



State of Utah

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Governor

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Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

12512

Title V Operating Permit

PERMIT NUMBER: 5300050002
DATE OF PERMIT: March 19, 2015
Date of Last Revision: February 18, 2016

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Kern River Gas Transmission Company
2755 E Cottonwood Parkway
Suite 300, PO Box 71400
Salt Lake City, UT 84171-0400

Permitted Location:

Veyo Compressor Station
Section 33&4, T39&40 S, R17W
37-20-48 N Lat & 113-45-46 W Long
Veyo, UT 84782

UTM coordinates: 255,170 m Easting, 4,137,010 m Northing
SIC code: 4922 (Natural Gas Transmission)

By:

Bryce C. Bird, Director

Prepared By:

Mr. William Andes

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in
Section I: General Provisions of this permit.

Annual Certification Due:	August 15 and on that date of every calendar year that this permit is in force.
Renewal application due:	September 19, 2019
Permit expiration date:	March 19, 2020
Definition of “prompt”:	written notification within 14 days.

ABSTRACT

The Veyo compressor station compresses natural gas for injection into the Kern River natural gas transportation system. The facility includes three SoLoNO_x turbine driven centrifugal compressors, an emergency backup power generator, and a gas fired hot water heater. The Veyo compressor station is a major source of NO_x and CO. The source is subject to 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines and 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE).

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V administrative amendment by DAQ (Project #OPP0125120006)	02/18/2016	Changes: Incorporates DAQE-AN125120008-15
Title V renewal application (Project #OPP0125120004)	03/19/2015	Changes: Update requirements for new or revised regulation.
Title V initial application (Project #OPP0125120003)	07/07/2010	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C Duty to Comply.

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D Permit Expiration and Renewal.

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Director takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Director any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Director consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J **Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director or an authorized representative to perform any of the following:

- I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))
- I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))
- I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))
- I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K **Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. 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. (R307-415-5d)

I.L **Compliance Certification.**

I.L.1 Permittee shall submit to the Director an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee 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 monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.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 Provision I.L.1.b. 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 under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Director may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Director: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Director to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Director within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))
- I.O **Operational Flexibility.**
Operational flexibility is governed by R307-415-7d(1).
- I.P **Off-permit Changes.**
Off-permit changes are governed by R307-415-7d(2).
- I.Q **Administrative Permit Amendments.**
Administrative permit amendments are governed by R307-415-7e.
- I.R **Permit Modifications.**
Permit modifications are governed by R307-415-7f.
- I.S **Records and Reporting.**
- I.S.1 Records.
- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))
- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.
- I.S.1.b.2 The date analyses were performed.

- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.
- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.
- I.S.2 Reports.
 - I.S.2.a Monitoring reports shall be submitted to the Director every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
 - I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
 - I.S.2.c The Director shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit. Deviations from permit requirements due to breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))
- I.S.3 Notification Addresses.
 - I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Director are to be sent to the following address or to such other address as may be required by the Director:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000
 - I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Director:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications,

applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships and Regulatory Assistance Air and Radiation Program
(mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T **Reopening for Cause.**

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Director or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Director determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U **Inventory Requirements.**

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V **Title IV and Other, More Stringent Requirements**

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 **Permitted Source**
 Source-wide

II.A.2 **C1: Natural Gas Turbine Compressor Engine**
 Only pipeline quality natural gas-fired turbine with SoLoNO_x burners rated at approximately 15,000 hp. Mechanical diversion dampers installed allow exhaust gases to be diverted to a waste heat recovery system in some operating scenarios.

II.A.3 **C2 and C3: Natural Gas Turbine Compressor Engines**
 Two only pipeline quality natural gas-fired turbines with SoLoNO_x burners rated at approximately 15,000 hp each. Mechanical diversion dampers installed allow exhaust gases to be diverted to a waste heat recovery system in some operating scenarios.

II.A.4 **Emergency Backup generator**
 Approximately 1072 hp only pipeline quality natural gas-fired RICE generator for emergency power.

II.A.5 **Boiler**
 3.815MMBTU/hr only pipeline quality natural gas-fired hot water heater.

II.A.6 **Mechanical Diversion Dampers for C1, C2, C3**
 Non-emitting equipment included for informational purposes only. The mechanical diversion dampers are used to divert exhaust gases through a waste heat recovery system.

II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on Permitted Source (Source-Wide).**

II.B.1.a **Condition:**

At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN125120008-15]. [40 CFR 60.11(d), R307-401-8(2)]

II.B.1.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.a.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

- II.B.1.a.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.b Condition:**
- Visible emissions shall be no greater than 10 percent opacity from compressors, heater and emergency backup generator. [Origin: DAQE-AN125120008-15]. [R307-401-8(1)(a)(BACT)]
- II.B.1.b.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.b.2 Recordkeeping:**
- In lieu of monitoring via visible emission observations, the permittee shall keep one of the following sets of records for each affected emission unit, as applicable:
- (1) Documentation that the emission unit can only burn pipeline quality natural gas;
 - (2) Documentation that the fuels other than pipeline quality natural gas cannot be supplied to the emission unit without modification of the fuel supply system; or
 - (3) Fuel bills or fuel meter reading that demonstrate only pipeline quality natural gas is combusted in the emission unit.
- The permittee shall keep a log which includes the location and description of each affected emission unit. For each affected emission unit the log shall include the type of records that will be used in lieu of monitoring via visible emission observations, the permittee shall review fuel bills or fuel meter reading once per quarter and record in the log the types of fuel combusted. The records and log required by this condition shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.1.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.c Condition:**
- Sulfur content of any natural gas burned shall be no greater than 0.068% by weight. [Origin: 40 CFR 60, Subpart GG]. [40 CFR 60.331(u)]
- II.B.1.c.1 Monitoring:**
- The Federal Energy Regulatory Commission (FERC) gas tariff serves as the monitoring. (40 CFR 60.334(h)(3)(i)).
- II.B.1.c.2 Recordkeeping:**
- The total sulfur limit in the FERC gas tariff shall be recorded and converted to percent sulfur by weight to determine the sulfur content. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2

Conditions on Natural Gas Turbine Compressor (C1).

II.B.2.a

Condition:

Emissions of CO shall be no greater than 10.12 lb/hr. [Origin: DAQE-AN125120008-15]. [R307-401-8(1)(a)(BACT)]

II.B.2.a.1

Monitoring:

Stack testing shall be performed as specified here:

(a) Frequency. Test every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 10 or every two years with a portable testing monitor. If a portable monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 10. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Director. An Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director.

(2) To test for CO emissions: 40 CFR 60, Appendix A, Method 10, or other EPA-approved testing method, as acceptable to the Director. A portable testing monitor may be used in lieu of the reference test method provided the requirements of (a) are met. If the requirements of (a) are not met, the reference test method must be used for subsequent tests.

(e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director, to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to waste heat recovery.

II.B.2.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.a.3

Reporting:

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.2.b

Condition:

Emissions of NO_x shall be no greater than 8.35 lb/hr. [DAQE-AN125120008-15]. [40 CFR 60 Subpart GG, R307-401-8(1)(a)(BACT)]

II.B.2.b.1

Monitoring:

Stack testing shall be performed as specified here:

(a) Frequency. Test every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 20 or every two years with a portable testing monitor. If a portable testing monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 20. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 in accordance with 40 CFR 60.335(a)(4) and (5). An Occupational Safety and Health Administrations (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director.

(2) To test for NO_x emissions: CFR 60. Appendix A, Method 20, or other EPA-approved testing method, as acceptable to the Director. A portable testing monitor may be used in lieu of the reference test method provided the requirements of (a) are met. If the requirements of (a) are not met, the reference test method must be used for subsequent tests.

(e) Calculations. The nitrogen oxides emission rate (NO_x) shall be computed using 40 CFR 60.335 (b).

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to the waste heat recovery.

II.B.2.b.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.b.3

Reporting:

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.2.c

Condition:

Emissions of NO_x shall not be greater than the concentration calculated by the equation

$$STD = 0.0150 (14.4/Y) + F \text{ where}$$

STD is the allowable NO_x emission in percent by volume, dry, at 15 percent oxygen;

0.0150 is the base emission standard, in percent by volume;

Y is the ratio of fuel consumption (in kJ/hr) over output power (in watts), with Y not to exceed 14.4 (dimensionless); and

F is an allowance for the fuel bound nitrogen as determined by the following table:

Fuel bound nitrogen, N, wt%	F, NO _x percent by volume
N<0.015	0
0.015<N<=0.1	0.04N
0.1<N<=0.25	0.004 + 0.0067(N-0.1)
N>0.25	0.005.

[Origin: 40 CFR 60 Subpart GG] [40 CFR 60.332(a)]

II.B.2.c.1

Monitoring:

Stack testing shall be performed as specified here:

(a) Frequency. The source shall be tested every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 20 or every two years with a portable testing monitor. If a portable testing monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 20. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) Sample Point: The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 in accordance with 40 CFR 60.335(a)(4) and (5). In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods

(1) 40 CFR 60, Appendix A, Method 20, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the nitrogen oxides and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen;

(2) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine stack gas velocity and volumetric flow rate;

(3) Fuel-bound nitrogen content (F) shall be assumed to be 0 wt%, in accordance with 40 CFR 60.332(a)(3);

(e) Calculations. The nitrogen oxides emission rate (NO_x) shall be computed using 40 CFR 60.335(b)

(f) Production Rate during Testing. The operational rate during all compliance testing shall be no less than 90% of the maximum rate achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to waste heat recovery.

II.B.2.c.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision S.1 in Section I of this permit.

II.B.2.c.3 **Reporting:**

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.3 **Conditions on Natural Gas Turbine Compressors (C2 & C3).**

II.B.3.a **Condition:**

Emissions of CO shall be no greater than 11.34 lb/hr for each turbine. [Origin: DAQE-AN125120008-15]. [R307-401-8(1)(a)(BACT)]

II.B.3.a.1 **Monitoring:**

Stack testing shall be performed as specified here:

(a) Frequency. Test every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 10 or every two years with a portable testing monitor. If a portable testing monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 10. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Director. An Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director.

(2) To test for CO emissions: 40 CFR 60, Appendix A, Method 10, or other EPA-approved testing method, as acceptable to the Director. A portable testing monitor may be used in lieu of the reference test method provided the requirements of (a) are met. If the requirements of (a) are not met, the reference test method must be used for subsequent tests.

(e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director, to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to the waste heat recovery.

II.B.3.a.2 Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.a.3 Reporting:

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.3.b Condition:

Emissions of NO_x shall be no greater than 9.31 lb/hr. for each turbine. [Origin: DAQE-AN125120008-15]. [40 CFR 60 Subpart GG, R307-403-8(1)(a)(BACT)]

II.B.3.b.1 Monitoring:

Stack testing shall be performed as specified here:

(a) Frequency. Test every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 20 or every two years with a portable testing monitor. If a portable testing monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 20. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 in accordance with 40 CFR 60.335(a)(4) and (5). An Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods to be used:

(1) To determine stack volumetric flow rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director.

(2) To test for NO_x: 40 CFR 60, Appendix A Method 20, or other EPA-approved testing method, as acceptable to the Director. A portable testing monitor may be used in lieu of the reference test method provided the requirements of (a) are met. If the requirements of (a) are not met, the reference test method must be used for subsequent tests.

(e) Calculations. The nitrogen oxides emission rate (NO_x) shall be computed for each run using 40 CFR 60.335(b).

(f) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to waste heat recovery.

II.B.3.b.2 Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.b.3 Reporting:

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.3.c Condition:

Emissions of NO_x shall not be greater than the concentration calculated by the equation

$$\text{STD} = 0.0150 (14.4/Y) + F \text{ where}$$

STD is the allowable NO_x emission in percent by volume, dry, at 15 percent oxygen;

0.0150 is the base emission standard, in percent by volume;

Y is the ratio of fuel consumption (in kJ/hr) over output power (in watts), with Y not to exceed 14.4 (dimensionless); and

F is an allowance for the fuel bound nitrogen as determined by the following table:

Fuel bound nitrogen, N, wt%	F, NO _x percent by volume
N<0.015	0
0.015<N<=0.1	0.04N
0.1<N<=0.25	0.004 + 0.0067(N-0.1)
N>0.25	0.005.

[Origin: 40 CFR 60 Subpart GG]. [40 CFR 60.332((a))]

II.B.3.c.1 Monitoring:

Stack testing shall be performed as specified here:

(a) Frequency. Test every five years, based on the date of the most recent stack test, using 40 CFR 60, Appendix A, Method 20 or every two years with a portable testing monitor. If a portable testing monitor is to be used, a correlation must be established during the initial test between the portable testing monitor and Method 20. Subsequently, the portable testing monitor results shall be correlated with the results of the periodic reference method test at least once every five years. The Director may require testing at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director. Testing protocol shall be approved by the Director.

(c) Sample Point: The emission sample point shall conform to the requirements of 40 CFR 60,

Appendix A, Method 1 in accordance with 40 CFR 60.335(a)(4) and (5). In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods

(1) 40 CFR 60, Appendix A, Method 20, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the nitrogen oxides and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen;

(2) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine stack gas velocity and volumetric flow rate;

(3) Fuel-bound nitrogen content (F) shall be assumed to be 0 wt%, in accordance with 40 CFR 60.332(a)(3);

(e) Calculations. The nitrogen oxides emission rate (NO_x) shall be computed for each run using 40 CFR 60.335(b)

(f) Production Rate during Testing. The operational rate during all compliance testing shall be no less than 90% of the maximum rate achieved in the previous three (3) years.

(g) Stack testing shall be performed with the mechanical diversion damper positioned so that the turbine exhaust gases are not diverted to waste heat recovery.

II.B.3.c.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.c.3

Reporting:

Results of required stack testing shall be submitted to the Director within 60 days of completion of the testing. The submittal shall clearly identify results and indicate compliance status. The annual compliance certification required by Provision L in Section I of this permit shall use the most recent test results as a basis for stating compliance status for this limitation.

II.B.4

Conditions on Emergency Backup Generator.

II.B.4.a

Condition:

The permittee shall comply with the following operation limitations and other requirements at all times:

(1) The permittee shall operate the emergency generator according to the requirements in paragraphs (1)(a) through (1)(c). To be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in (1)(a) through (1)(c), is prohibited. If the engine is not operated in accordance with paragraphs (1)(a) through (1)(c), it will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

(a) There is no time limit on the use of the emergency generator in emergency situations. [40 CFR 63.6640(f)(1)]

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

for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hour per calendar year.

(c) The permittee may operate the affected emission unit up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hour per year provided for maintenance and testing and shall meet the requirements in 40 CFR 63.6640(f)(4).

(2) The permittee shall comply with the following operational requirements for the emergency generator at all times, except during periods of startup:

(a) Change oil and filter every 500 hours of operation or annually, whichever comes first.

(b) Inspect air cleaner 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.

(d) The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(j).

(3) During periods of startup, the permittee shall minimize the engine's time spent at idle and minimize the 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 non-startup emission limits apply.

(4) The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [Origin: 40 CFR 63, Subpart ZZZZ]. [40 CFR 63.6603, 40 CFR 63.6605, 40 CFR 63.6625(h), 40 CFR 63.6640(f), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ, 40 CFR 63 Subpart ZZZZ]

II.B.4.a.1

Monitoring:

The permittee shall demonstrate continuous compliance by operating and maintaining the emergency generator and after-treatment control device (if any) according to the manufacturer's emission-related written operations and maintenance instructions or develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]

The permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

If the emergency generator is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Condition II.B.4.a(2), 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 shall 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 shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.4.a.2

Recordkeeping:

The permittee shall keep the records described below for the emergency generator. [40 CFR 63.6655(a)]

A copy of each notification and report submitted to comply with 40 CFR 63, Subpart ZZZZ, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]

Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]

Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]

The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall 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 engine is used for the purposes specified in Section 63.6640(f)(2)(ii) or (iii) or Section 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [40 CFR 63.6655(f)]

If additional hours are to be used for maintenance checks and readiness testing, the permittee shall maintain records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]

The permittee shall keep records that demonstrate continuous compliance with each applicable operating limitation (including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan). [40 CFR 63.6655(d)]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the emergency generator and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665]

Records shall be maintained in accordance with 40 CFR 63.6660 and Section I.S.1 of this permit.

II.B.4.a.3

Reporting:

The permittee shall 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, Subpart ZZZZ Table 2d Footnote 2]

The permittee shall also report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b

Condition:

At all times, the permittee shall operate and maintain the emergency generator, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not

require the permittee to make any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director 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. [Origin: 40 CFR 63, Subpart ZZZZ]. [40 CFR 63.6605(b)]

- II.B.4.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.4.b.2 **Recordkeeping:**
- Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
- The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)] The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.6660 and Section I of this permit.
- II.B.4.b.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.C **Emissions Trading**
(R307-415-6a(10))
- Not applicable to this source.
- II.D **Alternative Operating Scenarios.**
(R307-415-6a(9))
- Not applicable to this source.

SECTION III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

SECTION IV: ACID RAIN PROVISIONS

IV.A **This source is not subject to Title IV. This section is not applicable.**

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates DAQE-AN125120008-15 dated December 10, 2015
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1. Comment on an item originating in 40 CFR 64 regarding Permitted Source CAM applicability: CAM applicability has been evaluated. There are no CAM requirements in this permit. [Last updated February 3, 2016]

2. Comment on an item originating in DAQE-AN125120008-15 regarding Permitted Source Notification and initial testing: The requirements for initial compliance testing of SO₂, NO_x, and CO are not included in this permit as they are one time events and have been completed. The requirement to notify the Director when the installation of equipment is completed and is operational is not included for the same reason. Also, initial testing required by 40 CFR 60, Subpart GG has been completed. [Last updated February 3, 2016]

3. Comment on an item originating in 40 CFR 60, Subpart JJJJ regarding Emergency Backup generator
Applicability: The backup generator engine is an emergency engine commenced construction in 2001; therefore, this regulation does not apply at this time. [Last updated February 3, 2016]

4. Comment on an item originating in DAQE-AN125120008-15 regarding Mechanical Diversion Dampers for C1, C2, C3
Waste heat recovery and subsequent exhaust emissions: These are under separate ownership with a separate approval order (DAQE-AN155230001-15) [Last updated February 3, 2016]