



State of Utah

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*Governor*

GARY HERBERT  
*Lieutenant Governor*

Department of  
Environmental Quality

Amanda Smith  
*Acting Executive Director*

DIVISION OF AIR QUALITY  
Cheryl Heying  
*Director*

12495

**Title V Operating Permit**

**PERMIT NUMBER:** 3500527002  
**DATE OF PERMIT:** June 15, 2009  
Date of Last Revision: June 15, 2009

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

**Name of Permittee:**

CER Generation II, LLC  
5935 West 4700 South  
West Valley City UT 84128

**Permitted Location:**

CER Generation II, LLC: West Valley Power  
Plant  
5935 West 4700 South  
West Valley City UT 84128

UTM coordinates: 412,828 m Easting, 4,502,036 m Northing  
SIC code: 4911 (Electric Services)

UTAH AIR QUALITY BOARD

By:

Prepared By:

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M. Cheryl Heying, Executive Secretary

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Jennifer He

## **ENFORCEABLE DATES AND TIMELINES**

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

Annual Certification Due: April 1, 2010 and on that date of every calendar year that this permit is in force.

Renewal application due: December 15, 2013

Permit expiration date: June 15, 2014

Definition of “prompt”: written notification within 14 days.

### **ABSTRACT**

The Constellation Energy Resources (CER) Generation II, LLC West Valley Power Plant is a natural gas-fired electric generating plant consisting of five General Electrical LM6000 PC Sprint natural gas simple cycle turbines. Each turbine has power output rated at 43.4 MW and is equipped with water injection, evaporative spray mist inlet air cooling, Selective Catalytic Reduction (SCR) catalyst and CO oxidation catalyst. The plant is located in Salt Lake County, a PM<sub>10</sub> nonattainment area and an ozone maintenance area. The plant is a Phase II Acid Rain source and a major source of NO<sub>x</sub> and CO. New Source Performance Standard (NSPS) Subpart GG applies to the turbines.

## **OPERATING PERMIT HISTORY**

<b>Permit/Activity</b>	<b>Date Issued</b>	<b>Recorded Changes</b>
Title V renewal application (Project #OPP0124950006)	06/15/2009	Changes: No changes have been made in the renewal permit.
Title V significant modification (Project #OPP0124950002)	11/25/2004	Changes: to include the amendments (published on July 8, 2004) to the standards of performance for stationary gas turbines in 40 CFR Part 60, subpart GG in the permit.
Title V initial application (Project #OPP0124950001)	3/8/2004	

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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 **Natural Gas Simple Cycle Turbine EU#1**  
Natural gas simple cycle turbine, output rate at 43.4 MW and maximum firing rate at 389,186 scf/hr, with water injection, evaporative spray mist inlet air cooling, NO<sub>x</sub> SCR catalyst and CO oxidation catalyst.
- II.A.3 **Natural Gas Simple Cycle Turbine EU#2**  
Natural gas simple cycle turbine, output rate at 43.4 MW and maximum firing rate at 389,186 scf/hr, with water injection, evaporative spray mist inlet air cooling, NO<sub>x</sub> SCR catalyst and CO oxidation catalyst.
- II.A.4 **Natural Gas Simple Cycle Turbine EU#3**  
Natural gas simple cycle turbine, output rate at 43.4 MW and maximum firing rate at 389,186 scf/hr, with water injection, evaporative spray mist inlet air cooling, NO<sub>x</sub> SCR catalyst and CO oxidation catalyst.
- II.A.5 **Natural Gas Simple Cycle Turbine EU#4**  
Natural gas simple cycle turbine, output rate at 43.4 MW and maximum firing rate at 389,186 scf/hr, with water injection, evaporative spray mist inlet air cooling, NO<sub>x</sub> SCR catalyst and CO oxidation catalyst.
- II.A.6 **Natural Gas Simple Cycle Turbine EU#5**  
Natural gas simple cycle turbine, output rate at 43.4 MW and maximum firing rate at 389,186 scf/hr, with water injection, evaporative spray mist inlet air cooling, NO<sub>x</sub> SCR catalyst and CO oxidation catalyst.
- II.A.7 **Natural Gas Simple Cycle Turbine Group**  
Includes EUs #1 through #5.
- 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, the permittee shall, to the extent practicable, maintain and operate the affected emission unit, 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. [Origin: DAQE-282-02 & 40 CFR 60.11(d)]. [R307-401-8(2), 40 CFR 60 Subpart A]

- II.B.1.a.1           **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.a.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.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:**
- The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Origin: 40 CFR 82.150(b)]. [40 CFR 82 Subpart F]
- II.B.1.b.1           **Monitoring:**
- The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.
- II.B.1.b.2           **Recordkeeping:**
- All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.
- II.B.1.b.3           **Reporting:**
- All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.
- II.B.2           **Conditions on Natural Gas Simple Cycle Turbine Group.**
- II.B.2.a           **Condition:**
- Visible emissions shall be no greater than 10 percent opacity from each affected unit. [Origin: DAQE-282-02]. [R307-401-8(1)(a)(BACT)]
- II.B.2.a.1           **Monitoring:**
- In lieu of opacity monitoring, the report required for this permit condition will serve as monitoring.
- II.B.2.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.2.a.3 Reporting:**
- In addition to the reporting requirements specified in Section I of this permit, the permittee should certified each annual certification report that only pipeline quality natural gas is used as fuel during the reporting year.
- II.B.2.b Condition:**
- Sulfur content of any fuel burned shall be no greater than 0.8 percent by weight (8000 ppmw) from each affected unit. [Origin: 40 CFR 60.333(b)]. [40 CFR 60 Subpart GG]
- II.B.2.b.1 Monitoring:**
- In lieu of monitoring the total sulfur content of gaseous fuel combusted in the turbines, the permittee should 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.2.b.2 Recordkeeping:**
- Records shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.2.b.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.2.c Condition:**
- Emissions of CO from each individual turbine shall be no greater than 10 ppmdv (15% O<sub>2</sub>, dry) based on 30-day rolling average under steady state operation (not including startup and shutdown). [Origin: DAQE-282-02]. [R307-401-8(1)(a)(BACT)]
- II.B.2.c.1 Monitoring:**
- The emission of CO shall be monitored by continuous emission monitoring system (CEMS) consisting of CO and O<sub>2</sub> monitors. The O<sub>2</sub> monitor shall be used to adjust the measured CO concentrations to 15% O<sub>2</sub>. The permittee shall calibrate, maintain, and operate a CEMS as required by R307-170 to determine compliance with CO concentration. The quality assurance requirements of R307-170, Continuous Emission Monitoring Systems Program shall be used to fulfill data quality assurance requirements. The daily average of CO 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.2.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.2.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.2.d Condition:**

Total emissions of CO from all five turbines shall be no greater than 43.75 lbs/hour (15% O<sub>2</sub>, dry) based on 30-day rolling average under steady state operation (not including startup and shutdown). [Origin: DAQE-282-02]. [R307-401-8(1)(a)(BACT)]

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

The emission rate (lb/hr) shall be calculated by multiplying the CO concentration (ppmdv) generated from CEMs 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 daily average of CO emission (lb/hr) shall be calculated for each turbine and the daily totals of CO emissions from five turbines shall be calculated by adding data from five turbines once for each day. 30-day rolling average shall be calculated by adding previous 30 days data on a daily basis.

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

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

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

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

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

Emission of NO<sub>x</sub> from each individual turbine shall be no greater than 5 ppmdv (15% O<sub>2</sub>, dry) based on 30 day rolling average under steady state operation (not including startup and shutdown) and shall be no greater than 100 ppmdv (15% O<sub>2</sub>, dry) at any time. [Origin: DAQE-282-02]. [R307-401-8(1)(a)(BACT), 40 CFR 60 Subpart GG(60.322)]

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

(a) The permittee should install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO<sub>x</sub> and O<sub>2</sub> monitors to determine compliance with the applicable NO<sub>x</sub> limitations. The CEMS shall be installed, certified, maintained and operated as follows:

(1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO<sub>x</sub> and diluent monitors may be performed individually or on a combined basis, i.e., the relative

accuracy tests of the CEMS may be performed either:

- (i) On a ppm basis (for NO<sub>x</sub>) and a percent O<sub>2</sub> basis for oxygen; or
- (ii) On a ppm at 15 percent O<sub>2</sub> basis.

(2) As specified in 40 CFR 60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording)

for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained 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 to validate the hour.

(3) For purposes of identifying excess emissions, CEMS data must 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<sub>x</sub> and diluent, the data acquisition and handling system must calculate and record the hourly NO<sub>x</sub> emissions in the units of percent NO<sub>x</sub> by volume, dry basis, corrected to 15 percent O<sub>2</sub> and International Organization for Standardization (ISO) standard conditions (if required as given in 40 CFR 60.335(b)(1)). For any hour in which the hourly average O<sub>2</sub> concentration exceeds 19.0 percent O<sub>2</sub>, a diluent cap value of 19.0 percent O<sub>2</sub> may be used in the emission calculations.

(ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (Ho), minimum ambient temperature (Ta), and minimum combustor inlet absolute pressure (Po) into the ISO correction equation.

(iii) If the permittee has installed a NO<sub>x</sub> CEMS to meet the requirements of 40 CFR Part 75, and is continuing to meet the ongoing requirements of 40 CFR Part 75, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR Part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in Sec. 60.7(c).

(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 daily average of NO<sub>x</sub> emissions shall be calculated everyday and the 30-day rolling average shall be calculated by adding previous 30 days data on a daily basis.

#### II.B.2.e.2

##### **Recordkeeping:**

Results of NO<sub>x</sub> monitoring shall be recorded and maintained as required in R307-170, 40 CFR 60 subpart GG, 40 CFR 75 subpart F, and as described in Provision I.S.1 of this permit.

#### II.B.2.e.3

##### **Reporting:**

(a) The permittee shall comply with the reporting provisions in R307-170-9, 40 CFR 75 Subpart G, 40 CFR Subpart GG 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 hour in which the 4-hour rolling average NO<sub>x</sub> concentration exceeds applicable NSPS emission standard of 100 ppm<sub>dv</sub> (15% O<sub>2</sub>, dry). A "4-hour rolling average NO<sub>x</sub> concentration" is the arithmetic average of the average NO<sub>x</sub> concentration measured by the CEMS for a given hour (corrected to 15 percent O<sub>2</sub> and, if required under 40 CFR 60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO<sub>x</sub> concentrations immediately preceding that unit operating hour.

(2) A period of monitor downtime shall be any unit operating hour in which sufficient data are

not obtained to validate the hour, for either NO<sub>x</sub> concentration or diluent (or both).

(3) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period. The ambient conditions is not required if the permittee opt to use the worst case ISO correction factor as specified in 40 CFR 60.334(b)(3)(ii).

(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.2.f Condition:**

Total emissions of NO<sub>x</sub> from all five turbines shall be no greater than 37 lbs/hour (15% O<sub>2</sub>, dry) based on 30 day rolling average under steady state operation (not including startup and shutdown). [Origin: DAQE-282-02]. [R307-401-8(1)(a)(BACT)]

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

The NO<sub>x</sub> emission rate (lb/hr) shall be calculated by multiplying the NO<sub>x</sub> concentration (ppmdv) generated from CEMs 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 daily average of NO<sub>x</sub> emission rate (lb/hr) shall be calculated for each turbine and the daily total emissions shall be calculated by adding data from five turbines once for each day. 30-day rolling average shall be calculated by adding previous 30 days data on a daily basis.

**II.B.2.f.2 Recordkeeping:**

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

**II.B.2.f.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.**

The following definitions apply to the permittee. They include terms not defined in state or federal rules or clarify or expand on existing definitions.

**II.E.1 Startup.** Startup begins when natural gas is fed to the turbine with the intent of combusting the fuel to generate electricity.

**II.E.2 Shutdown.** Shutdown begins at the cessation of natural gas flow to the turbines.

**II.E.3 Downtime.** Downtime is that time between the end of shutdown and the beginning of startup.

**II.E.4 Maintenance Outage.** The removal of a unit from service availability to perform work on specific components that can be deferred beyond the end of the next weekend, but requires the equipment be removed from service before the next planned outage. Typically, a Maintenance Outage may occur anytime during the year, have a flexible start date, and may or may not have a predetermined duration.

**II.E.5 Planned Outage.** The removal of a unit from service availability for inspection and/or general overhaul of one or more major equipment groups. This outage usually is scheduled well in advance.

### **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<sub>x</sub> 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:

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Incorporates	AO DAQE-282-02 dated April 28, 2002
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1. Comment on an item originating in the significant modification (2004) regarding Permitted Source Amendments to 40 CFR 60 subpart GG (7/8/2004): Amendments are included in this modification as follow:
  - a) Fuel nitrogen monitoring is not required because the fuel-bound nitrogen allowance is not utilized;
  - b) Sulfur monitoring is not required if the permittee provides the evidence required by 40 CFR 60.334(h)(3) that the gaseous fuel combusted in the turbines meets the definition of natural gas in 40 CFR 60.331(u);
  - c) Monitoring of water-to-fuel ratio is not required, since the NO<sub>x</sub> and O<sub>2</sub> CEMS are used to monitor NO<sub>x</sub> emission.
  - d) For excess emission report required under subpart GG, the averaging time period is increased from one hour to 4 hours.

In addition, requirement under 40 CFR 75 has been removed from CO CEM. Since CO CEM is not regulated under 40 CFR 75. [Last updated 9/29/2004]

2. Comment on an item originating in Condition 22 of DAQE-282-02 regarding Permitted Source Emergency Plan: The emergency plan was submitted with the original NOI for the AO issued on June 15, 2001 and is in the source file with the NOI. The permittee also submitted a recent plan to cover Turbine#5 dated July 8, 2003. Therefore, this condition is not carried into the Title V permit. [Last updated 12/16/2003]
3. Comment on an item originating in this permit regarding Permitted Source Renewal Permit (2009): CAM is not applicable to the renewal permit. There are no changes in the renewal permit [Last updated February 18, 2009]
4. Comment on an item originating in Condition 18 of DAQE-282-02 regarding Natural Gas Simple Cycle Turbine Group  
CEMs Monitoring Plan: CEMs monitoring plan was submitted with the original NOI for the AO issued on June 15, 2001 and is in the source file with the NOI. Therefore, this condition is not carried into the Title V permit. [Last updated 12/16/2003]
5. Comment on an item originating in DAQE-282-02 regarding Natural Gas Simple Cycle Turbine Group  
Fuel Restriction on Turbines: Condition 14 of the AO requires that only pipeline quality natural gas be used as a fuel in the turbines. Since natural gas is the only fuel available at the site and the only fuel these units can burn, this condition is not carried into the Title V permit. [Last updated 12/16/2003]
6. Comment on an item originating in DAQE-282-02 & 40 CFR Subpart GG regarding Natural Gas Simple Cycle Turbine Group  
Initial testing: Initial stack tests have been performed on all five turbines and the performance test required under 40 CFR 60.335(c) has been met for all five turbines [Last updated 3/1/2004]