

**CLARK COUNTY**  
DEPARTMENT OF AIR QUALITY  
AND ENVIRONMENTAL MANAGEMENT  
*500 South Grand Central Parkway, Box 555210, Las Vegas, Nevada 89155*  
**Part 70 Operating Permit**  
**Source: 7**  
Issued in accordance with the  
Clark County Air Quality Regulations (AQR)

**ISSUED TO: NEVADA POWER COMPANY  
CLARK GENERATING STATION**

**SOURCE LOCATION:**

5640 Stephanie St.  
Las Vegas, NV 89122  
T21S, R62E, S28  
Hydrographic Basin Number: 212

**COMPANY ADDRESS:**

P.O. Box 98910, MS # 30  
Las Vegas, NV 89151-0001

**NATURE OF BUSINESS:**

SIC Code: 4911 – Electric Services  
NAICS Code: 221112 – Fossil Fuel Electric Power Generation

**RESPONSIBLE OFFICIAL:**

Name: Kevin Geraghty  
Title: Vice President, Generation, NV Energy  
Phone: (702) 402-5662  
Fax Number: (702) 402-0835

**Permit Issuance: November 3, 2009**

**Expiration Date: November 2, 2014**

**ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY AND ENVIRONMENTAL  
MANAGEMENT**



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Tina Gingras  
Assistant Director, DAQEM

## EXECUTIVE SUMMARY

Clark Station is located at 5640 Stephanie St., Las Vegas, Nevada, 89122, in the Las Vegas Valley airshed, hydrographic basin number 212, in Township 21S, Range 62E, Section 28. Hydrographic basin 212 is nonattainment for CO, PM<sub>10</sub>, and ozone (8-hour), and attainment for all other regulated air pollutants. The source is major for PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and a TCS (NH<sub>3</sub>) and a minor source for HAP emissions. The PTE for NH<sub>3</sub>, listed as a TCS, is from the 12 peaker turbines (EUs: A27 through A38), currently permitted by an NSR ATC (ATC/OP 00007 Modification 4 Revision 1 (03/20/07)). No conditions for these units are included in this Part 70 Operating Permit, as these units will be included in a future Title V Revision.

DAQEM has Title V permitting responsibilities for the five combustion gas turbines (known as Turbine Units 4 through 8), two cooling towers, and ancillary equipment at the source. The permitting history of this source reflects the changes in air quality permitting practices both at the local and federal levels in response to changing environmental regulations. This is a revision and renewal of the Part 70 Operating Permit for this source. The fuel oil burning option is being removed from Turbine Units 5 through 8. Consent Decree requirements pertaining to the Ultra Low NO<sub>x</sub> Burners (ULNB) are also being added.

All generating and support processes at the site are grouped under SIC 4911 – Electric Services (NAICS: 22111 - Electric Power Generation).

The following table summarizes the source potential to emit for each regulated air pollutant from all emission units for which an ATC has been issued. These PTE values are not source emission limits but are used to determine the major source status for each pollutant.

Pollutant	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	HAP	TCS
Tons/year	792.46	2,465.93	1,850.93	48.50	216.50	8.51	85.44

The following table summarizes the source PTE for each regulated air pollutant for all emission units addressed by this Part 70 operating permit. These emission rates are for reference purposes only and are not intended to be enforced by direct measurement unless otherwise noted in Section III of this permit.

Pollutant	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	HAP	TCS
Tons/year	683.23	2,092.93	1,712.00	36.35	182.13	5.45	0.00
Major Source Thresholds	70	50	70	100	50	10/25 <sup>1</sup>	1.0

<sup>1</sup>Ten tons for any individual HAP or 25 tons for combination of all HAPs.

Pursuant to AQR 19.4.2, all terms and conditions in Sections I through V and the Attachment in this permit are federally enforceable unless explicitly denoted otherwise.

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## I. ACRONYMS

**Table I-1: List of Acronyms**

Acronym	Term
AQR	Clark County Air Quality Regulations
AST	Aboveground Storage Tank
ATC	Authority to Construct
ATC/OP	Authority to Construct/Operating Permit
CAAA	Clean Air Act, as amended, or Clean Air Act Amendments
CE	Control Efficiency
CEMS	Continuous Emissions Monitoring System
CF	Control Factor
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CPI	Urban Consumer Price Index
DAHS	Data Acquisition and Handling System
DAQEM	Clark County Department of Air Quality & Environmental Management
DEM	Digital Elevation Model
EF	Emission Factor
EO	Executive Order
EPA	United States Environmental Protection Agency
EU	Emission Unit
HAP	Hazardous Air Pollutant
HP	Horse Power
HRSG	Heat Recovery Steam Generating Unit
MMBtu	Millions of British Thermal Units
NEI	Net Emission Increase
NL	No Limit
NO <sub>x</sub>	Nitrogen Oxides
NOV	Notice of Violation
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM <sub>10</sub>	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RATA	Relative Accuracy Test Audit
scf	Standard Cubic Feet
SIP	State Implementation Plan
SO <sub>x</sub>	Sulfur Oxides
TCS	Toxic Chemical Substance
TDS	Total Dissolved Solids
TSD	Technical Support Document
ULNB	Ultra Low NO <sub>x</sub> Burner
VOC	Volatile Organic Compound

## II. GENERAL CONDITIONS

### A. GENERAL REQUIREMENTS

1. The Permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act (Act) and is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application. *[AQR 19.4.1.6.a]*
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. *[AQR 19.4.1.5]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. Failure to pay Part 70 permit fees may result in citations or suspensions or revocation of the Part 70 Permit. *[AQR 19.4.1.7]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 19.4.1.6.d]*
5. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to interfere with the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by the AQR. *[AQR 5.1]*
6. The Permittee owning, operating, or in control of any equipment or property who shall cause, permit, or participate in any violation of the AQR shall be individually and collectively liable to any penalty or punishment imposed by and under the AQR. *[AQR 8.1]*
7. The Permittee shall continue to comply with applicable requirements for which the Permittee is in compliance. *[AQR 19.3.3.8.b]*
8. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. *[AQR 19.3.2]*
9. The Permittee may request confidential treatment of any records in accordance with AQR Section 19. Emission data, standards or limitations [all terms as defined in 40 CFR 2.301(a)] or other information as specified in 40 CFR 2.301 shall not be considered eligible for confidential treatment. The Administrator and the Control Officer shall each retain the authority to determine whether information is eligible for confidential treatment on a case-by-case basis. *[AQR 19.3.1.3 and 40 CFR 2.301]*

### B. MODIFICATION, REVISION, RENEWAL REQUIREMENTS

1. The Permittee shall not make a modification, as defined in AQR Section 0, to the existing source prior to receiving an Authority to Construct (ATC) from the Control Officer. *[AQR 12.1.1.1]*

2. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for the permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[AQR 19.4.1.6.c]*
3. Any request for a permit revision must comply with the requirements of AQR Section 19. *[AQR 19.5.5.1]*
4. The Permittee shall not build, erect, install or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR 60.12]*
5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit, provided the Source conforms to the applicable requirements of AQR Sections 12 and 58. *[AQR 19.4.1.11]*
6. For purposes of permit renewal, the Permittee shall submit a timely and complete application. A timely application is one submitted between six (6) months and 18 months prior to the date of permit expiration. *[AQR 19.3.1.1.c]*
7. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with AQR Subsections 19.3.1.1.c and 19.5.2 in which case the permit shall not expire and all terms and conditions of the permit shall remain in effect until the renewal permit has been issued or denied. *[AQR 19.5.3.2]*

### **C. REPORTING/NOTIFICATIONS/PROVIDING INFORMATION REQUIREMENTS**

1. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Administrator along with a claim of confidentiality. *[AQR 19.4.1.6.e]*
2. The Permittee shall allow the Control Officer or an authorized representative, upon presentation of credentials:
  - a. entry upon the Permittee's premises where the source is located, or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
  - b. access to inspect and copy, at reasonable times, any records that must be kept under conditions of the permit;
  - c. access to inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

- d. access to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. *[AQR 4.3 and 19.4.3.2]*
3. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*

#### **D. COMPLIANCE REQUIREMENTS**

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit. *[AQR 19.4.1.6.b]*
2. Any person who violates any provision of this operating permit, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by DAQEM is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board/Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1]*
3. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review as provided in Chapter 233B of Nevada Revised Statutes (NRS). *[AQR 9.12]*
4. The Permittee of any stationary source or emission unit that fails to demonstrate compliance with the emissions standards or limitations shall submit a compliance plan to the Control Officer pursuant to AQR Section 10. *[AQR 10.1]*
5. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1.7]*
6. Requirements for compliance certification with terms and conditions contained in the operating permit, including emission limitations, standards, or work practices, are as follows:

- a. the Permittee shall submit compliance certifications annually in writing to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for the previous calendar year will be due on January 30 of each year;
  - b. compliance shall be determined in accordance with the requirements detailed in AQR 19.4.1.3, record of periodic monitoring, or any credible evidence; and
  - c. the compliance certification shall include:
    - i. identification of each term or condition of the permit that is the basis of the certification;
    - ii. the Permittee's compliance status and whether compliance was continuous or intermittent;
    - iii. methods used in determining the compliance status of the source currently and over the reporting period consistent with Subsection 19.4.1.3; and
    - iv. other specific information required by the Control Officer to determine the compliance status of the source. *[AQR 19.4.3.5]*
7. The Permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1]*
- a. The annual emissions inventory shall be received by DAQEM no later than March 31 after the reporting year.
  - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.
8. The Permittee shall report to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) any upset, breakdown, malfunction, emergency or deviation which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below *[AQR 25.2]*:
- a. within one (1) hour of the onset of the event, the report shall be communicated by phone (702) 455-5942, or by fax (702) 383-9994.
  - b. as soon as practicable but not exceeding ten (10) calendar days from the onset of the event, the detailed written report shall be submitted. Such reports shall include the probable cause of the excess emissions, emission calculations and any corrective actions taken.
9. The Permittee shall report to the Control Officer deviations that do not result in excess emission, with the quarterly reports. Such reports shall include the probable cause of deviations and any corrective actions or preventative measures taken. *[AQR 19.4.1.3]*

10. The Permittee shall include a certification of truth, accuracy, and completeness by a responsible official when submitting any application form, report, or compliance certification pursuant to this Operating Permit. This certification and any other certification required shall state, “Based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.” This statement shall be followed by the signature and printed name of the responsible official certifying compliance and the date of signature. *[AQR 19.3.4]*

#### **E. PERFORMANCE TESTING REQUIREMENTS**

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the DAQEM regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. The Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) shall be given a copy of the test results in writing and signed by the person responsible for the tests. *[AQR 4.5]*
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.6]*
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) not less than 45 nor more than 90 days prior to the anticipated date of the performance test. *[AQR 14.10]*
4. The Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA. *[AQR 14.1 and 40 CFR 60.8(b)]*
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. *[AQR 14.12]*
6. The Control Officer may require additional or more frequent performance testing. *[AQR 4.5]*

### III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

#### A. EMISSION UNITS

The stationary source covered by this Part 70 OP is defined to consist of the emission units and associated appurtenances summarized in Table III-A-1. [AQR 19.2.1 and 19.3.3.3]

**TABLE III-A-1: List of Emission Units**

EU	Description	SCC
A00704D	General Electric 7B (7000), Simple Cycle Combustion Turbine with 60 MW Nominal Output; Turbine Unit 4. MEQ = 60 MW	20100201
A00701A	Westinghouse 501B6 with ULNB, Combined Cycle Combustion Turbine with 85 MW Nominal Output; No Supplemental Duct-firing; Turbine Unit 5. MEQ = 85 MW	20100201
A00702B	Westinghouse 501B6 with ULNB, Combined Cycle Combustion Turbine with 85 MW Nominal Output; No Supplemental Duct-firing; Turbine Unit 6. MEQ = 85 MW	20100201
A00705	Westinghouse 501B6 with ULNB, Combined Cycle Combustion Turbine with 85 MW Nominal Output; No Supplemental Duct-firing; Turbine Unit 7. MEQ = 85 MW	20100201
A00708	Westinghouse 501B6 with ULNB, Combined Cycle Combustion Turbine with 85 MW Nominal Output; No Supplemental Duct-firing; Turbine Unit 8. MEQ = 85 MW	20100201
A00709	Lime Silo, 3,700 cubic feet.	30501613
A00710	Soda Ash Silo (A), 4,160 cubic feet.	30102122
A00711	Soda Ash Silo (B), 4,160 cubic feet.	30102122
A00712	Cooling Tower for Unit 9 Steam Turbine Generator Associated with Turbine Units 7 and 8 (EUs: A00705 & A00708) 53,000 gpm	38500110
A00713	Cooling Tower for Unit 10 Steam Turbine Generator Associated with Turbine Units 5 and 6 (EUs: A00701A & A00702B) 53,000 gpm	38500110
A21	Kohler Diesel Emergency Generator; M/N: N/A; 250 kW, 335.1 hp	20200102
A22	Onan Diesel Emergency Generator; M/N: N/A; 250 kW, 335.1 hp	20200102
A23	Diesel Emergency Fire Pump; M/N: N/A; 235 kW, 315 hp	20200102
A43	One Gasoline Dispensing Operation, Consisting of a 1,200 gallon aboveground storage tank and One Product Nozzle, Storing Regular Unleaded Gasoline	40600306

**B. EMISSION LIMITATIONS AND STANDARDS**

**1. Emission Limits**

- a. The Permittee shall allow neither the actual nor the allowable emissions from each emission unit to exceed the calculated PTE listed below in Tables III-B-1 and III-B-2. Pound-per-hour, ppm, and pound-per-MMBtu limits in Table III-B-1 are normal operation limits only (exclude periods of startup and shutdown of the combustion turbines). Ton-per-year emission limits of each emission unit include startup and shutdown emissions. [AQR 12.8.19(a) and NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07)]
- b. For calendar year 2009 only, Turbine Units 5 and 8 have a combined NOx emission limit of 180 tons. [Consent Decree Number 2:07-cv-00771]

**TABLE III-B-1: Source Potential to Emit, All Turbines on Natural Gas, 8,760 Hours per Year with Ancillary Equipment<sup>1</sup>**

EU	PM <sub>10</sub>		NO <sub>x</sub>				CO			SO <sub>2</sub>		VOC	
	lbs/hr	tons/yr	ppm <sup>3</sup> @15% O <sub>2</sub>	lbs/ MMBtu	lbs/hr	tons/yr	lbs/ MMBtu	lbs/hr	tons/yr	lbs/hr <sup>4</sup>	tons/yr	lbs/hr <sup>4</sup>	tons/yr
A00704 D	--	165.4	NL	NL	NL	1,732.6	NL	NL	433.1	NL	7.9	NL	94.5
A00701A	24.4	106.9	5	0.02	19.91	360 <sup>2</sup>	0.08	50.00	319.7	1.62	7.1	5.0	21.9
A00702B	24.4	106.9	5	0.02	19.91		0.08	50.00	319.7	1.62	7.1	5.0	21.9
A00705	24.4	106.9	5	0.02	19.91		0.08	50.00	319.7	1.62	7.1	5.0	21.9
A00708	24.4	106.9	5	0.02	19.91		0.08	50.00	319.7	1.62	7.1	5.0	21.9
A00709	NL	8.6	--	--	--	--	--	--	--	--	--	--	--
A00710	NL	8.6	--	--	--	--	--	--	--	--	--	--	--
A00711	NL	8.6	--	--	--	--	--	--	--	--	--	--	--
A00712	NL	32.2	--	--	--	--	--	--	--	--	--	--	--
A00713	NL	32.2	--	--	--	--	--	--	--	--	--	--	--
A21	NL	0.01	--	--	NL	0.10	--	NL	0.02	NL	0.01	NL	0.01
A22	NL	0.01	--	--	NL	0.10	--	NL	0.02	NL	0.01	NL	0.01
A23	NL	0.01	--	--	NL	0.13	--	NL	0.06	NL	0.02	NL	0.01

<sup>1</sup>Tons/yr emissions include Startup and Shutdowns for the Turbine Units (EUs: A00704D, A00701A, A00702B, A00705, and A00708), the lbs/hr, ppm, and lb/MMBtu PTE does not include Startup and Shutdown emissions.

<sup>2</sup>Beginning January 1, 2010, the consent decree defines long term NO<sub>x</sub> emission limits for Turbine Units 5 through 8 combined. For calendar year 2009 only, Turbine Units 5 and 8 have a combined NO<sub>x</sub> emission limit of 180 tons.

<sup>3</sup>On a one-hour average. These emission limits are based on the consent decree limit of 5 ppm with ULNB.

<sup>4</sup>These short-term emission limits are not federally enforceable.

- c. The Permittee shall not exceed the annual HAP emission limits for each emission unit or the source limit as listed in Table III-B-2. [Authority: NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07)]

**Table III-B-2: Source-Wide HAP Emissions (tons per year)**

HAP	Unit 4 (EU: A00704D) <sup>1,2</sup>	Per Each Turbine Unit 5-8 (EUs: A00701A, A00702B, A00705 A00708) <sup>1,2,3</sup>	Per Each of Two 250 kW Generators (EUs: A21 and A22) <sup>4</sup>	Existing Fire Pump (EU: A23)	Total for Gasoline Storage Tank (EU: A43) <sup>5</sup>	Total for All Units
1,3-Butadiene	1.88E-03	2.26E-03	1.19E-06	1.12E-06	--	4.14E-03
Acetaldehyde	1.75E-01	2.10E-01	2.34E-05	2.20E-05	--	3.85E-01
Acrolein	2.80E-02	3.36E-02	2.82E-06	2.65E-06	--	6.16E-02
Arsenic	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--
Chromium	--	--	--	--	--	--
Lead	--	--	--	--	--	--
Manganese	--	--	--	--	--	--
Formaldehyde	6.69E-02	8.04E-02	3.60E-05	3.38E-05	--	1.47E-01
Mercury	--	--	--	--	--	--
Nickel	--	--	--	--	--	--
Benzene	5.68E-03	6.83E-03	2.85E-05	2.67E-05	2.38E-04	1.28E-02
Ethyl Benzene	1.40E-01	1.68E-01	--	--	2.17E-05	3.08E-01
Selenium	--	--	--	--	--	--
Naphthalene	5.68E-03	6.83E-03	--	--	--	1.25E-02
Toluene	9.18E-02	1.10E-01	1.25E-05	1.17E-05	1.30E-04	2.02E-01
Propylene Oxide	1.27E-01	1.52E-01	7.85E-05	7.40E-05	--	2.79E-01
Xylenes	2.80E-01	3.36E-01	8.70E-06	8.17E-06	4.33E-05	6.16E-01
PAHs	9.62E-03	1.16E-02	5.10E-06	4.82E-06	--	2.12E-02
<b>Total Per Unit</b>	<b>0.93</b>	<b>1.12</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>--</b>

<sup>1</sup>Formaldehyde, benzene and toluene emissions factors from Gas-Fired Boiler and Turbine Air Toxics Summary Report, prepared by Carnot Technical Services, Tustin, CA, for the Gas Research Institute and the Electric Power Research Institute, August 1996; Remaining emission factors from AP-42 Section 3.1 Stationary Gas Turbines, Table 3.1-3.

<sup>2</sup>Based on HHV heat inputs of 997.9 (Unit 4) and 1,199.9 (Units 5-8 gas).

<sup>3</sup>Emission factors from AP-42, Volume 1, Chapter 3, Tables 3.1-4 and 3.1-5, Supplement F.

<sup>4</sup>Emission factors from AP-42 Volume 1, Section 3, Table 3.3-2, Supplement F.

<sup>5</sup>Not a federally enforceable limit; value is an estimate for informational purposes only.

- d. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*
- e. The emission units shall not exceed the PTE listed in Tables III-B-1 through IIIB-5 and Table III-B-7. The emission limits in Tables III-B-4 and III-B-5 are normal operation limits only (exclude periods of startup and shutdown of the combustion turbines) and shall not apply to NO<sub>x</sub> if the criteria in Condition III-B-1-g are met. Emission limits of Table III-B-3 include startup and shutdown emissions. *[AQR 12.8.19(a), NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07), and NSR ATC/OP 00007, Modification 5, Section III-B (10/01/08)]*
- f. The Permittee shall limit the Turbine Units 5 through 8 to a 5 ppm NO<sub>x</sub> emission rate during all periods of operation except startup, shutdown, or when all of the following are met *[Consent Decree Condition IV-B-35, (08/13/07) and NSR ATC/OP 00007, Modification 5 Revision 0, Condition IV-B-2 (10/01/08)]*:
  - i. Either:
    - (I) rapid combustion turbine load changes due to activation of the Automatic Safety or Equipment Protection Systems which rapidly decrease turbine load; or
    - (II) a change in the combustion mode of the ULNBs triggered by the Automatic Safety or Equipment Protection Systems;
  - ii. when the 1-hour average NO<sub>x</sub> emissions above the 5 ppm NO<sub>x</sub> emission rate did not occur as a result of operator neglect; improper operation or maintenance; or the tampering with, interfering with, altering, or adjusting any equipment in any way which conceals or disguises the type and quantity of emission;
  - iii. when the operating conditions described in III-B-1-g-i(I) or (II) are recorded in the plant's operating log within 24 hours of the event, and in the CEMS by 5 pm the next business day following the event. The notations in the log and CEMS must describe the data, list the time of entry into the log, and describe the plant operating conditions responsible for the event;
  - iv. when the 1-hour average NO<sub>x</sub> concentration does not exceed 32 ppm, when calculated by the method described in III-C-4; and
  - v. within thirty (30) calendar days of the event, the Permittee files a report with the EPA and Department of Justice that sets forth the information that demonstrates the applicability to the event of conditions III-B-1-g-i through iv.
- g. The conditions of III-B-1-g shall apply to no more than ten (10) 1-hour averages of NO<sub>x</sub> emissions per Turbine Unit per calendar year. The Permittee's shall demonstrate that it has met the conditions of III-B-1-g. All NO<sub>x</sub> emission during these 1-hour periods covered by III-B-1-g shall be included when calculating the annual NO<sub>x</sub> tonnage. *[Consent Decree Condition IV-B-36, (08/13/07) and NSR ATC/OP 00007, Modification 5 Revision 0, Condition IV-B-3 (10/01/08)]*

**Table III-B-3: PTE of Modified Turbine Units 5 through 8, Including Startup and Shutdowns<sup>1</sup>**

EU	PM <sub>10</sub> (tpy)	NO <sub>x</sub> (tpy)	CO (tpy)	SO <sub>2</sub> (tpy)	VOC (tpy)
A00701A	106.90	360.00 <sup>2</sup>	319.70	7.10	21.90
A00702B	106.90		319.70	7.10	21.90
A00705	106.90		319.70	7.10	21.90
A00708	106.90		319.70	7.10	21.90

<sup>1</sup>NO<sub>x</sub> emission limits are based on the consent decree limit of 5 ppm with ULNB. SO<sub>2</sub> limits are based on natural gas sulfur content limit of 0.5 grains/100 dscf.

<sup>2</sup>Beginning January 1, 2010, the consent decree defines long term NO<sub>x</sub> emission limits for Turbine Units 5-8 combined. For calendar year 2009 only, Turbine Units 5 and 8 have a combined NO<sub>x</sub> emission limit of 180 tons.

**Table III-B-4: Emission Rates for Turbine Units 5 through 8, Normal Operations**

EU	NO <sub>x</sub> ppm <sup>1</sup>	lbs NO <sub>x</sub> per MMBtu <sup>2</sup>	lbs CO per MMBtu
A00701A	5.0	0.02	0.08
A00702B	5.0	0.02	0.08
A00705	5.0	0.02	0.08
A00708	5.0	0.02	0.08

<sup>1</sup>At 15% O<sub>2</sub> on a one-hour average.

<sup>2</sup>NO<sub>x</sub> EF = (5 ppm/1,000,000)\*(1 lb mol/385.3 dscf)\*(46.01 lb NO<sub>2</sub>/lb mol)\*(8,710 dscf/mmBtu)\*(20.9/20.9-15)

**Table III-B-5: Short-Term PTE, Excluding Start up and Shutdowns, for Turbine Units 5 through 8**

EU	PM <sub>10</sub> (lbs/hr)	NO <sub>x</sub> (lbs/hr)	CO (lbs/hr)	SO <sub>2</sub> <sup>1</sup> (lbs/hr)	VOC <sup>1</sup> (lbs/hr)
A00701A	24.40	19.91	50.00	1.62	5.00
A00702B	24.40	19.91	50.00	1.62	5.00
A00705	24.40	19.91	50.00	1.62	5.00
A00708	24.40	19.91	50.00	1.62	5.00

<sup>1</sup>These short-term emission limits are not federally enforceable.

**Table III-B-6: Startup/Shutdown PTE per Turbine Unit for Units 5 through 8**

EU	PM <sub>10</sub> (lbs/event)	NO <sub>x</sub> (lbs/event)	CO (lbs/event)	SO <sub>2</sub> (lbs/event)	VOC (lbs/event)
Hot Startup	24.40	140.00	800.00	8.00	5.00
Cold Startup	48.80	325.00	1,700.00	16.00	10.00
Shutdown	24.40	165.00	1,200.00	8.00	5.00

Note: Not federally enforceable limits; values are estimates for informational purposes only.

**Table III-B-7: Emission Rates for Turbine Units 5 through 8, Allowable Exceedences<sup>1</sup>**

EU	NO <sub>x</sub> ppm <sup>2</sup>	lbs NO <sub>x</sub> per MMBtu <sup>3</sup>
A00701A	32.0	0.12
A00702B	32.0	0.12
A00705	32.0	0.12
A00708	32.0	0.12

<sup>1</sup>Allowable exceedences are subject to the requirements of Condition III-B-1-g.

<sup>2</sup>At 15% O<sub>2</sub> on a one-hour average.

<sup>3</sup>NO<sub>x</sub> EF = (32 ppm/1,000,000)\*(1 lb mol/385.3 dscf)\*(46.01 lb NO<sub>2</sub>/lb mol)\*(8,710 dscf/mmBtu)\*(20.9/20.9-15)

- h. Turbine Units 5 through 8 (EUs: A00701A, A00702B, A00705 and A00708) are subject to all requirements and limits listed in 40 CFR 60 Subpart A and Subpart GG. The NO<sub>x</sub> limitation under Subpart GG is based on the formula provided in 40 CFR 60.332(a)(1).
- i. The Permittee shall not emit NO<sub>x</sub> from Turbine Units 5 and 8 in an amount greater than 180 tons from January 1, 2009, through December 31, 2009. The Permittee shall include the pollutants emitted during all periods of operation during the year, including during startup and shutdown. The Permittee shall not use NO<sub>x</sub> Allowances to comply with the 180 ton NO<sub>x</sub> limit. [*Consent Decree Condition IV-C-38-a, (08/13/07)*]
- j. Beginning January 1, 2010, the Permittee shall not emit NO<sub>x</sub> from Turbine Units 5 through 8 in an amount greater than 360 tons per calendar year. The Permittee shall include the pollutants emitted during all periods of operation during the year, including during startup and shutdown. The Permittee shall not use NO<sub>x</sub> Allowances to comply with the 360 ton NO<sub>x</sub> limit. [*Consent Decree Condition IV-C-38-b, (08/13/07)*]

## 2. Production Limitations

- a. The Permittee shall limit the throughput of the lime silo (EU: A00709) to 8,640 tons per rolling 12-month period. [*NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-A-7 (03/20/07)*]
- b. The Permittee shall limit the throughput of each of the soda ash silos (EUs: A00710 and A00711) to 8,640 tons per rolling 12-month period. [*NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-A-8 (03/20/07)*]
- c. The Permittee shall limit the maximum water flow in each cooling tower to 53,000 gallons per minute and the TDS to 12,000 ppm on a 30-day rolling average (EUs: A00712 and A00713). [*NSR ATC/OP 00007, Modification 4 Revision 1, Conditions III-A-6 and III-B-7. (03/20/07)*]
- d. The Permittee shall limit the operation of the Kohler 250 kW, 335 hp emergency generator, Onan 250 kW, 335 hp emergency generator, and the 235 kW, 315 hp fire pump (Emission Units A21, A22, and A23) to 26 hours per rolling 12-month period each for testing and maintenance purposes. These limits do not apply during emergencies. [*NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-A-4 (03/20/07)*]
- e. The Permittee shall limit the monthly throughput of the GDO at this source (EUs: A43) to less than 10,000 gallons of gasoline. [*40 CFR 63.11111*]

### 3. Emission Controls

- a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected source 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. *[40 CFR 60.11(d)]*
- b. Turbine Units 5 through 8 are subject to all applicable requirements and limits listed in 40 CFR 60 Subpart A and Subpart GG. The Permittee shall comply with these requirements by meeting the following conditions and other applicable provisions in 40 CFR 60 Subpart A and Subpart GG *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-2. (03/20/07)]*:
  - i. The Permittee shall use only natural gas in the combustion turbine units at the source. *[Consent Decree Condition IV-B-33, (08/13/07)]*
  - ii. Sulfur content of natural gas fuel shall not exceed 0.5 grains per 100 dscf as determined by annual verification. *[40 CFR 75, Appendix D]*
  - iii. The Permittee shall meet the NO<sub>x</sub> limitation under Subpart GG that is based on the formula provided in 40 CFR 60.332(a)(1).
- c. After installation of the ULNB, the Permittee shall cease using water injection for NO<sub>x</sub> control. *[Consent Decree Condition IV-A-28, (08/13/07)]*
- d. Per manufacturer's recommendations or good operating practice, the Permittee shall control PM<sub>10</sub> exhaust emissions from each simple cycle system by properly maintaining and periodically replacing inlet air filters preceding each turbine. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-19, (03/20/07)]*
- e. The Permittee shall ensure that the baghouse on the lime silo and soda ash silos is in operation during the silo loading. The Permittee shall ensure that the baghouse operates at a minimum of 99.9 percent efficiency at all times. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-9 (03/20/07)]*
- f. The Permittee shall ensure that drift eliminators are installed on the wet cooling towers with a maximum drift rate of 0.002 percent, based on manufacturer's specifications. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-7. (03/20/07)]*
- g. The Permittee shall burn only low sulfur (<0.05 percent) diesel fuel in the emergency generators and fire pump. *[NSR ATC/OP 00007, Modification 4 Revision 1, Conditions III-A-4, III-A-5 and III-B-10 (03/20/07)]*
- h. Beginning January 10, 2011, the Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to the following:
  - i. minimize gasoline spills;

- ii. clean up spills as expeditiously as practicable;
  - iii. cover all open gasoline containers and all storage tank fill-pipes with a gasketed seal when not in use; and
  - iv. minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. *[40 CFR 63.11116]*
- i. Pursuant to AQR Section 43, this source shall be operated in a manner such that odors will not cause a nuisance. (Locally enforceable only). *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition I-14. (03/20/07)]*

### **C. MONITORING**

1. The Permittee shall comply with applicable monitoring requirements of 40 CFR 60 Subparts A and GG and 40 CFR 63 Subpart CCCCCC by maintaining CEMS on Turbine Units 5 through 8 (EUs: A00701A through A00708) and maintaining records of gasoline throughput. The Permittee shall comply with applicable requirements in 40 CFR 63 Subpart CCCCCC no later than January 10, 2011. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-C-1, (03/20/07) and AQR 19]*
2. To demonstrate continued direct compliance with operational limitations and the hourly, and/or annual emissions limitations for NO<sub>x</sub> and CO specified in Section III of this permit, the Permittee shall ensure that CEMS are calibrated, maintained, and operated on Turbine Units 5 through 8 to monitor and record the following parameters for each individual turbine unit:
  - a. hours of operation;
  - b. fuel consumption;
  - c. hours of downtime of the CEMS;
  - d. exhaust gas flow rate (by direct or indirect methods);
  - e. exhaust gas concentration of NO<sub>x</sub>, CO and O<sub>2</sub>;
  - f. one hour average NO<sub>x</sub> concentration; and
  - g. hourly and 12-month rolling accumulated mass emissions of NO<sub>x</sub> and CO. *[AQR 19.4.1.3(a)]*
3. The Quality Assurance Plan for all CEMS required by this permit has been submitted to and accepted by the Control Officer. This QA plan is binding and consistent with the regulations. The QA Plan contains auditing schedules, reporting schedules, and design specifications for the CEMS system. The CEMS shall conform to all provisions of 40 CFR 60.13 and 40 CFR 60 Subpart GG. Audit procedures shall conform to the provisions of 40 CFR 60 Appendix F. *[AQR 19.4.1.3(a)]*
4. For Turbine Units 5 through 8 (EUs: A00701A through A00708), in determining the NO<sub>x</sub> emission concentration on a one-hour average, the Permittee shall use CEMS in accordance with the applicable reference methods specified in 40 CFR 60 to calculate emission for each 15-minute interval within each clock hour, except as

provided in this condition. Compliance with the 5 ppm NO<sub>x</sub> emission rate shall be shown, by the Permittee, by averaging all 15-minute CEMS interval readings within a clock hour, except that any 15-minute CEMS interval that contains any part of a start up or shutdown shall not be included in the calculation of that 1-hour average. A minimum of two 15-minute CEMS interval readings within a clock hour, not including start up or shutdown intervals, is required to determine compliance with the 5 ppm NO<sub>x</sub> emission rate, on a 1-hour average. *[Consent Decree Condition IV-B-31, (08/13/07)]*

5. The Permittee shall report all startup and shutdown emissions as recorded by CEMS. A startup period for Turbine Units 5 through 8 (EUs: A00701A, A00702B, A00705 and A00708) is defined as the one hour period immediately following the beginning of the combustion of fuel, except during a Cold Steam Turbine Start up of a unit operating in combined cycle mode. Cold Steam Turbine Start up means the start-up of a power block when the steam turbine first stage base metal temperatures are below 250 degrees F. A Cold Steam Turbine Start up is defined as the two hour period immediately following the beginning of the combustion of fuel in the first unit to start in that power block. A shutdown period is defined as the period of no more than one hour that immediately precedes the cessation of fuel combustion. *[Consent Decree Condition III-23 and III-24, (08/13/07)]*
6. The Permittee shall continue to monitor the TDS in the cooling tower circulating water daily when operating using a method approved by DAQEM. *[AQR 19.4.1.3(a)]*
7. The Permittee shall perform at least one visual emissions observation on a plant-wide level each calendar quarter. Quarterly visual observations shall include the diesel-fired emergency generators and fire pump (EUs: A21, A22, and A23) while operating, not necessarily simultaneously, to demonstrate compliance with the opacity limit. If any of the diesel-fired emergency generators or fire pump does not operate during the calendar quarter, then no observation of that unit shall be required. If visible emissions are observed, then corrective actions shall be taken to minimize the emissions and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. *[AQR 19.4.1.3(a) and 40 CFR 70.6]*

#### **D. TESTING**

1. Turbine Unit 4 (EU: A00704D) has no enforceable short-term limitations. Turbine 4 shall be performance tested for NO<sub>x</sub> and CO as a demonstration of compliance with its annual emission limitations within 180 days after operating more than 500 hours in any calendar year. Table III-D-1 summarizes NO<sub>x</sub> and CO performance test methods and frequency for Turbine Unit 4. *[AQR 19.4.3.1]*

**Table III-D-1: Performance Testing Requirements for Turbine Unit 4**

Test Point	Pollutant	Method (40 CFR 60, Appendix A)	Frequency
Turbine/HRSG Exhaust Stack	NO <sub>x</sub>	Chemiluminescence Analyzer (EPA Method 7E)	Within 180 days after operating more than 500 hours in any calendar year
Turbine/HRSG Exhaust Stack	CO	EPA Method 10 analyzer	
Stack Gas Parameters	---	EPA Methods 1, 2, 3, 4	

- The Permittee shall comply with all applicable performance testing requirements of 40 CFR 60 Subparts A and GG by complying with the performance testing requirement listed in Table III-D-2. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-D-1, (03/20/07)]*
- Initial performance tests for Turbine Units 5 through 8 were conducted. To demonstrate continued compliance with the emissions limitations specified in Section III, the Permittee shall continue to conduct performance tests on Turbine Units 5 through 8 for NO<sub>x</sub>, CO, VOCs, and PM<sub>10</sub> once every five years, with the next series of tests due for each turbine unit within five years of the last performance test. *[AQR 19.4.3.1 and NSR ATC/OP A0007, Modification 3, Condition III-E-1 (10/30/03)]*
- Performance testing for particulate matter must be conducted annually on Unit 7 and the results reported in accordance with the methods set forth in 40 CFR 60.8 and 40 CFR 60 Appendix A. The EPA shall be notified at least 30 days in advance of such tests to allow an observer to be present. Equivalent test methods may be used if approved by the EPA. *[Authority: PSD permit NV 78-01, Condition VIII-D-2, (10/01/79)]*
- Table III-D-2 summarizes VOC, PM<sub>10</sub>, NO<sub>x</sub>, and CO performance test methods for Turbine Units 5 through 8. *[AQR 19.4.3.1]*

**Table III-D-2: Performance Testing Requirements for Turbine Units 5 through 8**

Test Point	Pollutant	Method (40 CFR 60, Appendix A)	Frequency
Turbine/HRSG Exhaust Stack	NO <sub>x</sub>	Chemiluminescence Analyzer (EPA Method 7E)	Every 5 years
Turbine/HRSG Exhaust Stack	CO	EPA Method 10 analyzer	Every 5 years
Turbine/HRSG Exhaust Stack	VOC	Flame Ionization Analyzer (EPA Method 25a)	Every 5 years
Turbine/HRSG Exhaust Stack	PM <sub>10</sub>	EPA Method 5/202 or 201a/202	Every 5 years – Annually for Unit 7
Turbine/HRSG Exhaust Stack	Opacity	EPA Method 9	Every 5 years
Stack Gas Parameters	---	EPA Methods 1, 2, 3, 4	Every 5 years

6. The baghouses must be performance tested for PM<sub>10</sub> to determine capture efficiency within 500 hours of use after November 2, 2003. The baghouses shall thereafter be performance tested after each 8,760 hours of use. Table III-D-3 summarizes PM<sub>10</sub> performance test methods for all baghouses. [AQR 19.4.3.1]

**Table III-D-3: Performance Testing Requirements for Baghouses**

Test Point	Pollutant	Method (40 CFR 60, Appendix A)	Frequency
Baghouse Exhaust Stack	PM <sub>10</sub>	EPA Method 5	Every 8,760 hours of use

7. Upon written request and justification the Administrator may waive the requirement for a specific annual source test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation may include, but is not necessarily limited to, a showing that Unit 7 has not, or has only minimally operated over the past year. The Permittee shall then be notified by EPA regarding the need to test. [PSD permit NSR 4-7-1 NV 78-02 Condition VIII-D-3, (08/08/83)]

**E. RECORD KEEPING**

1. Records and data required by this permit to be maintained by the Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. [AQR 4.4 and 19.4.3.2]
2. All records and logs, or a copy thereof, shall be kept on site for a minimum of five years from the date the measurement was taken or data was entered and shall be made available to DAQEM upon request. [AQR 19.4.1.3(b)]
3. The Permittee shall comply with all applicable record keeping requirements of 40 CFR 60.7, 40 CFR 60 Subpart GG, and 40 CFR 63 Subpart CCCCCC. The Permittee shall maintain records on-site that include, at a minimum:
  - a. the magnitude and duration of excess emissions, notifications, monitoring system performance, malfunctions and corrective actions, taken as required by 40 CFR 60.7;
  - b. CEMS audit results or accuracy checks, and corrective actions, as required by 40 CFR 60 and the CEMS Quality Assurance Plan;
  - c. monthly CEMS NO<sub>x</sub> and CO data;
  - d. dates and hours of operation of each emission unit except EU A43;
  - e. dates, times and duration of each turbine startup and shutdown event;
  - f. annual emissions per turbine, including startup, shutdown and normal operations, in tons per 12-month rolling total;
  - g. monthly and 12-month rolling total quantity of natural gas consumed in each gas turbine;

- h. monthly and 12-month rolling total throughput of the lime silo and each soda ash silo;
  - i. monthly and 12-month rolling total gasoline throughput pursuant to 40 CFR 63.11116(b);
  - j. monthly and 12-month rolling total hours of operation of, and quantity of diesel fuel consumed in, each of the diesel generators and fire pump for testing and maintenance purposes and a separate log for operation during emergencies;
  - k. sulfur content of natural gas;
  - l. sulfur content of diesel fuel as certified by the supplier;
  - m. daily TDS content of tower circulation water when operating ;
  - n. log of visible emission checks; and
  - o. results of performance testing. *[AQR 19.4.1.3(b)]*
4. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 19.4.1.3(b)]*
5. Should this stationary source, as defined in 40 CFR 68.3, become subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit an RMP by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR 70 or 71. *[AQR 19.4.1.3]*

## **F. REPORTING**

1. The Permittee shall comply with all notification, record keeping and reporting requirements of 40 CFR 60.7, 40 CFR 60 Subpart GG,. *[AQR 19.4.1.3 and NSR ATC/OP Modification 4 Revision 1, Condition IV-I-1 (03/20/07)]*
2. The Permittee shall submit quarterly monitoring reports, annual compliance certifications, and annual emission inventories as specified in table III-F-1 *[AQR 19.4.1.3]*
3. Each quarterly report shall *[AQR 19.4.1.3]*:
  - a. include, as the first page of text, a signed certification containing the sentence, “I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate and complete.” This statement shall be signed and dated by a responsible official of the company;
  - b. include quarterly summaries of items listed in Condition III-E-3-a through j;
  - c. include quarterly summaries of any permit deviations, their probable cause and corrective actions or preventative actions taken;
  - d. be based on the calendar quarter, including partial calendar quarters;
  - e. be submitted within 30 days after the end of the calendar quarter; and
  - f. be addressed to the attention of the Control Officer. *[AQR 19.4.1.3]*

4. Regardless of the date of issuance of this permit, the schedule for the submittal of reports to the Control Officer shall be as follows [AQR 19.4.1.3]:

**Table III-F-1: Reporting Schedule**

Required Report	Applicable Period	Due Date <sup>1</sup>
Quarterly Report for 1 <sup>st</sup> Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2 <sup>nd</sup> Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3 <sup>rd</sup> Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4 <sup>th</sup> Calendar Quarter, Any additional annual records required.	October, November, December	January 30 each year
Annual Compliance Certification Report	12 Months	30 days after the Operating Permit issuance anniversary date
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Report	As Required	As soon as practicable but not to exceed ten (10) calendar days from onset of the event
Deviation Report	As Required	Along with quarterly reports
Performance Testing	As Required	Within 60 days from the end of the test

<sup>1</sup> If the due date falls on a Saturday, Sunday or legal holiday, then the submittal is due on the next regularly scheduled business day.

5. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit conditions, permit requirements and requirements of applicable regulations. [AQR 4.4 and 19.4.1.3]

**G. MITIGATION**

The source has no federal offset requirements. [AQR 59.1.1]

**IV. OTHER REQUIREMENTS**

1. The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) compound as a working fluid, unless such fluid has been approved for sale in such use by the Administrator. The Permittee shall keep record of all paperwork relevant to the applicable requirements of 40 CFR 82 on site. [40 CFR 82]
2. In compliance with the requirements of the Consent Decree, Case No. 2:07-cv-00771, the Permittee shall comply with the schedule in Table IV-1.

**Table IV-1: Consent Decree NO<sub>x</sub> Reductions and Controls Requirements**

Requirement	Date Required
The Permittee shall operate Turbine Units 5 through 8 in accordance with the water-to-fuel ratio curves approved by EPA excluding periods of startup and shutdown	30 calendar days after lodging of the Consent Decree
The Permittee shall record actual water-to-fuel ratio on a 3-hour average basis using a CEMS DAHS	30 calendar days after lodging of the Consent Decree
The Permittee shall cease operating water injection on a Turbine Unit when a ULNB commences operation on that unit	Variable
The Permittee shall commence operation of ULNB on Turbine Unit 5	12/31/08
The Permittee shall commence operation of ULNB on Turbine Unit 6	12/31/09
The Permittee shall commence operation of ULNB on Turbine Unit 7	12/31/09
The Permittee shall commence operation of ULNB on Turbine Unit 8	12/31/08
The Permittee shall achieve a 5 ppm NO <sub>x</sub> Emission Rate on a 1-hour average on Turbine Unit 5 (excluding startup and shut down)	1/30/09
The Permittee shall achieve a 5 ppm NO <sub>x</sub> Emission Rate on a 1-hour average on Turbine Unit 6 (excluding startup and shut down)	1/30/10
The Permittee shall achieve a 5 ppm NO <sub>x</sub> Emission Rate on a 1-hour average on Turbine Unit 7 (excluding startup and shut down)	1/30/10
The Permittee shall achieve a 5 ppm NO <sub>x</sub> Emission Rate on a 1-hour average on Turbine Unit 8 (excluding startup and shut down)	1/30/09
The Permittee shall use a CEMS to record NO <sub>x</sub> Emission Rates on Turbine Unit 5 and report the emissions in one hour averages	1/30/09
The Permittee shall use a CEMS to record NO <sub>x</sub> Emission Rates on Turbine Unit 6 and report the emissions in one hour averages	1/30/10
The Permittee shall use a CEMS to record NO <sub>x</sub> Emission Rates on Turbine Unit 7 and report the emissions in one hour averages	1/30/10
The Permittee shall use a CEMS to record NO <sub>x</sub> Emission Rates on Turbine Unit 8 and report the emissions in one hour averages	1/30/09

## V. PERMIT SHIELD

- Compliance with the terms contained in this permit shall be deemed compliance with the following applicable requirements in effect on the date of permit issuance:

**Table V-1: Applicable Requirements Related to Permit Shield**

Regulation (40 CFR)	Pollutant	Regulatory Standard		Permit Limit		Value Comparison			Averaging Comparison			Shield Statement
		Value	Units	Value	Units	Standard Value, in Units of the Permit Limit <sup>1</sup>	Permit Limit Value	Is the Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is the Permit Limit Equal or More Stringent?	
60.332 (GG)	NOx	75 <sup>1</sup>	ppmvd @ 15% O <sub>2</sub>	5.0	ppmvd @ 15% O <sub>2</sub>	75 <sup>1</sup>	5.0	Yes	4 hour	1 hour	Yes	The permit limit is more stringent than the standard, based on both concentration and averaging time, therefore the facility should be shielded from the standard.

<sup>1</sup>The 60.332 NOx standard is a formula; the value used here (75 ppmvd) is the minimum possible value of the standard for any emission unit.

## VI. ATTACHMENTS

### REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

1. Clark County Air Quality Regulations Applicable Sections:

Citation	Title
AQR Section 0	Definitions
AQR Section 2	Air Pollution Control Board
AQR Section 4	Control Officer
AQR Section 5	Interference with Control Officer
AQR Section 6	Injunctive Relief
AQR Section 8	Persons Liable for Penalties – Punishment: Defense
AQR Section 9	Civil Penalties
AQR Section 10	Compliance Schedule
AQR Section 11	Ambient Air Quality Standards
AQR Section 12	Preconstruction Review for New or Modified Stationary Sources
AQR Section 12.5	Air Quality Models
AQR Section 18	Permit and Technical Service Fees
AQR Section 19	40 CFR Part 70 Operating Permits
AQR Section 20	Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP)
AQR Section 24	Sampling and Testing - Records and Reports
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 28	Fuel Burning Equipment
AQR Section 29	Sulfur Contents of Fuel Oil
AQR Section 35	Diesel Engine Powered Electrical Generating Equipment
AQR Section 40	Prohibition of Nuisance Conditions
AQR Section 41	Fugitive Dust
AQR Section 42	Open Burning
AQR Section 43	Odors in the Ambient Air
AQR Section 55.5	Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area
AQR Section 60	Evaporation and Leakage
AQR Section 70	Emergency Procedures
AQR Section 80	Circumvention
AQR Section 90	Fugitive Dust from Open Areas and Vacant Lots
AQR Section 91	Fugitive Dust from Unpaved Roads, Unpaved Alleys, and Unpaved Easement Roads
AQR Section 92	Fugitive Dust from Unpaved Parking Lots

2. Nevada Revised Statutes (NRS), Chapter 445B.
3. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq.
4. Title 40 of the Code of Federal Regulations (40 CFR) Applicable Subsections:

Citation	Title
40 CFR 52.21	Prevention of Significant Deterioration (PSD)
40 CFR 52.1470	SIP Rules
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions

<b>Citation</b>	<b>Title</b>
40 CFR 60, Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR 63, Subpart A	National Emission Standards for Hazardous Air Pollutants for Source Categories – General Provisions
40 CFR 63, Subpart CCCCCC	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
40 CFR 70	Federally Mandated Operating Permits