State of Utah

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

Title V Operating Permit

PERMIT NUMBER: 5300011003
DATE OF PERMIT: August 27, 2008
Date of Last Revision: June 25, 2009

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

Name of Permittee:

St. George City Power
175 E 200 North
St. George UT 84770

St. George City Power: Red Rock Power, Millcreek and Bloomington Power Generation Station
695 E. Skyline Dr.
St. George UT 84770

Permitted Location:

UTM coordinates: 271,750 m Easting, 4,108,800 m Northing
SIC code: 4911 (Electric Services)

UTAH AIR QUALITY BOARD

By:

M. Cheryl Heying, Executive Secretary

Prepared By:

Jennifer He

ENFORCEABLE DATES AND TIMELINES

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

Annual Certification Due:	October 1, 2008 and on that date of every calendar year that this permit is in force.
Renewal application due:	February 27, 2013
Permit expiration date:	August 27, 2013
Definition of "prompt":	written notification within 14 days.

ABSTRACT

St. George City Power Plant operates Red Rock, Bloomington, and Millcreek generating facilities located within the boundaries of the city. The Red Rock facility has two diesel fuel internal combustion engines, the Bloomington facility has six diesel generators, and the Millcreek facility has three natural gas turbine generators and one diesel generator. St. George City Power Plant is a major source of NO_x and CO. The plant is a Phase II Acid Rain source. New Source Performance Standard (NSPS) Subparts GG and KKKK apply to the gas turbine located in the Millcreek facility.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V administrative amendment - enhanced AO (Project #OPP0108920013)	6/25/2009	Changes: due to issuance of AO DAQE-AN0108920011-09, dated April 27, 2009, for adding two new turbines and reducing testing requirements on the Millcreek diesel generator.
Title V renewal application (Project #OPP0108920010)	8/27/2008	Changes: There is no change in the renewal permit.
Title V significant modification (Project #OPP0108920005)	12/6/2005	Changes: to include the other two generating facilities (Millcreek and Bloomington) located within the boundaries of the city into the Title V permit.
Title V renewal application (Project #OPP0108920004)	4/29/2003	
Title V administrative amendment by source (Project #OPP0108920003)	11/15/2001	Changes: to increase plant wide annual NOx limit and lower fuel sulfur content limit.
Title V significant modification (Project #OPP0108920002)	9/9/1998	Changes: Change Section II.B.2.c1 and II.B.2.e.1of the Operating Permit (#5300011001) dated June 3, 1997, which are the monitoring conditions for the NO_x and CO limits, respectively.
Title V initial application (Project #OPP0108920001)	6/3/1997	

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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 Executive Secretary, within a reasonable time, any information that the Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary: (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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 Executive Secretary 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 unavoidable 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 Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

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 Executive Secretary:

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 & Regulatory Assistance Air & 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 Executive Secretary 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 Executive Secretary 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 **Diesel Fuel Internal Combustion Engines (Red Rock)**
Two 9,750 HP diesel engines located in Red Rock facility.

II.A.3 **Diesel Generators/Engines (Bloomington)**
Six Caterpillar 3516 diesel generators/engines located in Bloomington facility, each with design rating of 1,750 kW.

II.A.4 **Above Ground Storage Tanks (Bloomington)**
Three above ground diesel fuel storage tanks, with capacity of 10, 000 gallons each. No-unit specific applicable requirements.

II.A.5 **Natural Gas Turbine (Millcreek)**
One GE LM6000-PD Dry Low NO_x (DLE) natural gas-fired turbine generator set with a nominal output of 39.1 MW, turbine stack 45 feet high measured from the ground level, NSPS GG

II.A.6 **Emergency Generator (Redrock)**
One 750 kW diesel-fired emergency generator. No-unit specific applicable requirements.

II.A.7 **New Natural Gas Turbines (Millcreek)**
Two GE LM6000-PD Dry Low Emission (DLE) natural gas-fired turbine generator set with a nominal output of 39.1 MW, SCR equipped, NSPS Subpart KKKK

II.A.8 **Blackstart Generator (Millcreek)**
Caterpillar 3516 diesel emergency generator/engine located at the Millcreek facility, with design rating of 1,750 kW.

II.A.9 **Fuel Storage Tanks (Redrock)**
Four miscellaneous fuel storage tanks. No-unit specific applicable requirements.

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:**

Sulfur content of the fuel oil combusted shall be no greater than 0.05 % by weight. [Origins: DAQE - AN0108920011-09]. [R307-401-8(1)(a)(BACT), R307-203-1]

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

For each delivery of oil, the permittee shall either:

(1) Determine the fuel sulfur content expressed as wt% in accordance with the methods of the

American Society for Testing Materials (ASTM);

(2) Inspect the fuel sulfur content expressed as wt% determined by the vendor using methods of the ASTM; or

(3) Inspect documentation provided by the vendor that indirectly demonstrates compliance with this provision.

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

Results of monitoring 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:**

At all times, including periods of startup, shutdown, and malfunction, the permittee 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 Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origins: DAQE -AN0108920011-09]. [R307-401-8(2)]

II.B.1.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

The 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.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:**

Emergency generators shall be used for electricity producing operation only during the periods when electric power from the public utilities is interrupted, or for regular maintenance of the generators. [Origin: DAQE-AN010892011-09]. [R307-401-8(1)(a)(BACT)]

II.B.1.c.1 **Monitoring:**

All operation logs shall be used to record the following information for each usage: dates(s), total hours used, and reason for usage.

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

Results of monitoring 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 Diesel Fuel Internal Combustion Engines (Red Rock).**

II.B.2.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

Opacity observations of emissions shall be conducted semi-annually in accordance with 40 CFR 60, Appendix A, Method 9.

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

Results of all monitoring shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

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

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

II.B.2.b **Condition:**

Emissions of NO_x shall be no greater than 10 gm/hp-hr for each engine. [Origins: DAQE - AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.2.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (g/HP-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 Executive Secretary to give the results in the specified units of the emission limitation.

(e) 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.

II.B.2.b.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

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

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.c **Condition:**

Total emissions of NO_x shall be no greater than 424 tons from two engines combined per rolling 12-month period. [Origins: DAQE -AN0108920011-09]. [R307-401-81((a))(BACT)]

II.B.2.c.1 **Monitoring:**

The emissions shall be determined on a rolling 12-month total. Within the first 10 days of each month a new 12-month total shall be calculated using data from the previous 12 months.

The following equation shall be used to calculate each month emissions in order to get rolling 12-month emissions from each engine:

Emissions (tons/month period) = (Power production in total kW-hrs for previous month) x (Most Recent Emission factor in gm/hp-hr) x (1 hp/0.7457 kW) x (1 lb/453.59 gm) x (1 ton/2000 lbs)

Total emissions shall be the sum of emissions from each internal combustion engine.

The number of kilowatt-hours generated by each engine shall be monitored continuously by a kilowatt-hour meter and recorded on a daily basis. Emission factors shall be derived from the most recent emission test results.

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

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

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

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

II.B.2.d **Condition:**

Emissions of CO shall be no greater than 2.4 gm/hp-hr for each engine. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.2.d.1 **Monitoring:**

Stack testing shall be performed as specified here:

(a) Frequency. Emissions shall be tested annually. Tests may also be required at the direction of the Executive Secretary at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. 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 10 shall be used to determine CO emissions;

(2) 40 CFR 60, Appendix A, Method 2 shall be used to determine stack gas velocity and volumetric flow rate.

(e) Calculations. To determine mass emission rates (g/HP-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 Executive Secretary to give the results in the specified units of the emission limitation.

(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.

II.B.2.d.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

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

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.e **Condition:**

Total emissions of CO shall be no greater than 101.8 tons from two engines combined per rolling 12-month period. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.2.e.1 **Monitoring:**

The emissions shall be determined on a rolling 12-month total. Within the first 10 days of each month a new 12-month total shall be calculated using data from the previous 12 months.

The following equation shall be used to calculate each month emissions in order to get rolling 12-month emissions from each engine:

Emissions (tons/month period) = (Power production in total kW-hrs for previous month) x (Most

Recent Emission factor in gm/hp-hr) x (1 hp/0.7457 kW) x (1 lb/453.59 gm) x (1 ton/2000 lbs)

Total emissions shall be the sum of emissions from each internal combustion engine.

The number of kilowatt-hours generated by each engine shall be monitored continuously by a kilowatt-hour meter and recorded on a daily basis. Emission factors shall be derived from the most recent emission test results.

II.B.2.e.2 **Recordkeeping:**

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

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

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

II.B.3 **Conditions on Diesel Generators/Engines (Bloomington).**

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

Visible emissions shall be no greater than 20 percent opacity. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

Opacity observations of emissions shall be conducted semi-annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.3.a.2 **Recordkeeping:**

Results of all monitoring shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.3.a.3 **Reporting:**

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

II.B.3.b **Condition:**

Emissions of CO shall be no greater than 30 lb/hr for each engine. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

Stack testing shall be performed as specified here:

(a) Frequency. Emissions shall be tested annually. Tests may also be required at the direction of the Executive Secretary at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. 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 10 shall be used to determine CO emissions;

(2) 40 CFR 60, Appendix A, Method 2 shall be used to determine stack gas velocity and volumetric flow rate.

(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 Executive Secretary to give the results in the specified units of the emission limitation.

(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.

II.B.3.b.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.3.b.3 **Reporting:**

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.c **Condition:**

Emissions of NO_x shall be no greater than 30 lb/hr for each engine. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) 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 Executive Secretary to give the results in the specified units of the emission limitation.

(e) 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.

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

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

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

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.d **Condition:**

Hours of operation shall be no greater than 6,328 hours per rolling 12-month period for all six engines combined. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

The permittee shall calculate the combined engine operating hours for a rolling 12-month period no later than 10 days after the end of that rolling 12-month period. Operating hours for each engine shall be determined from each engine's hour meter. The operating hours for each engine shall be added together to determine the combined operating hours for the 12-month period.

II.B.3.d.2 **Recordkeeping:**

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

II.B.3.d.3 **Reporting:**

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

II.B.3.e **Condition:**

The minimum stack height shall be no less than 21 feet above ground level for each engine. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

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

The annual certification required for this permit condition will serve as monitoring.

II.B.3.e.2 **Recordkeeping:**

The annual certification required for this permit condition shall be maintained as described in

Provision I.S.1 of the permit

II.B.3.e.3 **Reporting:**

In addition to the reporting requirements specified in Section I of this permit, the permittee shall certify with each annual certification report that each engine and stack compliance with the permit condition during the reporting year.

II.B.4 **Conditions on Natural Gas Turbine (Millcreek).**

II.B.4.a **Condition:**

Emissions of CO shall be no greater than 25 ppmv @ 15% O_2 and 20.37 lb/hr. [Origins: DAQE - AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.4.a.1 **Monitoring:**

Stack testing shall be performed as specified here:

(a) Frequency. Emissions shall be tested annually. Tests may also be required at the direction of the Executive Secretary at any time.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. 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 10 shall be used to determine CO emissions;

(2) 40 CFR 60, Appendix A, Method 2 shall be used to determine stack gas velocity and volumetric flow rate.

(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 Executive Secretary to give the results in the specified units of the emission limitation.

(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.

II.B.4.a.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.4.a.3 **Reporting:**

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b **Condition:**

Emissions of NO_x shall be no greater than 25 ppmv @ 15% O_2 and 33.5 lb/hr based on 30-day rolling average. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.4.b.1 **Monitoring:**

1. Stack testing shall be performed as specified here:

(a) Frequency. Emissions shall be tested annually. In addition, source shall be tested at any other time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary 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 Executive Secretary.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. 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 specified in NSPS subpart GG, shall be used to determine the nitrogen oxides;

(2) 40 CFR 60, Appendix A, Method 2 shall be used to determine stack gas velocity and volumetric flow rate;

(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 Executive Secretary to give the results in the specified units of the emission limitation.

(f) Production Rate During Testing. The operational rate during initial compliance testing shall be at the peak load, as an EPA-approved alternative to multiload testing specified in NSPS subpart GG, and shall be corrected to ISO conditions using the appropriate equations supplied by the manufacture.

2. The permittee shall continuously monitor the appropriate parameters to determine whether the affected unit is operating in the lean premixed (low-NO_x) combustion mode. These parameters may include percentage of full load, turbine exhaust temperature, combustion reference temperature, compressor discharge pressure, fuel and air valve positions, dynamic pressure pulsations, inlet guide vane (IGV) position, and flame detection or flame scanner condition. The acceptable values and ranges for all parameters monitored shall be specified in the monitoring plan required under 40 CFR 75.19 for the unit, and parameters shall be monitored during each subsequent operating hour.

3. The daily average of NO_x emissions shall be calculated once for each day and the 30-day rolling average shall be calculated by adding previous 30 days data on a daily basis.

II.B.4.b.2 **Recordkeeping:**

1. Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

2. The permittee shall keep all the records that include the name of all parameters monitored, the acceptable values and ranges for all parameters, and the values of all parameters. Additionally, the permittee shall keep records indicating whether the unit is operating in the premix mode for each given operating hour.

II.B.4.b.3 **Reporting:**

1. The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

2. The permittee shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR 60.7(c). An excess emission shall be any 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit. A period of monitor downtime shall be any unit operating hour in which any of the required parametric data are either not recorded or are invalid.

II.B.4.c **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.4.c.1 **Monitoring:**

In lieu of opacity monitoring, the report required for this permit condition will serve as monitoring.

II.B.4.c.2 **Recordkeeping:**

The annual certification required for this permit condition shall be maintained as described in Provision I.S.1 of the permit

II.B.4.c.3 **Reporting:**

In addition to the reporting requirements specified in Section I of this permit, the permittee shall certified each annual certification report that only pipeline quality natural gas is used as fuel during the reporting year.

II.B.4.d **Condition:**

Hours of operation shall be no greater than 2,000 hours (including startups and shutdowns) per rolling 12-month period. [Origins: DAQE -AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.4.d.1 **Monitoring:**

Operating hours shall be recorded using a meter or operations log. Hours shall be recorded at least once a day when the equipment operates. Monthly hours of operation shall be determined within the first 20 calendar days of each month, for the previous month, using operations logs or records. The total shall then be added to the previous 11 months total for a 12-month rolling total. Any adjustments to the total shall be fully explained and justified.

II.B.4.d.2 **Recordkeeping:**

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

II.B.4.d.3 **Reporting:**

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

II.B.4.e **Condition:**

Sulfur content of the fuel combusted shall be no greater than 0.8 percent by weight. [Origin: 40 CFR 60.333(b)]. [40 CFR 60 Subpart GG]

II.B.4.e.1 **Monitoring:**

In lieu of monitoring the total sulfur content of gaseous fuel combusted in the turbines, the permittee shall use one of the following sources of information to demonstrate that the gaseous fuel meets the definition of natural gas in 40 CFR 60.331(u):

(a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 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.

II.B.4.e.2 **Recordkeeping:**

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

II.B.4.e.3 **Reporting:**

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

II.B.5 **Conditions on New Natural Gas Turbines (Millcreek)**

II.B.5.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE- AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.5.a.1 **Monitoring:**

In lieu of opacity monitoring, the report required for this permit condition will serve as monitoring.

II.B.5.a.2 **Recordkeeping:**

The annual certification required for this permit condition shall be maintained as described in Provision I.S.1 of the permit.

II.B.5.a.3 **Reporting:**

In addition to the reporting requirements specified in Section I of this permit, the permittee shall certified each annual certification report that only pipeline quality natural gas is used as fuel during the reporting year.

II.B.5.b **Condition:**

Emissions of NO_x from each turbine shall be no greater than 2.5 ppmv @ 15% O_2 and 3.6 lb/hr based on 30-day rolling average. Emission of NO_x during startup and shutdown periods shall not exceed 46 lb/hr from each turbine. [Origin: DAQE- AN0108920011-09]. [R307-401-8(1)(a)(BACT), 40 CFR 60 Subpart KKKK]

II.B.5.b.1 **Monitoring:**

(a) The permittee shall install, certify, maintain, operate, and quality-assure a continuous emissions monitoring systems (CEMS) to determine compliance with the applicable NO_x limitations as specified below:

(1). Each NO_x and diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B of 40 CFR 60, except the 7-day calibration drift is based on unit operating days, not calendar days. Procedure 1 in appendix F of 40 CFR 60 is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to appendix A of 40 CFR 75 shall be acceptable. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

(2). As specified in 40 CFR 60.13(e)(2), during each full unit operating hours, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour.

(3). Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacture's instructions. Alternatively, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D of 40 CFR 75 shall be acceptable.

(4). Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacture's instructions.

(5). The permitte shall develop and keep on-site quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs above. For the CEMS and fuel flow meters, the permittee may satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of appendix B to 40 CFR Part 75.

(6) For purposes of identifying excess emissions, CEMS data shall be reduced to hourly averages as specified in 40 CFR 60.13(h).

(i) For each unit operating hour in which a valid hourly average, as described in paragraph (a)(2) of this section, is obtained for both NO_x and diluent, the data acquisition and handling system shall calculate and record the hourly NO_x emission rate in units of lb/MMBtu, using the appropriate equation from method 19 in appendix A of 40 CFR 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2, a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculation.

(ii) Correction of measured NO_x concentrations to 15 percent O_2 shall not be allowed.

(iii) If the permittee has installed a NO_x CEMS to meet the requirements of 40 CFR Part 75, only quality assured data from the CEMS shall be used to identify excess emission. Periods

where the missing data substitution procedures in subpart D of 40 CFR 75 are applied shall be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR60.7(c).

(iv) All required fuel flow rate, temperature, pressure, and megawatt data shall be reduced to hourly average. The calculated hourly average emission rates shall be used to assess excess emissions on a 4-hour rolling average basis.

(b) Each continuous emission monitoring system shall meet the Specifications and Test Procedures required by 40 CFR Part 75, Appendix A.

(c) The permittee shall implement Quality Assurance and Quality Control Procedures required by 40 CFR Part 75, Appendix B.

(d) The quality assurance requirements of R307-170, Continuous Emission Monitoring Systems Program, shall be used in addition to 40 CFR Part 75 procedures to fulfill data quality assurance requirements.

(e) The permittee shall calculate the 30-day rolling average by averaging all hourly emission data obtained from previous 30 days on a daily basis.

II.B.5.b.2 **Recordkeeping:**

Results of NO_x monitoring shall be recorded and maintained as required in R307-170, 40 CFR 60 subpart KKKK, 40 CFR 75 subpart F, and as described in Provision I.S.1 of this permit.

II.B.5.b.3 **Reporting:**

(a) The permittee shall comply with the reporting provisions in R307-170-9, 40 CFR 75 Subpart G, 40 CFR Subpart KKKK and all the reporting provisions contained in Section I of this permit.

(b) The permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

(1) An hour of excess emissions shall be any unit operating period in which the 4-hour or 30-day rolling average NO_x concentration exceeds applicable NSPS emission standard of 25 ppm (15% O_2) or 1.2 lb/MWh. A "4-hour rolling average NO_x emission rate" is the arithmetic average of the average NO_x emission rate in ppm or lb/MWH measured by the CEMS for a given hour and the three unit operating hour average NO_x emission rates immediately preceding that unit operating hour. The permittee shall calculate the rolling average if a valid NO_x emission rate is obtained for at least 3 of the 4 hours. A "30-day rolling average NO_x emission rate" is the arithmetic average of all hourly NO_x emission data in ppm or lb/MWh measured by the CEMS for a given day and the twenty-nine unit operating days average NO_x emission rates immediately preceding that unit operating day. A new 30-day average shall be calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30 unit operating days if a valid NO_x emission rate is obtained for at least 75 percent of all operating hours.

(2) A period of monitor downtime shall be any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO_2 or O_2 concentration, fuel flow rate, or megawatts.

(3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple

emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

(4) All reports of excess emissions and monitor downtime shall be postmarked by the 30th day following the end of each calendar quarter.

(c) The quarterly reports required in R307-170-9 and 40 CFR 75 Subpart G are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.5.c **Condition:**

Emissions of CO from each turbine shall be no greater than 6 ppmv at 15% O_2 and 5.21 lb/hr during normal operations and shall be no greater than 37 lb/hr during startup and shutdown. [Origin: DAQE-AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.5.c.1 **Monitoring:**

The emission of CO shall be monitored by continuous emission monitoring system (CEMS). The permittee shall calibrate, maintain, and operate a CEMS as required by R307-170 to determine compliance with CO concentration (ppmv) and CO mass emission rate (lb/hr). The emission rate (lb/hr) shall be calculated by multiplying the CO concentration and the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation. The CO concentration shall be determined from data generated by the CEMS. The quality assurance requirements of R307-170, Continuous Emission Monitoring Systems Program shall be used to fulfill data quality assurance requirements.

II.B.5.c.2 **Recordkeeping:**

Results of CO monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.5.c.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and all the reporting provisions contained in Section I of this permit. The quarterly reports required in R307-170-9 is considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.5.d **Condition:**

Combined 12- month rolling emissions from both natural gas turbines shall not exceed 33.3 tons for NO_x and 34.3 tons for CO. [Origin: DAQE-AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.5.d.1 **Monitoring:**

The emissions shall be determined on a rolling 12-month total. Within the first 10 days of each month, the total shall be calculated for each calendar month and added to the previous 11 months data.

Monthly emissions shall be the sum of emissions from each turbine and shall be calculated using the following equation:

Monthly emissions (tons) turbine heat input [MMBtu/month] x emission factor [lb/MMBtu) x (1 ton/2000 lbs)

Fuel consumption shall be determined by a fuel meter provided for each turbine or from CEMs data. Emission factors shall be as follows:

1. NO_x monthly average emission factor in lb/MMBtu shall be calculated from CEM-recorded data (ppmdv) based on 40 CFR Part 60 App. A. Method 19;

2. CO monthly average emission factor in lb/MMBtu shall be calculated from CEM-recorded data (ppmv) based on 40 CFR Part 60 App. A. Method 19.

II.B.5.d.2 **Recordkeeping:**

Records such as gas meter readings or CEMs data shall be kept on a continuous basis. Records shall be maintained as described in Provision I.S of this permit.

II.B.5.d.3 **Reporting:**

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

II.B.5.e **Condition:**

Fuel combusted shall not exceed potential sulfur emissions of 0.060 lb SO_2/MMBtu heat input. [Origin: DAQE-AN0108920011-09]. [40 CFR 60 Subpart KKKK]

II.B.5.e.1 **Monitoring:**

In lieu of monitoring the total sulfur content of gaseous fuel combusted in the turbines, the permittee shall use one of the following sources of information to demonstrate that the gaseous fuel meets the definition of natural gas in 40 CFR 60.331(u):

(a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 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.

II.B.5.e.2 **Recordkeeping:**

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

II.B.5.e.3 **Reporting:**

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

II.B.6 **Conditions on Blackstart Generator (Millcreek)**

II.B.6.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Origin: DAQE-AN0108920011-09]. [R307-401-8(1)(a)(BACT)]

II.B.6.a.1 **Monitoring:**

Opacity observations of emissions shall be conducted semi-annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.6.a.2 **Recordkeeping:**

Results of all monitoring shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.a.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.

II.E **Source-specific Definitions.**
(R307-415-6a)

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 **Utah Acid Rain Program Authority.**

Authority to implement the Acid Rain Program is contained in R307-417, Permits: Acid Rain Sources, and R307-415-6a(4), Standard permit requirements [for operating permits].

IV.B **Permit Requirements.**

IV.B.1 The designated representative of the source and each affected unit at the source shall:

IV.B.1.a Submit a complete Acid Rain permit application (including a compliance plan) under R307-417 and 40 CFR Part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

IV.B.1.b Submit in a timely manner any supplemental information that the Executive Secretary determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

IV.B.2 The owners and operators shall:

IV.B.2.a Operate each affected unit at the source in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Executive Secretary; and

IV.B.2.b Have an Acid Rain Permit.

IV.C **Sulfur Dioxide Requirements.**

IV.C.1 The owners and operators of each affected unit at the source shall:

IV.C.1.a Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and

IV.C.1.b Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

IV.C.2 Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

IV.C.3 An affected unit shall be subject to the requirements under Provision IV.C.1. of the sulfur dioxide requirements as follows:

IV.C.3.a Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

IV.C.3.b Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR 72.6(a)(3).

IV.C.4 Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

IV.C.5 An allowance shall not be deducted in order to comply with the requirements under Provision IV.C.1.a. of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

IV.C.6 An allowance allocated by the Administrator, USEPA, under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

IV.C.7 An allowance allocated by the Administrator, USEPA, under the Acid Rain Program does not constitute a property right.

IV.D **Nitrogen Oxides Requirements.**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxide.

IV.E **Monitoring Requirements.**

IV.E.1 The owners and operators and, to the extent applicable, designated representative of each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR Parts 74, 75, and 76.

IV.E.2 The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

IV.E.3 The requirements of 40 CFR Parts 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

IV.F **Recordkeeping and Reporting Requirements.**

IV.F.1 Unless otherwise provided, the owners and operators for each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator, USEPA, or Executive Secretary:

IV.F.1.a The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

IV.F.1.b All emissions monitoring information, in accordance with 40 CFR Part 75;

IV.F.1.c Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

IV.F.1.d Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

IV.F.2 The designated representative of each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75.

IV.G **Excess Emissions Requirements.**

IV.G.1 The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan to the Administrator, USEPA, as required under 40 CFR Part 77.

IV.G.2 The owners and operators of an affected unit that has excess emissions in any calendar year shall:

IV.G.2.a Pay without demand the penalty required, and pay upon demand the interest on that penalty, to the Administrator, USEPA, as required by 40 CFR Part 77; and

IV.G.2.b Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

IV.H **Liability.**

IV.H.1 Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or a written exemption under R307-417, 40 CFR 72.7 or 40 CFR 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

IV.H.2 Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

IV.H.3 No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

IV.H.4 Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

IV.H.5 Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

IV.H.6 Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not the owners and operators, owners or operators, or the designated representative.

IV.H.7 Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

IV.H.8 The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

IV.I **Effect on Other Authorities.**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

IV.I.1 Except as expressly provided in Title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative from compliance with any other provision of the Act, including the provisions of Title I of the Act relating to applicable National Ambient Air Quality Standards or the Utah State Implementation Plan;

IV.I.2 Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

IV.I.3 Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

IV.I.4 Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

IV.I.5 Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

REVIEWER COMMENTS

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

Incorporates	AO DAQE-AN0108920011-09 dated April 27, 2009

1. Comment on an item originating in the renewal permit (2008) regarding Permitted Source
   CAM applicability: CAM has been evaluated for this renewal application and it is not applicable to the source. [Last updated August 22, 2008]

2. Comment on an item originating in this permit (2009) regarding Permitted Source
   Changes in 2009:
   (1) Provision II.B.5: two new natural gas turbines approved in DAQE-AN010892-08 and associated requirements have been added into the permit.
   (2) Provision II.B.6: One caterpillar diesel generator has been moved from Bloomington site to Millcreek site (listed as "blackstart generator") and will only be used during emergency power outages. Therefore, the test requirements have been changed to visible emission limitation only.
   (3) An emergency generator at Red Rock was mistakenly listed at Millcreek in the previous version of Title V permit and the correction is made (II.A.6). In addition, the limits are streamlined and all requirements (Provision II.B.5 in the previous version of Title V permit) are dropped. [Last updated May 11, 2009]

3. Comment on an item originating in this permit regarding Permitted Source
   Sulfur content of fuel oil burned on site: R307-203-1 requires sulfur content less than 0.85 lbs/MMBtu heat input for fuel oil burned. The requirement has been replaced by a BACT requirement that is more stringent (limit sulfur content to 0.05 % sulfur by weight). [Last updated April 29, 2003]

4. Comment on an item originating in this permit regarding Natural Gas Turbine (Millcreek)
   LME: In lieu of CEM monitoring, the LME methodology under 40 CFR 75.19 is permitted to use for monitoring NO_x emission by EPA on 10/20/05. [Last updated October 20, 2005]

Final Permit Review Checklist

This checklist is to be used to review all final operating permits prior to signing.
The completed checklist is to be submitted to the Operating Permit section manager.

Source name: St. George City Power: Red Rock Power Generation Station **Permit ID**: 5300011003
OPP0108920013

_____ 1. Cover page only is on letterhead paper
_____ 2. Permit ID is valid (not missing, not "1", ends in "00x" where "x" is the revision number)
_____ 3. Permit date and revision date (if applicable) are correct **Issue / revision date:8/27/2008**
_____ 4. Source name, address and SIC are correct
_____ 5. Abstract includes brief description of process and states why the source is subject to Part 70 (NSPS equipment, pollutants for which the source is major, etc.)
_____ 6. Operating permit history shows correct action, date and description of action
_____ 7. Table of contents is accurate
_____ 8. Permit footer information matches cover page
_____ 9. Permit renewal date is correct **Renewal Date: 2/27/2013**
_____ 10. Annual compliance certification date is correct **First certification due date: 10/1/2008**
_____ 11. Definition of "prompt" for deviation reporting is correct **Prompt means 14** days
_____ 12. All required emission units are included, and grandfathered units identified
_____ 13. Permit text is complete and legible, and superscripts/subscripts are correct
_____ 14. List of supporting approval orders and documents is included and is complete and accurate
_____ 15. If title IV applies, acid rain portion of permit is included
_____ 16. Reviewer comments are included as required to show basis for monitoring, etc.
_____ 17. Permit has been spell-checked and read for grammatical errors
_____ 18. OPP peer review completed
_____ 19. NSR review completed (N/A if no NSR review needed)
_____ 20. Compliance review completed
_____ 21. Draft Permit was sent to public comment (y / n) Public review start date:AO started 3/16/09
_____ 22. Proposed Permit submitted for EPA review (y / n) EPA review start date: 5/1/2009
_____ 23. Other comments on this permit: **No comments were received from EPA.**

This permit has been prepared in accordance with current administrative requirements as provided in R307-415 and with current OPP policy and guidance.

Permit writer signature:_____ Date:_____

Section manager signature:_____ Date:_____

Operating Permit Source File Checklist

_____ **1.** **Receipt letter (if source-initiated permit action) or**
Source notification (if DAQ initiated permit action)

_____ **2.** **EPA / Affected state(s) notice of modification (minor modification only)**

_____ **3.** **Completeness determination (initial app, significant mod, renewal only)**
- _____ A) Checklist
- _____ B) "Complete" notification
- _____ C) "Incomplete" notification (if any)

_____ **4.** **Public comment paperwork (initial app, significant mod, renewal only)**
- _____ A) Draft permit checklist
- _____ B) DRAFT permit
- _____ C) Notice to paper(s)
- _____ D) Receipt from paper(s) (i.e., affidavit of publication)
- _____ E) Public hearing information (if any)
- _____ F) Comments received (if any)
- _____ G) Responses to comments (if any)

_____ **5.** **Affected state notifications (initial app, significant mod, renewal only)**

_____ **6.** **EPA comment paperwork (initial app, significant mod, renewal only)**
- _____ A) Submittal to EPA
  - ___i) Letter
  - ___ii) PROPOSED permit
  - ___iii) Other info sent to EPA that is not already in file
- _____ B) Receipt of delivery to EPA, stapled to submittal letter
- _____ C) EPA comments (if any)
- _____ D) Response to EPA comments (if any)

_____ **7.** **Final permits**
- _____ A) Final permit checklist completed
- _____ B) FINAL permit with letter of transmittal
- _____ C) Reviewer comments
- _____ D) Initial Permit Application
- _____ E) Update letters/packages (if any)
- _____ F) Other working file contents (RO designations, etc)
- _____ G) Disk with telecommute data for source and WP file of permit
- _____ H) Copy of letter of transmittal to EPA