the Federal Clean Air Act, is reported in this application along with the methods to be used for compliance demonstration.

Name and Title of Responsible Official

Telephone Number with Area Code

Stephen Miller, Manager, US Gas Operations South

219-365-7521

Signature of Responsible Official

Date of Application



02-27-2024

(For definition of responsible official, see instructions for APC Form 1)



TITLE V PERMIT APPLICATION FACILITY IDENTIFICATION

SITE INFORMATION				
1. Organization's legal name Columbia Gulf Transmission Company			For APC Use Only	APC company point no.
2. Site name (if different from legal name) Hampshire Compressor Station				APC Log/Permit no.
3. Site address (St./Rd./Hwy.) 4077 Booker Farm Road			NAICS or SIC Code SIC 4922	
City or distance to nearest town Hampshire, TN		Zip code 38461	County name Maury	
4. Site location (in Lat./Long)	Latitude 35.6427	Longitude -87.2638		
CONTACT INFORMATION (RESPONSIBLE OFFICIAL)				
5. Responsible official contact Stephen Miller			Phone number with area code 219-365-7521	
6. Mailing address (St./Rd./Hwy.) 4077 Booker Farm Road			Fax number with area code	
City Hampshire	State TN	Zip code 38461	Email address Stephen_Miller@tcenergy.com	
CONTACT INFORMATION (TECHNICAL)				
7. Principal technical contact Cynthia Hicks			Phone number with area code 616-610-2500	
8. Mailing address (St./Rd./Hwy.) 4193 134th Avenue			Fax number with area code	
City Hamilton	State MI	Zip code 49419	Email address Cynthia_Hicks@tcenergy.com	
CONTACT INFORMATION (BILLING)				
11. Billing contact Cynthia Hicks			Phone number with area code 616-610-2500	
12. Mailing address (St./Rd./Hwy.) 4193 134th Avenue			Fax number with area code	
City Hamilton	State MI	Zip code 49419	Email address Cynthia_Hicks@tcenergy.com	
TYPE OF PERMIT REQUESTED				
13. Permit requested for: Initial application to operate : ☐ Permit renewal to operate : ☒ Administrative permit amendment : ☐ Minor permit modification : ☐ Significant modification : ☐ Construction permit : ☐				

(OVER)

HAZARDOUS AIR POLLUTANTS, DESIGNATIONS, AND OTHER PERMITS ASSOCIATED WITH FACILITY

14. Is this facility subject to the provisions governing prevention of accidental releases of hazardous air contaminants contained in Chapter 1200-03-32 of the Tennessee Air Pollution Control regulations?

☐

Yes

☒

No

If the answer is Yes, are you in compliance with the provisions of Chapter 1200-03-32 of the Tennessee Air Pollution Control regulations?

☐

Yes

☐

No

15. If facility is located in an area designated as "Non-Attainment" or "Additional Control", indicate the pollutant(s) for the designation.

N/A

16. List all valid Air Pollution permits issued to the sources contained in this application [identify all permits with most recent permit numbers and emission source reference numbers listed on the permit(s)].

Title V Permit No. 573964 issued September 18, 2019, amended January 6, 2020

ESRNs: 60-0095-02, 60-0095-03, 60-0095-04, 60-0095-05, 60-0095-06

17. Page number :

Revision number:

Date of revision:



TITLE V PERMIT APPLICATION OPERATIONS AND FLOW DIAGRAMS

1. Please list, identify, and describe briefly process emission sources, fuel burning installations, and incinerators that are contained in this application. Please attach a flow diagram for this application.

Internal Combustion Compressor Engine 401, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 402, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 403, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 404, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 405, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 406, Clark TLA-6; 2-stroke lean burn
 Internal Combustion Compressor Engine 407, Clark TLA-6; 2-stroke lean burn
 Stationary Gas Compressor Turbine 412, Solar Mars 100-T15000S
 Stationary Gas Compressor Turbine 413, Solar Mars 100-T15000S
 Internal Combustion Engine/Generator G3, Waukesha L 5790; 4-stroke rich burn
 Internal Combustion Engine/Generator G4, Ford LSG-4231-6007-B; 4-stroke rich burn
 Natural Gas-Fired Tank Heater H1, Babcock & Wilcox, 12 x 6
 Natural Gas-Fired Tank Heater H2, Babcock & Wilcox, 12 x 6
 Natural Gas-Fired Tank Heater H2, Babcock & Wilcox, 12 x 6

The flow diagram for the Hampshire Station is included in Appendix B of the renewal application.



2. List all insignificant activities which are exempted because of size or production rate and cite the applicable regulations.

A0001, A0002: 5,000 gallon Lube Oil Tanks; 1200-03-09-.04(5)(a)4(i)
 A0003: 5,000 gallon Glycol Tank; 1200-03-09-.04(5)(a)4(i)
 A0004: 1,144 gallon Engine Oil Recovery Tank; 1200-03-09-.04(5)(a)4(i)
 A0005: 700 gallon Engine Coolant Recovery Tank; 1200-03-09-.04(5)(a)4(i)
 A0008: 8,800 gallon Oil/Water Mixture Tank; 1200-03-09-.04(5)(a)4(i)
 A0009: 8,800 gallon Used Oil Tank; 1200-03-09-.04(5)(a)4(i)
 A0010: 8,800 gallon Wastewater Tank; 1200-03-09-.04(5)(a)4(i)
 FUG: Fugitive Emissions (includes fugitives from multiple process units); 1200-03-09-.04(5)(a)4(i)

3. Are there any storage piles?

YES _____ NO X

4. List the states that are within 50 miles of your facility.

Alabama

5. Page number: _____ Revision Number: _____ Date of Revision: _____

CN-1400



TITLE V PERMIT APPLICATION STACK IDENTIFICATION

GENERAL IDENTIFICATION AND DESCRIPTION	
1. Facility name: Hampshire Compressor Station	
2. Emission source (identify): Natural Gas-Fired Stationary Gas Compressor Turbines (412, 413)	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): E12, E13	
4. Stack height above grade in feet: 43	
5. Velocity (data at exit conditions): 54 _____ (Actual feet per second)	6. Inside dimensions at outlet in feet: 7.6 x 7.6
7. Exhaust flowrate at exit conditions (ACFM): 181,231	8. Flow rate at standard conditions (DSCFM): 65,802
9. Exhaust temperature: 910 _____ Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): 5.8 _____ Percent _____ Grains per dry standard cubic foot (gr./dscf.)
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time (<u>for stacks subject to diffusion equation only</u>): N/A _____ (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO ₂ , NO _x , etc.)? N/A	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack? _____ Yes X _____ No If yes, describe the conditions which require its use & complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.	
14. Page number: _____ Revision Number: _____ Date of Revision: _____	



TITLE V PERMIT APPLICATION STACK IDENTIFICATION

GENERAL IDENTIFICATION AND DESCRIPTION	
1. Facility name: Hampshire Compressor Station	
2. Emission source (identify): Natural Gas-Fired Internal Combustion Engine/Generator, 4 Stroke, Rich Burn (G3)	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): G3	
4. Stack height above grade in feet: 23	
5. Velocity (data at exit conditions): 123 _____ (Actual feet per second)	6. Inside dimensions at outlet in feet: 0.67
7. Exhaust flowrate at exit conditions (ACFM): 2,851	8. Flow rate at standard conditions (DSCFM): 922
9. Exhaust temperature: 900 _____ Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): 17 _____ Percent _____ Grains per dry standard cubic foot (gr./dscf.)
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time (<u>for stacks subject to diffusion equation only</u>): N/A _____ (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO ₂ , NO _x , etc.)? N/A	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack? _____ Yes X _____ No If yes, describe the conditions which require its use & complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.	
14. Page number: _____ Revision Number: _____ Date of Revision: _____	



TITLE V PERMIT APPLICATION STACK IDENTIFICATION

GENERAL IDENTIFICATION AND DESCRIPTION	
1. Facility name: Hampshire Compressor Station	
2. Emission source (identify): Natural Gas-Fired Internal Combustion Engine/Generator, 4 Stroke, Rich Burn (G4)	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): G4	
4. Stack height above grade in feet: 11	
5. Velocity (data at exit conditions): 85 _____ (Actual feet per second)	6. Inside dimensions at outlet in feet: 0.25
7. Exhaust flowrate at exit conditions (ACFM):	8. Flow rate at standard conditions (DSCFM):
9. Exhaust temperature: 1,000 _____ Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): Grains per dry standard cubic foot (gr./dscf.) _____ Percent
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time (<u>for stacks subject to diffusion equation only</u>): N/A _____ (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO ₂ , NO _x , etc.)? N/A	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack? _____ Yes X _____ No If yes, describe the conditions which require its use & complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.	
14. Page number: Revision Number: Date of Revision:	



TITLE V PERMIT APPLICATION STACK IDENTIFICATION

GENERAL IDENTIFICATION AND DESCRIPTION	
1. Facility name: Hampshire Compressor Station	
2. Emission source (identify): H1, H2, H3 (Natural Gas-Fired Tank Heaters)	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): H1, H2, H3	
4. Stack height above grade in feet: 20	
5. Velocity (data at exit conditions): <u>Not Available</u> (Actual feet per second)	6. Inside dimensions at outlet in feet: 0.35
7. Exhaust flowrate at exit conditions (ACFM): Not Available	8. Flow rate at standard conditions (DSCFM): Not Available
9. Exhaust temperature: 95 _____ Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): _____ Percent 20 _____ Grains per dry standard cubic foot (gr./dscf)
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time (<u>for stacks subject to diffusion equation only</u>): _____ (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO ₂ , NO _x , etc.)? N/A	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack? _____ Yes X _____ No If yes, describe the conditions which require its use & complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.	
14. Page number: Revision Number: Date of Revision:	



TITLE V PERMIT APPLICATION FUEL BURNING NON-PROCESS EQUIPMENT

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station				
2. Stack ID or flow diagram point identification (s): H1, H2, H3				
FUEL BURNING EQUIPMENT DESCRIPTION				
3. List all fuel burning equipment that is at this fuel burning installation (please complete an APC 4 form for each piece of fuel burning equipment). H1 Natural Gas-Fired Tank Heater, 0.125 MMBtu/hr H2 Natural Gas-Fired Tank Heater, 0.125 MMBtu/hr H3 Natural Gas-Fired Tank Heater, 0.125 MMBtu/hr				
4. Fuel burning equipment identification number: H1, H2, H3				
5. Fuel burning equipment description: Natural Gas-Fired Tank Heaters, 0.125 MMBtu/hr				
6. Year of installation or last modification of fuel burning equipment. 06/1998				
7. Furnace type:			8. Manufacturer model number (if available):	
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>3944351.88</u> UTM Horizontal: <u>476117.52</u>				
10. Normal operating schedule: <u>24</u> Hrs./Day <u>7</u> Days/Wk. <u>365</u> Days/Yr.				
FUELS, CONTROLS, AND MONITORING DESCRIPTION				
11. Maximum rated heat input capacity (in million BTU/Hour) 0.125			12. If wood is used as a fuel, specify the amount of wood used as a fraction of total heat input.	
13. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas			
Actual yearly consumption	1.1 MMscf/yr			
14. If emissions from this fuel burning equipment are controlled for compliance, please specify the type of control:				
15. If emissions from this fuel burning equipment are monitored for compliance, please specify the type of monitoring:				
16. Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (please attach a separate sheet if necessary).				
17. Page number:		Revision Number:		Date of Revision:



TITLE V PERMIT APPLICATION STATIONARY GAS TURBINE OR INTERNAL COMBUSTION ENGINE

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station				
2. Stack ID or flow diagram point identification (s): 401-407 (E01-E07)				
GAS TURBINE OR INTERNAL COMBUSTION ENGINE DESCRIPTION				
3. List all gas turbines and internal combustion engines at this facility on a separate sheet, and please complete an APC 5 form for each piece of equipment. Engine IDs: 401, 402, 403, 404, 405, 406, 407; Turbine IDs: 412, 413; Generator IDs: G3, G4				
4. Manufacturer and model number: Clark TLA-6				
5. Equipment description: Clark TLA-6 Natural Gas-Fired Reciprocating Compressor Engines, 2 Stroke, Lean Burn				
6. Date of installation or last modification of equipment: 1954-1957				
7. Rated heat input capacity (in million BTU/Hour) and rated horsepower: <u>16.8 MMBtu/hr and 2,000 hp</u> State which heating value was utilized: <u>X</u> Higher heating value <u> </u> Lower heating value		8. If equipment is a gas turbine, list type: <u> </u> Simple cycle <u> </u> Regenerative cycle <u> </u> Combined cycle		
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>3944351.88</u> UTM Horizontal: <u>476117.52</u>				
10. Normal operating schedule: <u>24</u> Hrs./Day <u>7</u> Days/Wk. <u>365</u> Days/Yr.				
FUEL DESCRIPTION				
11. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas	N/A	N/A	N/A
Actual yearly consumption	~8-93 MMscf/yr (2023)	N/A	N/A	N/A
12. (For NSPS turbines only) Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the unit:				
13. Page number: Revision Number: Date of Revision:				



TITLE V PERMIT APPLICATION STATIONARY GAS TURBINE OR INTERNAL COMBUSTION ENGINE

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station				
2. Stack ID or flow diagram point identification (s): 412, 413 (E12, E13)				
GAS TURBINE OR INTERNAL COMBUSTION ENGINE DESCRIPTION				
3. List all gas turbines and internal combustion engines at this facility on a separate sheet, and please complete an APC 5 form for each piece of equipment. Engine IDs: 401, 402, 403, 404, 405, 406, 407; Turbine IDs: 412, 413; Generator IDs: G3, G4				
4. Manufacturer and model number: Solar Mars 100-T15000S				
5. Equipment description: Solar Mars 100 Natural Gas-Fired Stationary Gas Compressor Turbine				
6. Date of installation or last modification of equipment: 1998 (412), 2000 (413)				
7. Rated heat input capacity (in million BTU/Hour) and rated horsepower: <u>136.5 MMBtu/hr and 17,578 hp</u> State which heating value was utilized: <u>X</u> Higher heating value Lower heating value		8. If equipment is a gas turbine, list type: <u>X</u> Simple cycle Regenerative cycle Combined cycle		
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>3944351.88</u> UTM Horizontal: <u>476117.52</u>				
10. Normal operating schedule: <u>24</u> Hrs./Day <u>7</u> Days/Wk. <u>365</u> Days/Yr.				
FUEL DESCRIPTION				
11. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas	N/A	N/A	N/A
Actual yearly consumption	681-800 MMscf/yr 2023	N/A	N/A	N/A
12. (For NSPS turbines only) Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the unit: 10.9 KJ/w-hr				
13. Page number:		Revision Number:		Date of Revision:



TITLE V PERMIT APPLICATION STATIONARY GAS TURBINE OR INTERNAL COMBUSTION ENGINE

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station				
2. Stack ID or flow diagram point identification (s): G3				
GAS TURBINE OR INTERNAL COMBUSTION ENGINE DESCRIPTION				
3. List all gas turbines and internal combustion engines at this facility on a separate sheet, and please complete an APC 5 form for each piece of equipment. Engine IDs: 401, 402, 403, 404, 405, 406, 407; Turbine IDs: 412, 413; Generator IDs: G3, G4				
4. Manufacturer and model number: Waukesha L5790G				
5. Equipment description: Natural Gas-Fired Internal Combustion Engine/Generator, 4 Stroke, Rich Burn				
6. Date of installation or last modification of equipment: 1972				
7. Rated heat input capacity (in million BTU/Hour) and rated horsepower: <u>7.6 MMBtu/hr and 720 hp</u> State which heating value was utilized: <u>X</u> Higher heating value <u> </u> Lower heating value		8. If equipment is a gas turbine, list type: <u> </u> Simple cycle <u> </u> Regenerative cycle <u> </u> Combined cycle		
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>3944351.88</u> UTM Horizontal: <u>476117.52</u>				
10. Normal operating schedule: <u>24</u> Hrs./Day <u>7</u> Days/Wk. <u>365</u> Days/Yr.				
FUEL DESCRIPTION				
11. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas	N/A	N/A	N/A
Actual yearly consumption	0.043 MMscf/yr (2023)	N/A	N/A	N/A
12. (For NSPS turbines only) Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the unit:				
13. Page number: Revision Number: Date of Revision:				



TITLE V PERMIT APPLICATION STATIONARY GAS TURBINE OR INTERNAL COMBUSTION ENGINE

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station				
2. Stack ID or flow diagram point identification (s): G4				
GAS TURBINE OR INTERNAL COMBUSTION ENGINE DESCRIPTION				
3. List all gas turbines and internal combustion engines at this facility on a separate sheet, and please complete an APC 5 form for each piece of equipment. Engine IDs: 401, 402, 403, 404, 405, 406, 407; Turbine IDs: 412, 413; Generator IDs: G3, G4				
4. Manufacturer and model number: Ford LSG-4231				
5. Equipment description: Natural Gas-Fired Internal Combustion Engine/Generator, 4 Stroke, Rich Burn				
6. Date of installation or last modification of equipment: 1991				
7. Rated heat input capacity (in million BTU/Hour) and rated horsepower: <u>0.54 MMBtu/hr and 46 hp</u> State which heating value was utilized: <u>X</u> Higher heating value <u> </u> Lower heating value		8. If equipment is a gas turbine, list type: <u> </u> Simple cycle <u> </u> Regenerative cycle <u> </u> Combined cycle		
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>3944351.88</u> UTM Horizontal: <u>476117.52</u>				
10. Normal operating schedule: <u>24</u> Hrs./Day <u>7</u> Days/Wk. <u>365</u> Days/Yr.				
FUEL DESCRIPTION				
11. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas	N/A	N/A	N/A
Actual yearly consumption	0.0 MMscf/yr (2023)	N/A	N/A	N/A
12. (For NSPS turbines only) Manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the unit:				
13. Page number: Revision Number: Date of Revision:				



TITLE V PERMIT APPLICATION
COMPLIANCE CERTIFICATION - MONITORING AND REPORTING
DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: **Hampshire Compressor Station**
2. Process emission source, fuel burning installation, or incinerator (identify): **401-407 (Natural Gas-Fired Reciprocating Compressor Engines)**
3. Stack ID or flow diagram point identification(s): **E01-E07**

METHODS OF DETERMINING COMPLIANCE

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)

- ☐ Continuous Emission Monitoring (CEM) - APC 20
 Pollutant(s): _____
- ☐ Emission Monitoring Using Portable Monitors - APC 21
 Pollutant(s): _____
- ☐ Monitoring Control System Parameters or Operating Parameters of a Process - APC 22
 Pollutant(s): _____
- ☐ Monitoring Maintenance Procedures - APC 23
 Pollutant(s): _____
- ☐ Stack Testing - APC 24
 Pollutant(s): _____
- ☐ Fuel Sampling & Analysis (FSA) - APC 25
 Pollutant(s): _____
- ☒ Recordkeeping - APC 26
 Pollutant(s): **Annual Certification - only natural gas used as fuel**
- ☐ Other (please describe) - APC 27
 Pollutant(s): _____

5. Compliance certification reports will be submitted to the Division according to the following schedule:

Start date: **Per Existing Title V Operating Permit**

And every **365** days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:

Start date: **Per Existing Title V Operating Permit**

And every **365** days thereafter.

7. Page number: _____ Revision number: _____ Date of revision: _____



TITLE V PERMIT APPLICATION
COMPLIANCE CERTIFICATION - MONITORING AND REPORTING
DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station
2. Process emission source, fuel burning installation, or incinerator (identify): 412-413 (Natural Gas-Fired Compressor Turbines)
3. Stack ID or flow diagram point identification(s): E12, E13

METHODS OF DETERMINING COMPLIANCE

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
 - ☐ Continuous Emission Monitoring (CEM) - APC 20
Pollutant(s): _____
 - ☐ Emission Monitoring Using Portable Monitors - APC 21
Pollutant(s): _____
 - ☐ Monitoring Control System Parameters or Operating Parameters of a Process - APC 22
Pollutant(s): _____
 - ☐ Monitoring Maintenance Procedures - APC 23
Pollutant(s): _____
 - ☐ Stack Testing - APC 24
Pollutant(s): _____
 - ☐ Fuel Sampling & Analysis (FSA) - APC 25
Pollutant(s): _____
 - ☒ Recordkeeping - APC 26
Pollutant(s): NSPS GG Tariff sheet; only natural gas used as fuel
 - ☐ Other (please describe) - APC 27
Pollutant(s): _____

5. Compliance certification reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 365 days thereafter.

7. Page number: _____ Revision number: _____ Date of revision: _____



TITLE V PERMIT APPLICATION
COMPLIANCE CERTIFICATION - MONITORING AND REPORTING
DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station
2. Process emission source, fuel burning installation, or incinerator (identify): G3 (Natural Gas-Fired Emergency Generator)
3. Stack ID or flow diagram point identification(s): G3

METHODS OF DETERMINING COMPLIANCE

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
 - ☐ Continuous Emission Monitoring (CEM) - APC 20
Pollutant(s): _____
 - ☐ Emission Monitoring Using Portable Monitors - APC 21
Pollutant(s): _____
 - ☐ Monitoring Control System Parameters or Operating Parameters of a Process - APC 22
Pollutant(s): _____
 - ☐ Monitoring Maintenance Procedures - APC 23
Pollutant(s): _____
 - ☐ Stack Testing - APC 24
Pollutant(s): _____
 - ☐ Fuel Sampling & Analysis (FSA) - APC 25
Pollutant(s): _____
 - ☒ Recordkeeping - APC 26
Pollutant(s): NESHAP ZZZZ: operating hours and maintenance
 - ☐ Other (please describe) - APC 27
Pollutant(s): _____

5. Compliance certification reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 180 days thereafter.

7. Page number: _____ Revision number: _____ Date of revision: _____



TITLE V PERMIT APPLICATION
COMPLIANCE CERTIFICATION - MONITORING AND REPORTING
DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station
2. Process emission source, fuel burning installation, or incinerator (identify): G4 (Natural Gas-Fired Emergency Generator)
3. Stack ID or flow diagram point identification(s): G4

METHODS OF DETERMINING COMPLIANCE

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
 - ☐ Continuous Emission Monitoring (CEM) - APC 20
Pollutant(s): _____
 - ☐ Emission Monitoring Using Portable Monitors - APC 21
Pollutant(s): _____
 - ☐ Monitoring Control System Parameters or Operating Parameters of a Process - APC 22
Pollutant(s): _____
 - ☐ Monitoring Maintenance Procedures - APC 23
Pollutant(s): _____
 - ☐ Stack Testing - APC 24
Pollutant(s): _____
 - ☐ Fuel Sampling & Analysis (FSA) - APC 25
Pollutant(s): _____
 - ☒ Recordkeeping - APC 26
Pollutant(s): NESHAP ZZZZ: operating hours, work practices, and maintenance
 - ☐ Other (please describe) - APC 27
Pollutant(s): _____

5. Compliance certification reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:
 Start date: Per Existing Title V Operating Permit
 And every 180 days thereafter.

7. Page number: _____ Revision number: _____ Date of revision: _____



TITLE V PERMIT APPLICATION
COMPLIANCE CERTIFICATION - MONITORING AND REPORTING
DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station
2. Process emission source, fuel burning installation, or incinerator (identify): H1-H3 (Natural Gas-Fired Tank Heaters)
3. Stack ID or flow diagram point identification(s): H1-H3

METHODS OF DETERMINING COMPLIANCE

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)

- ☐ Continuous Emission Monitoring (CEM) - APC 20
 Pollutant(s): _____
- ☐ Emission Monitoring Using Portable Monitors - APC 21
 Pollutant(s): _____
- ☐ Monitoring Control System Parameters or Operating Parameters of a Process - APC 22
 Pollutant(s): _____
- ☐ Monitoring Maintenance Procedures - APC 23
 Pollutant(s): _____
- ☐ Stack Testing - APC 24
 Pollutant(s): _____
- ☐ Fuel Sampling & Analysis (FSA) - APC 25
 Pollutant(s): _____
- ☒ Recordkeeping - APC 26
 Pollutant(s): Records of tune-ups and compliance reports
- ☐ Other (please describe) - APC 27
 Pollutant(s): _____

5. Compliance certification reports will be submitted to the Division according to the following schedule:

Start date: Per Existing Title V Operating Permit

And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:

Start date: Per Existing Title V Operating Permit

And every 180 days thereafter.

7. Page number: _____ Revision number: _____ Date of revision: _____

State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243
Telephone: (615) 532-0554



APC 26

TITLE V PERMIT APPLICATION
COMPLIANCE DEMONSTRATION BY RECORDKEEPING

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): E01-E07
---	---

3. Emission source (identify): 401-407 (Natural Gas-Fired Reciprocating Compressor Engines)
--

MONITORING AND RECORDKEEPING DESCRIPTION

4. Pollutant(s) or parameter being monitored: Fuel type
--

5. Material or parameter being monitored and recorded: Fuel type

6. Method of monitoring and recording: Annual Certification - only natural gas used as fuel
--

7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Annually

8. Page number:	Revision number:	Date of revision:
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State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243
Telephone: (615) 532-0554



APC 26

TITLE V PERMIT APPLICATION
COMPLIANCE DEMONSTRATION BY RECORDKEEPING

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): E12, E13
---	--

3. Emission source (identify): 412-413 (Natural Gas-Fired Compressor Turbines)

MONITORING AND RECORDKEEPING DESCRIPTION

4. Pollutant(s) or parameter being monitored: SO ₂
--

5. Material or parameter being monitored and recorded: Natural gas sulfur content
--

6. Method of monitoring and recording: Maintain current and valid documentation (tariff sheet) specifying the natural gas consumed by the turbine has a maximum total sulfur content of less than or equal to 8.6 gr/100 scf.
--

7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Continuous

8. Page number:	Revision number:	Date of revision:
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TITLE V PERMIT APPLICATION
COMPLIANCE DEMONSTRATION BY RECORDKEEPING

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): G3
---	--

3. Emission source (identify): G3 (Natural Gas-Fired Emergency Generator)
--

MONITORING AND RECORDKEEPING DESCRIPTION

4. Pollutant(s) or parameter being monitored: Operating Hours
--

5. Material or parameter being monitored and recorded: Hours of operation and maintenance performed.

6. Method of monitoring and recording: Monitor the emergency generator operating hours with a non-resettable hour meter. Keep records of maintenance performed on the emergency generator and the hours of operation as required under NESHAP ZZZZ.

7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Continuous

8. Page number:	Revision number:	Date of revision:
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TITLE V PERMIT APPLICATION COMPLIANCE DEMONSTRATION BY RECORDKEEPING

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): G4
3. Emission source (identify): G4 (Natural Gas-Fired Emergency Generator)	

MONITORING AND RECORDKEEPING DESCRIPTION

4. Pollutant(s) or parameter being monitored: Operating Hours
5. Material or parameter being monitored and recorded: Hours of operation, work practices, and maintenance performed.
6. Method of monitoring and recording: Monitor the emergency generator operating hours with a non-resettable hour meter. Keep records of notifications, maintenance performed on the emergency generator, and the hours of operation as required under NESHAP ZZZZ. Records of required NESHAP ZZZZ work practices: a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Continuous

8. Page number:	Revision number:	Date of revision:
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TITLE V PERMIT APPLICATION
COMPLIANCE DEMONSTRATION BY RECORDKEEPING

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): H1-H3
3. Emission source (identify): Natural Gas-Fired Tank Heaters	

MONITORING AND RECORDKEEPING DESCRIPTION

4. Pollutant(s) or parameter being monitored: Keep records of the tune-ups and compliance reports required under 40 CFR Part 63, Subpart DDDDD (required every 5 years).
5. Material or parameter being monitored and recorded: Tune-ups and compliance reports
6. Method of monitoring and recording: Keep records of the tune-ups and compliance reports required under 40 CFR Part 63, Subpart DDDDD (required every 5 years).
7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Every 5 years

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TITLE V PERMIT APPLICATION

EMISSIONS FROM PROCESS EMISSION SOURCE / FUEL BURNING INSTALLATION / INCINERATOR

GENERAL IDENTIFICATION AND DESCRIPTION				
1. Facility name: Hampshire Compressor Station		2. Stack ID or flow diagram point identification(s): E01-E07		
3. Process emission source / Fuel burning installation / Incinerator (identify): Natural Gas-Fired Reciprocating Compressor Engines (401-407) Source 03				
EMISSIONS SUMMARY TABLE – CRITERIA AND FUGITIVE EMISSIONS				
4. Complete the following <u>emissions summary for regulated air pollutants</u> . Fugitive emissions shall be included. Attach calculations and emission factor references.				
Air Pollutant	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Particulate Matter (TSP)	3.55		0.21-2.45	
(Fugitive Emissions)				
Sulfur Dioxide	0.04		0.00-0.04	
(Fugitive Emissions)				
Volatile Organic Compounds	8.83		0.53-6.09	
(Fugitive Emissions)				
Carbon Monoxide	40.91		2.44-28.14	
(Fugitive Emissions)				
Lead	NA			
(Fugitive Emissions)				
Nitrogen Oxides	239.15		14.24-164.51	
(Fugitive Emissions)				
Total Reduced Sulfur	NA			
(Fugitive Emissions)				
Mercury	NA			
(Fugitive Emissions)				
(Continued on next page)				

EMISSIONS SUMMARY TABLE – FUGITIVE HAZARDOUS AIR POLLUTANTS

Air Pollutant & CAS

See Appendix C

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TITLE V PERMIT APPLICATION

EMISSIONS FROM PROCESS EMISSION SOURCE / FUEL BURNING INSTALLATION / INCINERATOR

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): E12-E13
3. Process emission source / Fuel burning installation / Incinerator (identify): Natural Gas-Fired Compressor Turbines (412-413) Source 02, 05	

EMISSIONS SUMMARY TABLE – CRITERIA AND FUGITIVE EMISSIONS

4. Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Particulate Matter (TSP)	3.95		2.32-2.74	
(Fugitive Emissions)				
Sulfur Dioxide	0.43		0.24-0.29	
(Fugitive Emissions)				
Volatile Organic Compounds	2.45		1.09-1.29	
(Fugitive Emissions)				
Carbon Monoxide	85.38		50.42-57.62	
(Fugitive Emissions)				
Lead	NA			
(Fugitive Emissions)				
Nitrogen Oxides	92.44		68.16-78.61	
(Fugitive Emissions)				
Total Reduced Sulfur	NA			
(Fugitive Emissions)				
Mercury	NA			
(Fugitive Emissions)				

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AIR POLLUTANT	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Asbestos	NA			
(Fugitive Emissions)				
Beryllium	NA			
(Fugitive Emissions)				
Vinyl Chloride	NA			
(Fugitive Emissions)				
Fluorides	NA			
(Fugitive Emissions)				
Gaseous Fluorides	NA			
(Fugitive Emissions)				
Greenhouse Gases in CO ₂ Equivalents	NA			

EMISSIONS SUMMARY TABLE – FUGITIVE HAZARDOUS AIR POLLUTANTS

5. Complete the following emissions summary for regulated air pollutants that are hazardous air pollutant(s). Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant & CAS	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
See Appendix C				

6. Page number: Revision number: Date of revision



TITLE V PERMIT APPLICATION

EMISSIONS FROM PROCESS EMISSION SOURCE / FUEL BURNING INSTALLATION / INCINERATOR

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): G3
3. Process emission source / Fuel burning installation / Incinerator (identify): Natural Gas-Fired Emergency Generator (G3) Source 04	

EMISSIONS SUMMARY TABLE – CRITERIA AND FUGITIVE EMISSIONS

4. Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Particulate Matter (TSP)	0.04		0.00	
(Fugitive Emissions)				
Sulfur Dioxide	0.001		0.00	
(Fugitive Emissions)				
Volatile Organic Compounds	0.06		0.00	
(Fugitive Emissions)				
Carbon Monoxide	7.10		0.10	
(Fugitive Emissions)				
Lead	NA			
(Fugitive Emissions)				
Nitrogen Oxides	4.22		0.06	
(Fugitive Emissions)				
Total Reduced Sulfur	NA			
(Fugitive Emissions)				
Mercury	NA			
(Fugitive Emissions)				

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AIR POLLUTANT	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Asbestos	NA			
(Fugitive Emissions)				
Beryllium	NA			
(Fugitive Emissions)				
Vinyl Chloride	NA			
(Fugitive Emissions)				
Fluorides	NA			
(Fugitive Emissions)				
Gaseous Fluorides	NA			
(Fugitive Emissions)				
Greenhouse Gases in CO ₂ Equivalents	NA			

EMISSIONS SUMMARY TABLE – FUGITIVE HAZARDOUS AIR POLLUTANTS

5. Complete the following emissions summary for regulated air pollutants that are hazardous air pollutant(s). Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant & CAS	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
See Appendix C				

6. Page number: Revision number: Date of revision



TITLE V PERMIT APPLICATION

EMISSIONS FROM PROCESS EMISSION SOURCE / FUEL BURNING INSTALLATION / INCINERATOR

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): G4
3. Process emission source / Fuel burning installation / Incinerator (identify): Natural Gas-Fired Emergency Generator (G4) Source 04	

EMISSIONS SUMMARY TABLE – CRITERIA AND FUGITIVE EMISSIONS

4. Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Particulate Matter (TSP)	0.003		0.00	
(Fugitive Emissions)				
Sulfur Dioxide	8.70E-05		0.00	
(Fugitive Emissions)				
Volatile Organic Compounds	0.004		0.00	
(Fugitive Emissions)				
Carbon Monoxide	0.50		0.00	
(Fugitive Emissions)				
Lead	NA			
(Fugitive Emissions)				
Nitrogen Oxides	0.30		0.00	
(Fugitive Emissions)				
Total Reduced Sulfur	NA			
(Fugitive Emissions)				
Mercury	NA			
(Fugitive Emissions)				

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AIR POLLUTANT	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Asbestos	NA			
(Fugitive Emissions)				
Beryllium	NA			
(Fugitive Emissions)				
Vinyl Chloride	NA			
(Fugitive Emissions)				
Fluorides	NA			
(Fugitive Emissions)				
Gaseous Fluorides	NA			
(Fugitive Emissions)				
Greenhouse Gases in CO ₂ Equivalents	NA			

EMISSIONS SUMMARY TABLE – FUGITIVE HAZARDOUS AIR POLLUTANTS

5. Complete the following emissions summary for regulated air pollutants that are hazardous air pollutant(s). Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant & CAS	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
See Appendix C				

6. Page number: Revision number: Date of revision



TITLE V PERMIT APPLICATION

EMISSIONS FROM PROCESS EMISSION SOURCE / FUEL BURNING INSTALLATION / INCINERATOR

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station	2. Stack ID or flow diagram point identification(s): H1-H3
3. Process emission source / Fuel burning installation / Incinerator (identify): Natural Gas-Fired Tank Heaters Souce 06	

EMISSIONS SUMMARY TABLE – CRITERIA AND FUGITIVE EMISSIONS

4. Complete the following emissions summary for regulated air pollutants. Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Particulate Matter (TSP)	0.004		0.002	
(Fugitive Emissions)				
Sulfur Dioxide	0.0003		0.0002	
(Fugitive Emissions)				
Volatile Organic Compounds	0.003		0.001	
(Fugitive Emissions)				
Carbon Monoxide	0.05		0.02	
(Fugitive Emissions)				
Lead	NA			
(Fugitive Emissions)				
Nitrogen Oxides	0.05		0.03	
(Fugitive Emissions)				
Total Reduced Sulfur	NA			
(Fugitive Emissions)				
Mercury	NA			
(Fugitive Emissions)				

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AIR POLLUTANT	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
Asbestos	NA			
(Fugitive Emissions)				
Beryllium	NA			
(Fugitive Emissions)				
Vinyl Chloride	NA			
(Fugitive Emissions)				
Fluorides	NA			
(Fugitive Emissions)				
Gaseous Fluorides	NA			
(Fugitive Emissions)				
Greenhouse Gases in CO ₂ Equivalents	NA			

EMISSIONS SUMMARY TABLE – FUGITIVE HAZARDOUS AIR POLLUTANTS

5. Complete the following emissions summary for regulated air pollutants that are hazardous air pollutant(s). Fugitive emissions shall be included. Attach calculations and emission factor references.

Air Pollutant & CAS	Maximum Allowable Emissions		Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour - Item 7, APC 30)	Tons per Year	Reserved for State use (Pounds per Hour - Item 8, APC 30)
See Appendix C				

6. Page number: Revision number: Date of revision



TITLE V PERMIT APPLICATION EMISSION SUMMARY FOR THE FACILITY OR FOR THE SOURCES CONTAINED IN THIS APPLICATION

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name: Hampshire Compressor Station

EMISSIONS SUMMARY TABLE – CRITERIA AND SELECTED POLLUTANTS

2. Complete the following emissions summary for regulated air pollutants at this facility or for the sources contained in this application.

Air Pollutant	Summary of Maximum Allowable Emissions		Summary of Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour- Item 4, APC 28)	Tons per Year	Reserved for State use (Pounds per Hour- Item 4, APC 28)
Particulate Matter (TSP)	32.83		15.89	
Sulfur Dioxide	1.2		0.69	
Volatile Organic Compounds	66.79		29.32	
Carbon Monoxide	514.10		232.77	
Lead	N/A			
Nitrogen Oxides	1864.17		875.01	
Total Reduced Sulfur	N/A			
Mercury	N/A			
Asbestos	N/A			
Beryllium	N/A			
Vinyl Chlorides	N/A			
Fluorides	N/A			
Gaseous Fluorides	N/A			
Greenhouse Gases in CO ₂ Equivalents	N/A			

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3. Complete the following emissions summary for regulated air pollutants that are hazardous air pollutant(s) at this facility, or for the sources contained in this application.

4. Page number: _____ Revision number: _____ Date of revision: _____



**TITLE V PERMIT APPLICATION
CURRENT EMISSIONS REQUIREMENTS AND STATUS**

GENERAL IDENTIFICATION AND DESCRIPTION								
1. Facility name:		2. Emission source number						
Hampshire Compressor Station		E01-E07						
3. Describe the process emission source / fuel burning installation / incinerator.								
Clark TLA-6 Two-Stroke Lean-Burn Compressor Engines (401-407)								
EMISSIONS AND REQUIREMENTS								
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status (In/Out)			
401-407	Opacity	Permit 573964 Condition E3-1	20%	20%	In			
401-407	PM	Permit 573964 Condition E5-3	0.60 lb/MMBtu	0.60 lb/MMBtu	In			
401-407	PM	Permit 573964 Condition E5-3	7.63 lb/hr	7.63 lb/hr	In			
401-407	SO2	Permit 573964 Condition E5-4	1,000 ppm	1,000 ppm	In			
10. Other applicable requirements (new requirements that apply to this source during the term of this permit)								
11. Page number:		Revision number:		Date of revision:				



**TITLE V PERMIT APPLICATION
CURRENT EMISSIONS REQUIREMENTS AND STATUS**

GENERAL IDENTIFICATION AND DESCRIPTION								
1. Facility name: Hampshire Compressor Station					2. Emission source number E12			
3. Describe the process emission source / fuel burning installation / incinerator. Solar Mars 100-T15000S Stationary Gas Compressor Turbine (412)								
EMISSIONS AND REQUIREMENTS								
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status (In/Out)			
412	Opacity	Permit 573964 Condition E3-1	20%	20%	In			
412	Sulfur content	Permit 573964 Condition E7-2	8.6 grains/100 scf	8.6 grains/100 scf	In			
412	SO ₂	Permit 573964 Condition E7-4 (AA1)	3.00 lb/hr	3.00 lb/hr	In			
412	NO _x	Permit 573964 Condition E7-5	25.40 lb/hr	25.40 lb/hr	In			
412	PM	Permit 573964 Condition E7-6 (AA1)	2.70 lb/hr	2.70 lb/hr	In			
412	VOC	Permit 573964 Condition E7-7 (AA1)	3.78 lb/hr	3.78 lb/hr	In			
412, 413	CO	Permit 573964 Condition E3-2 (AA1)	220 tpy combined	220 tpy combined	In			
10. Other applicable requirements (new requirements that apply to this source during the term of this permit)								
11. Page number: Revision number: Date of revision:								



**TITLE V PERMIT APPLICATION
CURRENT EMISSIONS REQUIREMENTS AND STATUS**

GENERAL IDENTIFICATION AND DESCRIPTION								
1. Facility name: Hampshire Compressor Station					2. Emission source number E13			
3. Describe the process emission source / fuel burning installation / incinerator. Solar Mars 100-T15000S Stationary Compressor Turbine (413)								
EMISSIONS AND REQUIREMENTS								
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status (In/Out)			
413	Opacity	Permit 573964 Condition E3-1	20%	20%	In			
413	Sulfur Content	Permit 573964 Condition E4-2	8.6 grains/100 scf	8.6 grains/100 scf	In			
413	SO2	Permit 573964 Condition E4-4	3.00 lb/hr	3.00 lb/hr	In			
413	NOx	Permit 573964 Condition E4-5 (AA1)	25.40 lb/hr	25.40 lb/hr	In			
413	PM	Permit 573964 Condition E4-6 (AA1)	2.70 lb/hr	2.70 lb/hr	In			
413	VOC	Permit 573964 Condition E4-7 (AA1)	3.78 lb/hr	3.78 lb/hr	In			
412, 413	CO	Permit 573964 Condition E3-2 (AA1)	220 tpy combined	220 tpy combined	In			
10. Other applicable requirements (new requirements that apply to this source during the term of this permit)								
11. Page number: Revision number: Date of revision:								



**TITLE V PERMIT APPLICATION
CURRENT EMISSIONS REQUIREMENTS AND STATUS**

GENERAL IDENTIFICATION AND DESCRIPTION								
1. Facility name: Hampshire Compressor Station					2. Emission source number G3, G4			
3. Describe the process emission source / fuel burning installation / incinerator. Natural Gas-Fired Emergency Generators (G3, G4)								
EMISSIONS AND REQUIREMENTS								
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status (In/Out)			
G3, G4	Opacity	Permit 573964 Condition E3-1	20%	20%	In			
G3, G4	PM	Permit 573964 Condition E6-2 (AA1)	0.60 lb/MMBtu	0.60 lb/MMBtu	In			
G3, G4	PM	Permit 573964 Condition E6-2 (AA1)	5.69 lb/hr	5.69 lb/hr	In			
G3, G4	SO2	Permit 573964 Condition E6-3 (AA1)	1,000 ppm	1,000 ppm	In			
10. Other applicable requirements (new requirements that apply to this source during the term of this permit)								
11. Page number:		Revision number:		Date of revision:				



**TITLE V PERMIT APPLICATION
CURRENT EMISSIONS REQUIREMENTS AND STATUS**

GENERAL IDENTIFICATION AND DESCRIPTION								
1. Facility name:		2. Emission source number						
Hampshire Compressor Station		H1, H2, H3						
3. Describe the process emission source / fuel burning installation / incinerator.								
Natural Gas-Fired Tank Heaters								
EMISSIONS AND REQUIREMENTS								
4. Identify if only a part of the source is subject to this requirement	5. Pollutant	6. Applicable requirement(s): TN Air Pollution Control Regulations, 40 CFR, permit restrictions, air quality based standards	7. Limitation	8. Maximum actual emissions	9. Compliance status (In/Out)			
H1, H2, H3	Opacity	Permit 573964 Condition E3-1	20%	20%	In			
H1, H2, H3	PM	Permit 573964 Condition E8-10	0.6 lb/MMBtu	0.6 lb/MMBtu	In			
H1, H2, H3	PM	Permit 573964 Condition E8-10	0.23 lb/hr	0.23 lb/hr	In			
H1, H2, H3	SO2	Permit 573964 Condition E8-11(AA1)	0.001 lb/hr	0.001 lb/hr	In			
H1, H2, H3	CO	Permit 573964 Condition E8-12(AA1)	0.03 lb/hr	0.03 lb/hr	In			
H1, H2, H3	VOC	Permit 573964 Condition E8-13(AA1)	0.001 lb/hr	0.001 lb/hr	In			
H1, H2, H3	NOx	Permit 573964 Condition E8-14(AA1)	0.04 lb/hr	0.04 lb/hr	In			
10. Other applicable requirements (new requirements that apply to this source during the term of this permit)								
11. Page number:		Revision number:		Date of revision:				



TITLE V PERMIT APPLICATION COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION

GENERAL IDENTIFICATION AND DESCRIPTION

1. Facility name:

Hampshire Compressor Station

2. List all the process emission source(s) or fuel burning installation(s) or incinerator(s) that are part of this application.

**Engine IDs: 401, 402 , 403, 404, 405, 406, 407; Turbine IDs: 412, 413; Generator IDs: G3, G4;
 Tank Heater IDs: H1, H2, H3**

COMPLIANCE PLAN AND CERTIFICATION

3. Indicate that source(s) which are contained in this application are presently in compliance with all applicable requirements, by checking the following:

☒

A. Attached is a statement of identification of the source(s) currently in compliance. We will continue to operate and maintain the source(s) to assure compliance with all the applicable requirements for the duration of the permit.

☐

B. APC 30 form(s) includes new requirements that apply or will apply to the source(s) during the term of the permit. We will meet such requirements on a timely basis.

4. Indicate that there are source(s) that are contained in this application which are not presently in full compliance, by checking both of the following:

☐

A. Attached is a statement of identification of the source(s) not in compliance, non-complying requirement(s), brief description of the problem, and the proposed solution.

☐

B. We will achieve compliance according to the following schedule:

Action

Deadline

Progress reports will be submitted:

Start date: _____ and every 180 days thereafter until compliance is achieved.

5. State the compliance status with any applicable compliance assurance monitoring and compliance certification requirements that have been promulgated under section 114(a)(3) of the Clean Air Act as of the date of submittal of this APC 31.

None

6. Page number:

Revision number:

Date of revision:



TITLE V PERMIT APPLICATION APPLICATION COMPLETENESS CHECK LIST

Note to Applicants: The Application Completeness Check List is required by Division Rule 1200-03-09-.02(11)(d)1(ii)(I) and is used by Division staff to determine whether or not an application is complete. This checklist will be used to resolve any dispute between the applicant and the Division regarding the completeness of an application.

Section 1: Identification and Diagrams (APC 1 and APC 2)		
Requirement	Complete	Incomplete
Site Information	☒	☐
Contact Information (Responsible Official)	☒	☐
Contact Information (Technical)	☒	☐
Contact Information (Billing)	☒	☐
Type of Permit Requested	☒	☐
Accidental Release Information	☒	☐
Nonattainment/Additional Control Area Designation	☒	☐
List of Valid Permits	☒	☐
List and description of process emission sources, fuel burning installations, and incinerators	☒	☐
Flow diagram attached?	☒	☐
List of Insignificant Activities	☒	☐
List of Storage Piles	☒	☐
List of States within 50 Miles	☒	☐
Section 2: Emission Source Description Forms		
Forms are complete as received:		☒
Forms are incomplete (one or more application forms not submitted)		☐
Forms are incomplete (missing information on the following application forms):	APC Form 3, Stack Identification	☒
	APC Form 4, Fuel Burning Non-Process Equipment	☒
	APC Form 5, Stationary Gas Turbines or Internal Combustion Engines	☒
	APC Form 6, Storage Tanks	☐
	APC Form 7, Incinerators	☐
	APC Form 8, Printing Operations	☐
	APC Form 9, Painting and Coating Operations	☐
	APC Form 10, Miscellaneous Processes	☐
	APC Form 33, Stage I and Stage II Vapor Recovery Equipment	☐
	APC Form 34, Open Burning	☐

Section 3: Air Pollution Control System Forms			
Forms are complete as received:		☐	
Forms are incomplete (one or more application forms not submitted)		☐	
Forms are incomplete (missing information on the following application forms):	APC Form 11, Control Equipment - Miscellaneous	☐	
	APC Form 13, Adsorbers	☐	
	APC Form 14, Catalytic or Thermal Oxidation Equipment	☐	
	APC Form 15, Cyclones/Settling Chambers	☐	
	APC Form 17, Wet Collection Systems	☐	
	APC Form 18, Baghouse/Fabric Filters	☐	
Section 4: Compliance Demonstration Forms			
Forms are complete as received:		☐	
Forms are incomplete (one or more application forms not submitted)		☐	
Forms are incomplete (missing information on the following application forms):	APC Form 19, Compliance Certification - Monitoring and Reporting - Description of Methods for Determining Compliance	☒	
	APC Form 20, Continuous Emissions Monitoring	☐	
	APC Form 21, Portable Monitors	☐	
	APC Form 22, Control System Parameters or Operating Parameters of a Process	☐	
	APC Form 23, Monitoring Maintenance Procedures	☐	
	APC Form 24, Stack Testing	☐	
	APC Form 25, Fuel Sampling and Analysis	☐	
	APC Form 26, Recordkeeping	☒	
	APC Form 27, Other Methods	☐	
	APC Form 28, Emissions from Process Emissions Sources / Fuel Burning Installations / Incinerators	☐	
	APC Form 29, Emissions Summary for the Facility or for the Source Contained in This Application	☒	
	APC Form 30, Current Emissions Requirements and Status	☒	
APC Form 32, Air Monitoring Network	☐		
Section 5: Statement of Completeness and Certification of Compliance			
Requirement	Complete	Incomplete	Not Applicable
Certification of Truth, Accuracy, and Completeness (Form APC 1, Section 5)	☒	☐	☐
General Identification and Description (Form APC 31, Items 1 and 2)	☒	☐	☐
Compliance Certification for Sources Currently in Compliance (Form APC 31, Item 3A)	☒	☐	☐
Compliance Certification for New Applicable Requirements (Form APC 31, Item 3B)	☐	☐	☐
Identification of Sources Currently Not in Compliance (Form APC 31, Item 4A)	☐	☐	☐
Compliance Schedule for Sources Currently Not in Compliance (Form APC 31, Item 4B)	☐	☐	☐
Compliance Certification for Enhanced Monitoring (Form APC 31, Item 5)	☐	☐	☐

Section 6: Miscellaneous Information		
Item	Included	Not Included
For Title V modifications, is a description of the modification included?	☐	☐
Request for Permit Shield	☐	☐
Calculations on which emissions-related information are based	☒	☐
Identification of alternative operating scenarios, as applicable	☐	☐
Explanation of any proposed exemptions from otherwise applicable requirements	☐	☐
Other information needed for completeness (explain in comments)	☐	☐
Section 7: Comments		
Describe any missing information below or in a separate attachment:		
Section 8: Application Completeness		
Application is Complete	☒	
Application is Incomplete	☐	

**COLUMBIA GULF TRANSMISSION, LLC – HAMPSHIRE COMPRESSOR STATION
TITLE V OPERATING PERMIT RENEWAL APPLICATION**

Appendix B

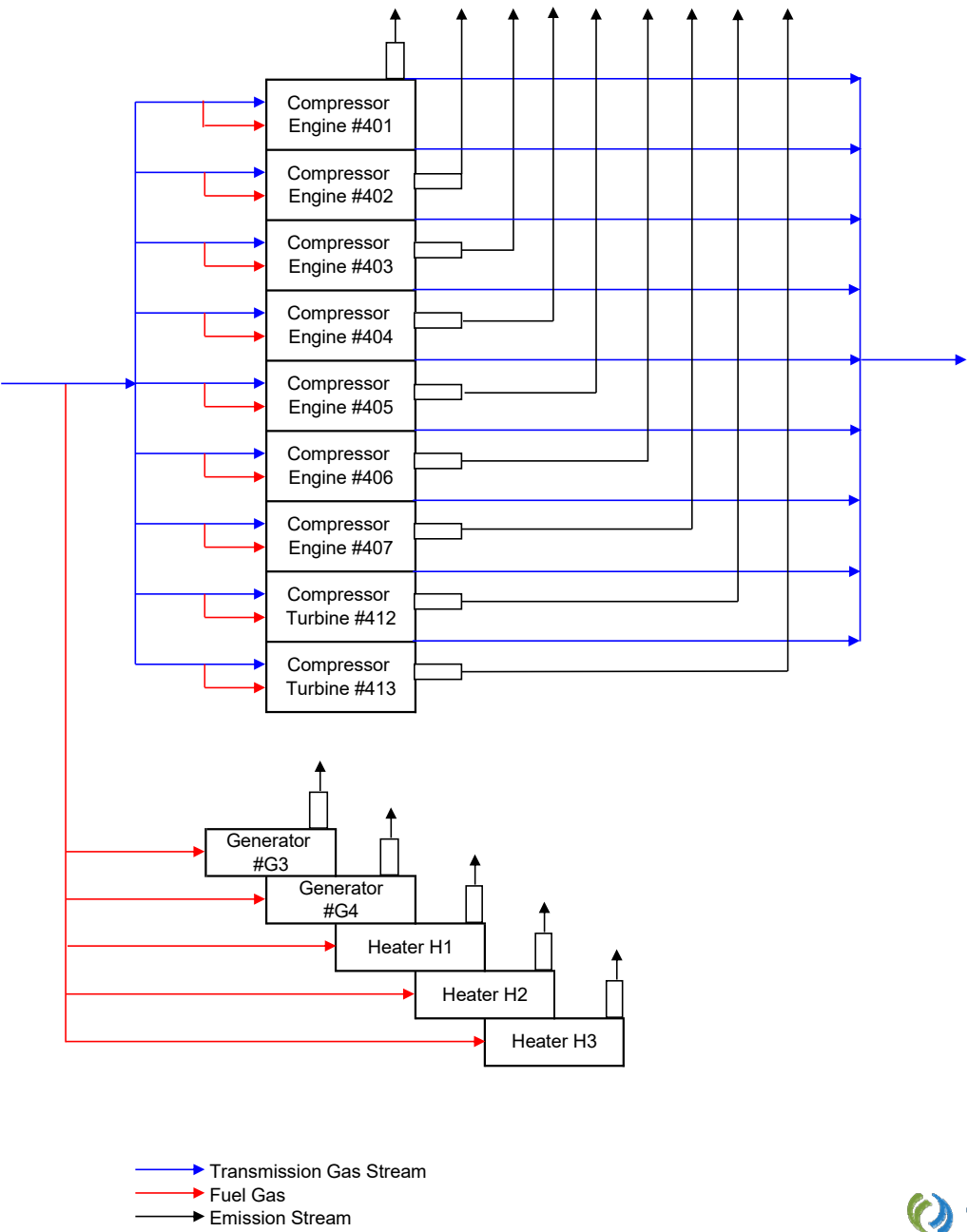
Appendix B

FACILITY MAP AND PROCESS FLOW DIAGRAM





HAMPSHIRE COMPRESSOR STATION PROCESS FLOW DIAGRAM



**COLUMBIA GULF TRANSMISSION, LLC – HAMPSHIRE COMPRESSOR STATION
TITLE V OPERATING PERMIT RENEWAL APPLICATION**

Appendix C

Appendix C

EMISSION CALCULATIONS



Hampshire Compressor Station
Title V Renewal
Source List

Significant Activities

Source ID	Description	Manufacturer	Model	Rated Capacity	Max. Heat Input (MMBtu/Hr)
401	Compressor Engine No. 1	Clark	TLA-6 (2SLB)	2,000 hp	16.80
402	Compressor Engine No. 2	Clark	TLA-6 (2SLB)	2,000 hp	16.80
403	Compressor Engine No. 3	Clark	TLA-6 (2SLB)	2,000 hp	16.80
404	Compressor Engine No. 4	Clark	TLA-6 (2SLB)	2,000 hp	16.80
405	Compressor Engine No. 5	Clark	TLA-6 (2SLB)	2,000 hp	16.80
406	Compressor Engine No. 6	Clark	TLA-6 (2SLB)	2,000 hp	16.80
407	Compressor Engine No. 7	Clark	TLA-6 (2SLB)	2,000 hp	16.80
412	Compressor Turbine No. 1	Solar	Mars 100	17,578 hp	136.50
413	Compressor Turbine No. 2	Solar	Mars 100	17,578 hp	136.50
G3	Generator No. 1 (4SRB)	Waukesha	L5790	720 hp	7.60
G4	Generator No. 2 (4SRB)	Ford	LSG-4231-6007-B	46 hp	0.60
H1	Tank Heater No. 1	Babcock & Wilcox	12 x 6	-	0.125
H2	Tank Heater No. 2	Babcock & Wilcox	12 x 6	-	0.125
H3	Tank Heater No. 3	Babcock & Wilcox	12 x 6	-	0.125

Insignificant Activities

Source ID	Source Description	Rating/Capacity	TAPCR Citation
A0001	Lube Oil Tank	5,000 gallons	1200-3-9-.04(5)(a)(4)(i)
A0002	Lube Oil Tank	5,000 gallons	1200-3-9-.04(5)(a)(4)(i)
A0003	Glycol Tank	5,000 gallons	1200-3-9-.04(5)(a)(4)(i)
A0004	Engine Oil Recovery Tank	1,144 gallons	1200-3-9-.04(5)(a)(4)(i)
A0005	Engine Coolant Recovery Tank	700 gallons	1200-3-9-.04(5)(a)(4)(i)
A0008	Oil/Water Mixture Tank	8,800 gallons	1200-3-9-.04(5)(a)(4)(i)
A0009	Used Oil Tank	8,800 gallons	1200-3-9-.04(5)(a)(4)(i)
A0010	Wastewater Tank	8,800 gallons	1200-3-9-.04(5)(a)(4)(i)
FUG	Fugitive Emissions (Process Units)		1200-3-9-.04(5)(a)(4)(i)

Hampshire Compressor Station
Title V Renewal
Facility Total PTE

Source	Capacity	Annual Emissions (tpy)								Total HAP
		NO _x	CO	CO ₂ e	PM ₁₀	VOC	SO ₂	CH ₂ O		
Compressor Engine 1 (401)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 2 (402)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 3 (403)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 4 (404)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 5 (405)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 6 (406)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Compressor Engine 7 (407)	2,000 hp	239.15	40.91	8,616.54	3.55	8.83	0.04	4.06	5.85	
Turbine Compressor (412)	17,578 hp	92.44	85.38	70,009.35	3.95	2.45	0.43	0.42	0.61	
Turbine Compressor (413)	17,578 hp	92.44	85.38	70,009.35	3.95	2.45	0.43	0.42	0.61	
Generator (G3)	720 hp	4.22	7.10	223.42	0.04	0.06	0.001	0.04	0.06	
Generator (G4)	46 hp	0.30	0.50	15.86	0.003	0.004	8.70E-05	2.78E-03	0.004	
Tank Heater (H1)	0.125 MMBtu/hr	0.05	0.05	64.11	0.004	0.003	3.22E-04	4.03E-05	0.001	
Tank Heater (H2)	0.125 MMBtu/hr	0.05	0.05	64.11	0.004	0.003	3.22E-04	4.03E-05	0.001	
Tank Heater (H3)	0.125 MMBtu/hr	0.05	0.05	64.11	0.004	0.003	3.22E-04	4.03E-05	0.001	
Total Emissions		1,863.59	464.87	200,766.07	32.83	66.79	1.16	29.32	42.27	
Total Emissions with CO Turbine Limit*			514.10							

* Turbines 412 and 413 have 220 tpy limit on CO emissions

Hampshire Compressor Station**Title V Renewal****Clark TLA-6**

Emission Unit IDs 401-407

Date of Construction/Modification 1954-1957

Natural Gas-Fired Reciprocating Engines

2-Stroke, Lean Burn

Horsepower 2,000 hp

Brake Specific Fuel Consumption 7,560 Btu/Bhp-hr

Total Heat Input (LHV) 15.12 MMBtu/hr

Total Heat Input (HHV) 16.80 MMBtu/hr

Operating Hours 8,760 hr/yr

Natural Gas Heat Content 1020 Btu/scf

Fuel Consumption 144.28 MMscf/yr

16,471 scf/hr

Number of Units 7

Pollutant	Emission Factor		Emission Rate		Emission Factor Reference
	g/bhp-hr	lb/MMBtu	lb/hr	ton/yr	
NO _x	12.39		54.60	239.1	Mfr or test data
CO	2.12		9.34	40.91	Mfr or test data
CO ₂ e		117.10	1967.25	8616.54	40 CFR 98 Subpart C
PM ₁₀		0.05	0.81	3.55	AP-42 Table 3.2-1 (7/00) - 2SLB
PM _{2.5}		0.05	0.81	3.55	AP-42 Table 3.2-1 (7/00) - 2SLB
VOC		0.12	2.02	8.83	AP-42 Table 3.2-1 (7/00) - 2SLB
SO ₂		0.0006	0.010	0.043	AP-42 Table 3.2-1 (7/00) - 2SLB
1,1,2,2-Tetrachloroethane		6.63E-05	1.1E-03	0.00	AP-42 Table 3.2-1 (7/00) - 2SLB
1,1,2-Trichloroethane		5.27E-05	8.9E-04	3.9E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
1,3-Butadiene		8.20E-04	1.4E-02	0.06	AP-42 Table 3.2-1 (7/00) - 2SLB
1,3-Dichloropropene		4.38E-05	7.4E-04	3.2E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
2,2,4-Trimethylpentane		8.46E-04	1.4E-02	0.06	AP-42 Table 3.2-1 (7/00) - 2SLB
2-Methylnaphthalene		2.14E-05	3.6E-04	1.6E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Acenaphthene		1.33E-06	2.2E-05	9.8E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Acenaphthylene		3.17E-06	5.3E-05	2.3E-04	AP-42 Table 3.2-1 (7/00) - 2SLB
Acetaldehyde		7.76E-03	1.3E-01	0.57	AP-42 Table 3.2-1 (7/00) - 2SLB
Acrolein		7.78E-03	1.3E-01	0.57	AP-42 Table 3.2-1 (7/00) - 2SLB
Anthracene		7.18E-07	1.2E-05	5.3E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Benz(a)anthracene		3.36E-07	5.6E-06	2.5E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzene		1.94E-03	3.3E-02	0.14	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzo(a)pyrene		5.68E-09	9.5E-08	4.2E-07	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzo(b)fluoranthene		8.51E-09	1.4E-07	6.3E-07	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzo(e)pyrene		2.34E-08	3.9E-07	1.7E-06	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzo(g,h,i)perylene		2.48E-08	4.2E-07	1.8E-06	AP-42 Table 3.2-1 (7/00) - 2SLB
Benzo(k)fluoranthene		4.26E-09	7.2E-08	3.1E-07	AP-42 Table 3.2-1 (7/00) - 2SLB
Biphenyl		3.95E-06	6.6E-05	2.9E-04	AP-42 Table 3.2-1 (7/00) - 2SLB
Carbon Tetrachloride		6.07E-05	1.0E-03	4.5E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Chlorobenzene		4.44E-05	7.5E-04	3.3E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Chloroform		4.71E-05	7.9E-04	3.5E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Chrysene		6.72E-07	1.1E-05	4.9E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Ethylbenzene		1.08E-04	1.8E-03	0.01	AP-42 Table 3.2-1 (7/00) - 2SLB
Ethylene Dibromide		7.34E-05	1.2E-03	0.01	AP-42 Table 3.2-1 (7/00) - 2SLB
Fluoranthene		3.61E-07	6.1E-06	2.7E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Fluorene		1.69E-06	2.8E-05	1.2E-04	AP-42 Table 3.2-1 (7/00) - 2SLB
Formaldehyde		5.52E-02	9.3E-01	4.06	AP-42 Table 3.2-1 (7/00) - 2SLB
Indeno(1,2,3-c,d)pyrene		9.93E-09	1.7E-07	7.3E-07	AP-42 Table 3.2-1 (7/00) - 2SLB
Methanol		2.48E-03	4.2E-02	0.18	AP-42 Table 3.2-1 (7/00) - 2SLB
Methylene Chloride		1.47E-04	2.5E-03	0.01	AP-42 Table 3.2-1 (7/00) - 2SLB
n-Hexane		4.45E-04	7.5E-03	0.03	AP-42 Table 3.2-1 (7/00) - 2SLB
Naphthalene		9.63E-05	1.6E-03	0.01	AP-42 Table 3.2-1 (7/00) - 2SLB
PAH		1.34E-04	2.3E-03	0.01	AP-42 Table 3.2-1 (7/00) - 2SLB
Perylene		4.97E-09	8.3E-08	3.7E-07	AP-42 Table 3.2-1 (7/00) - 2SLB
Phenanthrene		3.53E-06	5.9E-05	2.6E-04	AP-42 Table 3.2-1 (7/00) - 2SLB
Phenol		4.21E-05	7.1E-04	3.1E-03	AP-42 Table 3.2-1 (7/00) - 2SLB

Pollutant	Emission Factor		Emission Rate		Emission Factor Reference
	g/bhp-hr	lb/MMBtu	lb/hr	ton/yr	
Pyrene		5.84E-07	9.8E-06	4.3E-05	AP-42 Table 3.2-1 (7/00) - 2SLB
Styrene		5.48E-05	9.2E-04	4.0E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Toluene		9.63E-04	1.6E-02	0.07	AP-42 Table 3.2-1 (7/00) - 2SLB
Vinyl Chloride		2.47E-05	4.1E-04	1.8E-03	AP-42 Table 3.2-1 (7/00) - 2SLB
Xylene		2.68E-04	4.5E-03	0.02	AP-42 Table 3.2-1 (7/00) - 2SLB
Total HAPs			1.34	5.85	AP-42 Table 3.2-1 (7/00) - 2SLB

Hampshire Compressor Station

Title V Renewal

Solar Mars 100-T15000

Emission Unit IDs

412-413

Date of Construction/Modification	1998 (412), 2000 (413)
Horsepower	17,578 hp
Brake Specific Fuel Consumption	7,176 Btu/Bhp-hr
Total Heat Input	126.14 MMBtu/hr
Max Permitted Heat Input	136.50 MMBtu/hr
Operating Hours	8760 hr/yr
Natural Gas Heat Content	1020 Btu/scf
Fuel Consumption	1172.29 MMscf/yr 133,824 scf/hr

Quantity

Pollutant	Emission Factor lb/MMBtu	Emission Rate		Emission Factor Reference
		lb/hr ¹	ton/yr ²	
NO _x	0.15	21.1	92.44	Vendor Data
CO	0.11	15.3	85.38	Vendor Data
CO ₂ e	117.1	15,984	70,009	40 CFR 98 Subpart C
PM ₁₀	0.0066	0.90	3.95	AP-42 Table 3.1-2a (4/00)
PM _{2.5}	0.0066	0.90	3.95	AP-42 Table 3.1-2a (4/00)
VOC	0.003	0.44	2.45	Vendor Data
SO ₂ (Maximum Hourly)	0.024	3.0		8.6 grains S / 100 scf
SO ₂ (Average Annual)	0.000714		0.43	0.25 grains S / 100 scf
1,3-Butadiene	4.30E-07	5.9E-05	2.57E-04	AP-42 Table 3.1-3 (4/00)
Acetaldehyde	4.00E-05	5.5E-03	2.39E-02	AP-42 Table 3.1-3 (4/00)
Acrolein	6.40E-06	8.7E-04	3.83E-03	AP-42 Table 3.1-3 (4/00)
Benzene	1.20E-05	1.6E-03	7.17E-03	AP-42 Table 3.1-3 (4/00)
Ethylbenzene	3.20E-05	4.4E-03	1.91E-02	AP-42 Table 3.1-3 (4/00)
Formaldehyde	7.10E-04	9.7E-02	4.24E-01	AP-42 Table 3.1-3 (4/00)
Naphthalene	1.30E-06	1.8E-04	7.77E-04	AP-42 Table 3.1-3 (4/00)
PAH	2.20E-06	3.0E-04	1.32E-03	AP-42 Table 3.1-3 (4/00)
Propylene Oxide	2.90E-05	4.0E-03	1.73E-02	AP-42 Table 3.1-3 (4/00)
Toluene	1.30E-04	1.8E-02	7.77E-02	AP-42 Table 3.1-3 (4/00)
Xylene	6.40E-05	8.7E-03	3.83E-02	AP-42 Table 3.1-3 (4/00)
Total HAPs		0.14	0.61	AP-42 Table 3.1-3 (4/00)

1. Maximum hourly emission rate based on the maximum permitted heat input.
2. Annual emission rate based on combination of potential operating modes as provided on following page for NO_x, CO, and VOC. Startup and Shutdown emissions are based 150 cycles (50 hours) per year. The remainder of the hours per year are based on emissions at normal load (59 °F). Normal operation is considered to be 50%-100% load. All other pollutants are based on horsepower and brake specific fuel consumption at 40 °F.

Hampshire Compressor Station
Title V Renewal
Solar Mars 100 Turbines - Emission Rates

Emission Rates per Operating Mode

Operating Mode	Units	NO _x	CO	VOC
Normal Load @ 0°F ¹	lb/hr	21.1	15.3	0.4
Low-Load Operation (<50%)	lb/hr	25.4	485.5	3.78
Low-Temp Operation (-17 °F)	lb/hr	21.7	31.4	0.9
Startup/ Shutdown ²	lb/event	2.0	128.0	9.0

- Based on data from Mars 100-16000S Predicted Emission Performance data sheet and the following concentrations:
42 ppm NO_x; 50 ppm CO; 25ppm UHC; 2.5 ppm VOC
- Based on data from Solar PIL170 for SoLoNO_x CS/MD Application Nominal Start-up and Shutdown, Natural Gas Fuel, Production Units with Enhanced Emissions Control.

Potential Annual Emissions Per Turbine

Operating Mode	Operating Time		NO _x	CO	VOC
	Cycles	hr/yr	ton/yr	ton/yr	ton/yr
Normal Load @ 0 °F		8627	91.16	66.06	1.89
Low-Load Operation (<50%)		50	0.63	12.14	0.09
Low-Temp Operation (-17 °F)		50	0.54	0.79	0.02
Startup / Shutdown	100	33	0.10	6.40	0.45
Total		8,760	92.44	85.38	2.45

Hampshire Compressor Station

Title V Renewal

Waukesha L5790

Emission Unit ID

G3

Date of Construction/Modification

1972

Natural Gas-Fired Generator

4-Stroke, Rich Burn

Horsepower

720 hp

Brake Specific Fuel Consumption

9,540 Btu/Bhp-hr

Total Heat Input

6.9 MMBtu/hr

Total Heat Input (Max)

7.6 MMBtu/hr

Operating Hours

500 hr/yr

Natural Gas Heat Content

1,020 Btu/scf

Fuel Consumption

3.7 MMscf/yr

7,482 scf/hr

Pollutant	Emission Factor	Emission Rate		Emission Factor Reference
	lb/MMBtu	lb/hr	ton/yr	
NO _x	2.21	16.87	4.22	AP-42 Table 3.2-3 (7/00) - 4SRB
CO	3.72	28.39	7.10	AP-42 Table 3.2-3 (7/00) - 4SRB
CO ₂ e	117.1	893.69	223.42	40 CFR 98 Subpart C
PM ₁₀	0.019	0.15	0.04	AP-42 Table 3.2-3 (7/00) - 4SRB
PM _{2.5}	0.019	0.15	0.04	AP-42 Table 3.2-3 (7/00) - 4SRB
VOC	0.0296	0.23	0.06	AP-42 Table 3.2-3 (7/00) - 4SRB
SO ₂	5.00	38.16		20 grains S / 100 scf
SO ₂	0.000714		1.23E-03	0.25 grains S / 100 scf
1,1,2,2-Tetrachloroethane	2.53E-05	1.9E-04	4.8E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
1,1,2-Trichloroethane	1.53E-05	1.2E-04	2.9E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
1,3-Butadiene	6.63E-04	5.1E-03	1.3E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
1,3-Dichloropropene	1.27E-05	9.7E-05	2.4E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Acetaldehyde	2.79E-03	2.1E-02	5.3E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Acrolein	2.63E-03	2.0E-02	5.0E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Benzene	1.58E-03	1.2E-02	3.0E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Carbon Tetrachloride	1.77E-05	1.4E-04	3.4E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Chlorobenzene	1.29E-05	9.8E-05	2.46E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Chloroform	1.37E-05	1.0E-04	2.61E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Ethylbenzene	2.48E-05	1.9E-04	4.7E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Ethylene Dibromide	2.13E-05	1.6E-04	4.1E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Formaldehyde	2.05E-02	1.6E-01	3.9E-02	AP-42 Table 3.2-3 (7/00) - 4SRB
Methanol	3.06E-03	2.3E-02	5.8E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Methylene Chloride	4.12E-05	3.1E-04	7.9E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Naphthalene	9.71E-05	7.4E-04	1.9E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
PAH	1.41E-04	1.1E-03	2.7E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Styrene	1.19E-05	9.1E-05	2.3E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Toluene	5.58E-04	4.3E-03	1.1E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Vinyl Chloride	7.18E-06	5.5E-05	1.4E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Xylene	1.95E-04	1.5E-03	3.7E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Total HAPs		0.25	0.06	AP-42 Table 3.2-3 (7/00) - 4SRB

Hampshire Compressor Station

Title V Renewal

Ford LSG-4231

Emission Unit ID

G4

Date of Construction/Modification

1991

Natural Gas-Fired Generator

4-Stroke, Rich Burn

Horsepower

46 hp

Brake Specific Fuel Consumption

10,600 Btu/Bhp-hr

Total Heat Input

0.49 MMBtu/hr

Total Heat Input (Max)

0.54 MMBtu/hr

Operating Hours

500 hr/yr

Natural Gas Heat Content

1,020 Btu/scf

Fuel Consumption

0.27 MMscf/yr

531 scf/hr

Pollutant	Emission Factor	Emission Rate		Emission Factor Reference
	lb/MMBtu	lb/hr	ton/yr	
NO _x	2.21	1.20	0.30	AP-42 Table 3.2-3 (7/00) - 4SRB
CO	3.72	2.02	0.50	AP-42 Table 3.2-3 (7/00) - 4SRB
CO ₂ e	117.1	63.44	15.86	40 CFR 98 Subpart C
PM ₁₀	0.019	0.01	0.003	AP-42 Table 3.2-3 (7/00) - 4SRB
PM _{2.5}	0.019	0.01	0.003	AP-42 Table 3.2-3 (7/00) - 4SRB
VOC	0.0296	0.02	0.004	AP-42 Table 3.2-3 (7/00) - 4SRB
SO ₂	5.00	2.71		20 grains S / 100 scf
SO ₂	0.000714		8.70E-05	0.25 grains S / 100 scf
1,1,2,2-Tetrachloroethane	2.53E-05	1.4E-05	3.4E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
1,1,2-Trichloroethane	1.53E-05	8.3E-06	2.1E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
1,3-Butadiene	6.63E-04	3.6E-04	9.0E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
1,3-Dichloropropene	1.27E-05	6.9E-06	1.7E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Acetaldehyde	2.79E-03	1.5E-03	3.8E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Acrolein	2.63E-03	1.4E-03	3.6E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Benzene	1.58E-03	8.6E-04	2.1E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Carbon Tetrachloride	1.77E-05	9.6E-06	2.4E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Chlorobenzene	1.29E-05	7.0E-06	1.75E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Chloroform	1.37E-05	7.4E-06	1.86E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Ethylbenzene	2.48E-05	1.3E-05	3.4E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Ethylene Dibromide	2.13E-05	1.2E-05	2.9E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Formaldehyde	2.05E-02	1.1E-02	2.8E-03	AP-42 Table 3.2-3 (7/00) - 4SRB
Methanol	3.06E-03	1.7E-03	4.1E-04	AP-42 Table 3.2-3 (7/00) - 4SRB
Methylene Chloride	4.12E-05	2.2E-05	5.6E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Naphthalene	9.71E-05	5.3E-05	1.3E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
PAH	1.41E-04	7.6E-05	1.9E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Styrene	1.19E-05	6.4E-06	1.6E-06	AP-42 Table 3.2-3 (7/00) - 4SRB
Toluene	5.58E-04	3.0E-04	7.6E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Vinyl Chloride	7.18E-06	3.9E-06	9.7E-07	AP-42 Table 3.2-3 (7/00) - 4SRB
Xylene	1.95E-04	1.1E-04	2.6E-05	AP-42 Table 3.2-3 (7/00) - 4SRB
Total HAPs		0.02	0.004	AP-42 Table 3.2-3 (7/00) - 4SRB

Hampshire Compressor Station
Title V Renewal
Natural Gas-Fired Tank Heaters

Emission Unit ID **H1, H2, H3**
Date of Construction/Modification 06/1998
Natural Gas-Fired Boiler
Total Heat Input 0.13 MMBtu/hr
Operating Hours 8,760 hr/yr
Natural Gas Heat Content 1,020 Btu/scf
Fuel Consumption 1.07 MMscf/yr
123 scf/hr

Pollutant	Emission Factor		Emission Rate		Emission Factor Reference
	lb/10 ⁶ scf	lb/MMBtu	lb/hr	ton/yr	
NO _x	100		0.01	0.05	AP-42 Table 1.4-1 (7/98) Small Boilers (<100 MMBtu/hr)
CO	84		0.01	0.05	AP-42 Table 1.4-1 (7/98) Small Boilers (<100 MMBtu/hr)
CO ₂ e		117.10	14.64	64.11	40 CFR 98 Subpart C
PM ₁₀	7.6		0.001	0.004	AP-42 Table 1.4-2 (7/98)
PM _{2.5}	7.6		0.001	0.004	AP-42 Table 1.4-2 (7/98)
VOC	5.5		0.001	0.003	AP-42 Table 1.4-2 (7/98)
SO ₂	0.6		0.0001	0.0003	AP-42 Table 1.4-2 (7/98)
2-Methylnaphthalene	2.4E-05		2.94E-09	1.3E-08	AP-42 Table 1.4-3 (7/98)
3-Methylcholanthrene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
7,12-Dimethylbenz(a)anthracene	1.6E-05		1.96E-09	8.6E-09	AP-42 Table 1.4-3 (7/98)
Acenaphthene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Acenaphthylene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Anthracene	2.4E-06		2.94E-10	1.3E-09	AP-42 Table 1.4-3 (7/98)
Benz(a)anthracene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Benzene	2.1E-03		2.57E-07	1.1E-06	AP-42 Table 1.4-3 (7/98)
Benzo(a)pyrene	1.2E-06		1.47E-10	6.4E-10	AP-42 Table 1.4-3 (7/98)
Benzo(b)fluoranthene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Benzo(g,h,i)perylene	1.2E-06		1.47E-10	6.4E-10	AP-42 Table 1.4-3 (7/98)
Benzo(k)fluoranthene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Chrysene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Dibenzo(a,h)anthracene	1.2E-06		1.47E-10	6.4E-10	AP-42 Table 1.4-3 (7/98)
Dichlorobenzene	1.2E-03		1.47E-07	6.4E-07	AP-42 Table 1.4-3 (7/98)
Fluoranthene	3.0E-06		3.68E-10	1.6E-09	AP-42 Table 1.4-3 (7/98)
Fluorene	2.8E-06		3.43E-10	1.5E-09	AP-42 Table 1.4-3 (7/98)
Formaldehyde	7.5E-02		9.19E-06	4.0E-05	AP-42 Table 1.4-3 (7/98)
Hexane	1.8E+00		2.21E-04	0.00	AP-42 Table 1.4-3 (7/98)
Indeno(1,2,3-cd)pyrene	1.8E-06		2.21E-10	9.7E-10	AP-42 Table 1.4-3 (7/98)
Naphthalene	6.1E-04		7.48E-08	3.3E-07	AP-42 Table 1.4-3 (7/98)
Phenanthrene	1.7E-05		2.08E-09	9.1E-09	AP-42 Table 1.4-3 (7/98)
Pyrene	5.0E-06		6.13E-10	2.7E-09	AP-42 Table 1.4-3 (7/98)
Toluene	3.4E-03		4.17E-07	1.8E-06	AP-42 Table 1.4-3 (7/98)
Arsenic	2.0E-04		2.45E-08	1.1E-07	AP-42 Table 1.4-4 (7/98)
Beryllium	1.2E-05		1.47E-09	6.4E-09	AP-42 Table 1.4-4 (7/98)
Cadmium	1.1E-03		1.35E-07	5.9E-07	AP-42 Table 1.4-4 (7/98)
Chromium	1.4E-03		1.72E-07	7.5E-07	AP-42 Table 1.4-4 (7/98)
Cobalt	8.4E-05		1.03E-08	4.5E-08	AP-42 Table 1.4-4 (7/98)
Manganese	3.8E-04		4.66E-08	2.0E-07	AP-42 Table 1.4-4 (7/98)
Mercury	2.6E-04		3.19E-08	1.4E-07	AP-42 Table 1.4-4 (7/98)
Nickel	2.1E-03		2.57E-07	1.1E-06	AP-42 Table 1.4-4 (7/98)
Selenium	2.4E-05		2.94E-09	1.3E-08	AP-42 Table 1.4-4 (7/98)
Total HAPs	1.89		0.0002	0.001	AP-42 Table 1.4-3 and Table 1.4-4 (7/98)

Hampshire Compressor Station
Title V Renewal
Fugitive Emissions from Leaks

Component	Total	Table 2-4 factors ¹		Total	CH4 lb/hr	CO2 lb/hr	VOC lb/hr	CH4 tpy	CO2 tpy	CO2e ² tpy	HAP ³ tpy	VOC lb/day	VOC tpy
		kg/hr/component	kg/hr										
Seals	2	0.0024	0.00	0.01	0.01	5.18E-05	1.45E-04	0.04	2.27E-04	0.97	0.00	3.48E-03	6.35E-04
Valve	521	0.0045	2.34	5.17	4.31	2.53E-02	7.09E-02	18.88	0.11	472.13	0.01	1.70	0.31
Pressure Relief Valve	3	0.0088	0.03	0.06	0.05	2.85E-04	7.98E-04	0.21	0.00	5.32	0.00	0.02	0.00
Open-Ended Line	10	0.002	0.02	0.04	0.04	2.16E-04	6.04E-04	0.16	9.45E-04	4.03	0.00	0.01	2.65E-03
Connectors	1216	0.0002	0.24	0.54	0.45	2.62E-03	7.35E-03	1.96	1.15E-02	48.97	0.00	0.18	3.22E-02
Flanges	353	0.00039	0.14	0.30	0.25	1.48E-03	4.16E-03	1.11	6.50E-03	27.72	0.00	0.10	1.82E-02
Meter	0	0.0088	0.00	0.00	0.00	0.00E+00	0.00E+00	0.00	0.00E+00	0.00	0.00	0.00	0.00E+00
Total:													0.37

1. Emission factors from Table 2-4 'Oil and Gas Production Operations Average Emission Factors' from 'Protocol for Equipment Leak Emission Estimates' (EPA-453/R-95-017 - November 1995)
2. Based on Global Warming Potential of 25 lb CO₂e/lb CH₄ per 40 CFR 98 Subpart A
3. All HAPs are assumed to be hexane.

Hampshire Compressor Station
Title V Renewal
Emissions from Blowdowns

Annual Blowdown Emissions:

9,500,000 scf/yr

Component	Emission Rate									
	Total	CH ₄ ²	CO ₂ ²	CH ₄ ³	CO ₂ ³	CH ₄	CO ₂	CO ₂ e ⁴	VOC ⁵	HAP ⁶
Intermittent During Startup/Shutdown	scf/yr	scf/yr	scf/yr	lb/yr	lb/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
Blowdowns ¹	9,500,000	8,618,700	18,428	364,818	2,137	182.41	1.07	4,561.30	3.00	0.07
							Total:	4,561.3	3.00	0.07

1. Emission rates per year
2. CH₄ and CO₂ emission rates based on 90.72 vol% CH₄ and 0.1940 vol% CO₂ in natural gas
3. Conversion based on densities of GHG as provided in 40 CFR 98.233(v)
4. Based on 40 CFR 98 Subpart A Global Warming Potentials
5. Based on a 0.01644 ratio of VOC to methane as calculated from gas composition
6. Based on a 0.00039 ratio of hexane to methane as calculated from gas composition

Volume fractions per gas composition

0.9072 CH₄

0.0019 CO₂

Densities per 40 CFR 98.233(v):

0.0192 kg/scf CH₄

0.0526 kg/scf CO₂

2.20462 lb/kg