

**CLARK COUNTY**  
**DEPARTMENT OF AIR QUALITY**  
*4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118*  
**Part 70 Operating Permit**  
**Source: 7**  
Issued in accordance with the  
Clark County Air Quality Regulations (AQR)

**ISSUED TO: Nevada Power Company dba NV Energy,  
Clark Generating Station**

**SOURCE LOCATION:**  
5640 Stephanie Street  
Las Vegas, Nevada 89122  
T21S, R62E, Section 28  
Hydrographic Basin Number: 212

**COMPANY ADDRESS:**  
P.O. Box 98910, MS #30  
Las Vegas, NV 89151

**NATURE OF BUSINESS:**  
SIC Code 4911: Electric Services  
NAICS: 221112: Fossil Fuel Electric Power Generation

**RESPONSIBLE OFFICIAL:**  
Name: Kevin Geraghty  
Title: Vice President, Generation  
Phone: (702) 402-5662  
Fax Number: (702) 402-0835

**Permit Issuance Date: December 24, 2014**

**Expiration Date: December 23, 2019**

**ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY**



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Lewis Wallenmeyer  
Director, Clark County Department of Air Quality

## EXECUTIVE SUMMARY

Nevada Power Company – Clark Generating Station is an electrical power generating station located at 5640 Stephanie Street in Las Vegas, Nevada. The legal description of the source location is as follows: portions of T21S, R62E, Section 28 in Las Vegas Valley, County of Clark, State of Nevada. The source is situated in hydrographic area 212 (Las Vegas Valley). Las Vegas Valley is designated attainment for all regulated pollutants.

Clark Generating Station is a Categorical Stationary Source, as defined by AQR 12.2.2(j)(1). The source is a major stationary source for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO, and VOC pollutants and a minor source for SO<sub>2</sub> and HAP pollutants. The generating station operates seventeen natural gas-fired turbines (one 60 MW simple cycle unit, four 85 MW combined cycle units which provide heat for four HRSG turbines with no supplemental duct firing, and 12 simple cycle paired units rated at 57.9 MW per pair), two 53,000 gpm cooling towers, one 474 hp diesel-powered emergency generator, one 460 hp diesel-powered emergency fire pump and one 1,200 gallon aboveground gasoline storage tank. This Part 70 Operating Permit is issued based on the Title V Renewal application submitted on April 15, 2014.

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.

Air Quality will continue to require the sources to estimate their GHG potential to emit in terms of each individual pollutant (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, CF<sub>6</sub> etc.) and the TSD should include the PTE for information purposes..

PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP	GHG
792.68	792.68	2,467.27	1,851.70	49.10	216.47	8.12	4,524,818

Pursuant to AQR 12.5.2, all terms and conditions in Sections I through VI and Attachments 1 and 2 in this permit are federally enforceable unless explicitly denoted otherwise.

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**I. ACRONYMS****Table I-1: List of Acronyms and Abbreviations**

<b>Acronym</b>	<b>Term</b>
Air Quality	Clark County Department of Air Quality
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
DEM	Digital Elevation Model
EF	Emission Factor
EO	Executive Order
EPA	United States Environmental Protection Agency
EU	Emission Unit
HAP	Hazardous Air Pollutant
HHV	Higher Heating Value
HP	Horse Power
HRSG	Heat Recovery Steam Generating Unit
LHV	Lower Heating Value
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>2.5</sub>	Particulate Matter less than 2.5 microns
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 conditions of the Part 70 Operating Permit. Any permit noncompliance may constitute a violation of the AQRs, Nevada law, and the CAA, and is grounds for any of the following: enforcement action; permit termination; revocation and re-issuance; revision; or denial of a permit renewal application. *[AQR 12.5.2.6(g)(1)]*
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 12.5.2.6(f)]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. *[AQR 12.5.2.6(h)]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
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 5.1.1]*
6. The Permittee shall allow the Control Officer upon presentation of credentials: *[AQR 4.3 and 12.5.2.8(b)]*
  - a. Have access to and copy any records that must be kept under the conditions of the permit;
  - b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
  - c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and
  - d. Document alleged violations using devices such as cameras or video equipment.
7. 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. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. A responsible official shall certify the additional information consistent with the requirements of AQR Section 12.5.2.4. *[AQR 12.5.2.2]*
8. The Permittee who has been issued a permit under Section 12.5 shall post such permit in a location which is clearly visible and accessible to the facility's employees and representatives of the department. *[AQR 12.5.2.6(m)]*

**B. Modification, Revision, Renewal Requirements**

1. No person shall begin actual construction of a New Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an Authority to Construct Permit from the Control Officer *[AQR 12.4.1.1(a)]*
2. The permit may be revised, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[AQR 12.5.2.6(g)(3)]*
3. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: *[AQR 12.5.2.10(a)]*
  - a. The Permittee has submitted to the Control Officer a complete application for a permit, permit revision, or permit renewal, except that a complete application need not be received before a Part 70 general permit is issued pursuant to Section 12.5.2.20; and
  - b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Section 12.5
4. The Permittee shall not build, erect, install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere reduces or 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. *[AQR 12.5.2.6(i)]*
6. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted. *[AQR 12.5.2.11(b)]*
7. For purposes of permit renewal, a timely application is a complete application that is submitted at least six (6) months and not greater than eighteen (18) months prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 Operating Permit until final action is taken on its application for a renewed Part 70 Operating Permit. *[AQR 12.5.2.1(a)(2)]*

**C. Reporting/Notifications/Providing Information Requirements**

1. The Permittee shall submit all compliance certifications to EPA and to the Control Officer. *[AQR 12.5.2.8(e)(4)]*
2. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or AQRs shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under AQR 12.5 shall state that, based on information and belief

formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [AQR 12.5.2.6(l)]

3. 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 revising, 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 12.5.2.6(g)(5)]
4. 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 the 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]
5. The Permittee shall submit annual emissions inventory reports based on the following: [AQR 18.6.1]
  - a. The annual emissions inventory must be submitted to Air Quality by March 31 of each calendar year; and
  - 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.

#### **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 in order to maintain compliance with the conditions of this permit. [AQR 12.5.2.6(g)(2)]
2. Any person who violates any provision of the AQR, 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 Air Quality is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board and/or the Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. [AQR 9.1; NRS 445B.640]
3. Any person aggrieved by an order issued pursuant to AQR Section 9.1 is entitled to review as provided in Chapter 233B of NRS. [AQR 9.12]
4. 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(b)(8)]

5. The Permittee shall certify compliance with terms and conditions contained in the OP, including emission limitations, standards, work practices, and the means for monitoring such compliance. *[AQR 12.5.2.8(e)]*
6. The Permittee shall submit compliance certifications annually in writing to the Control Officer (4701 W Russell Road, Ste 200, Las Vegas, NV 89118) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each year will be due on January 30th of the following year and shall include the following: *[AQR 12.5.2.8(e)]*
  - a. The identification of each term or condition of the permit that is the basis of the certification;
  - 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. The methods and means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements described in 40 CFR 70.6(a)(3). If necessary, the Permittee shall also 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; and
  - 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 methods or means designated in subsection II.D.5(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.
7. The Permittee shall report to the Control Officer (4701 West Russell Road, Suite – 200, Las Vegas, NV 89118) any startup, shutdown, 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 12.5.2.6(d)(4)(B); AQR 25.6.1]*
  - a. within twenty-four (24) hours of the time the Permittee learns of the excess emissions, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email: [airquality@clarkcountynv.gov](mailto:airquality@clarkcountynv.gov)
  - b. within seventy-two (72) hours of the notification required by paragraph (a) above, the detailed written report containing the information required by AQR Section 25.6.3 shall be submitted.
8. The Permittee shall report to the Control Officer with the semi-annual monitoring report all deviations from permit conditions that do not result in excess emissions, including those attributable to malfunction, startup, or shutdown. Reports shall identify the probable cause of each deviation and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*

9. The owner or operator of any source required to obtain a permit under Section 12 shall report to the Control Officer emissions that are in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health, safety or the environment as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered, with a written report submitted within two (2) days of the occurrence. *[AQR 25.6.2]*

#### **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 Air Quality 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. *[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 (4701 West Russell Road, Suite 200, Las Vegas, NV 89118) not less than 45, nor more than 90, days prior to the anticipated date of the performance test, unless an alternate timeline is approved by the Control Officer. *[AQR 12.5.2.8]*
4. The Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA, to demonstrate compliance with a requirement under 40 CFR Part 60. *[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. *[12.5.2.8]*

### 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 12.5.3]

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

EU	Description	Rating	Make	Model #
A00704D	Natural Gas-Fired Turbine (Unit 4); Simple Cycle	60 MW	General Electric	7B (7000)
A00701A	Natural Gas-Fired Turbine (Unit 5); Combined Cycle	85 MW	Westinghouse	501B6
A00702B	Natural Gas-Fired Turbine (Unit 6); Combined Cycle	85 MW	Westinghouse	501B6
A00705	Natural Gas-Fired Turbine (Unit 7); Combined Cycle	85 MW	Westinghouse	501B6
A00708	Natural Gas-Fired Turbine (Unit 8); Combined Cycle	85 MW	Westinghouse	501B6
A00709	Lime Silo	3,700 cubic feet		
A00710	Soda Ash Silo (A)	4,160 cubic feet		
A00711	Soda Ash Silo (B)	4,160 cubic feet		
A00712	Cooling Tower; for Unit 9 Steam Turbine Generator	53,000 gpm		
A00713	Cooling Tower; for Unit 10 Steam Turbine Generator	53,000 gpm		
A21	Emergency Genset	474 hp	Kohler	M/N: 300R0ZD71 S/N: 302650
	Diesel Engine; DOM: pre-1993		Detroit Diesel	M/N: 8063-7416 S/N: 6V-92TA
A27	Two (2) Natural Gas-Fired Turbines (Unit 11); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A28	Two (2) Natural Gas-Fired Turbines (Unit 12); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A29	Two (2) Natural Gas-Fired Turbines (Unit 13); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A30	Two (2) Natural Gas-Fired Turbines (Unit 14); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A31	Two (2) Natural Gas-Fired Turbines (Unit 15); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A32	Two (2) Natural Gas-Fired Turbines (Unit 16); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A33	Two (2) Natural Gas-Fired Turbines (Unit 17); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A34	Two (2) Natural Gas-Fired Turbines (Unit 18); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A35	Two (2) Natural Gas-Fired Turbines (Unit 19); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A36	Two (2) Natural Gas-Fired Turbines (Unit 20); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A37	Two (2) Natural Gas-Fired Turbines (Unit 21); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac
A38	Two (2) Natural Gas-Fired Turbines (Unit 22); Simple Cycle	57.9 MW (Combined)	Pratt and Whitney	FT8-3 Swift Pac

EU	Description	Rating	Make	Model #
A43	Gasoline Dispensing Operation; Aboveground Storage Tank; One Product Nozzle; Regular Unleaded Gasoline	1,200 Gallon		
A45	Emergency Fire Pump	460 hp	Aurora	M/N: 481BF1J S/N: 08-1747710
	Diesel Engine; DOM: 2009		Cummins	M/N: CFP15E-F10 S/N: 79347925

**TABLE III-A-2: Summary of Insignificant Activities**

Description
Three (3) Ammonia Storage Tanks (Sealed); 19,900 Gallon Each
Diesel Storage Tanks
Maintenance Shop Activities (parts washers, sand blasters, etc.)
Steam Cleaning Operations
Lube Oil Sumps and Vents

**B. Emission Limitations and Standards****1. Emission Limits**

- a. The Permittee shall not allow the actual emissions from each emission unit to exceed the PTE listed in Table III-B-1. Tons-per-year emission limits of each emission unit include startup and shutdown emissions. [AQR 12.5.2.3 and NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07), Modification 5, (10/1/08), and Modification 6, (04/27/09)]

**Table III-B-1: Emission Unit PTE, Including Startup and Shutdowns (tons per year)**

EU	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC
A00704D	165.4	1,732.6	433.1	7.9	94.5
A00701A	106.9	360 <sup>1</sup>	319.7	7.1	21.9
A00702B	106.9		319.7	7.1	21.9
A00705	106.9		319.7	7.1	21.9
A00708	106.9		319.7	7.1	21.9
A00709	8.6				
A00710	8.6				
A00711	8.6				
A00712	32.2				
A00713	32.2				
A27	9.10	30.96	11.55	1.01	2.86
A28	9.10	30.96	11.55	1.01	2.86
A29	9.10	30.96	11.55	1.01	2.86
A30	9.10	30.96	11.55	1.01	2.86
A31	9.10	30.96	11.55	1.01	2.86
A32	9.10	30.96	11.55	1.01	2.86
A33	9.10	30.96	11.55	1.01	2.86
A34	9.10	30.96	11.55	1.01	2.86
A35	9.10	30.96	11.55	1.01	2.86
A36	9.10	30.96	11.55	1.01	2.86
A37	9.10	30.96	11.55	1.01	2.86
A38	9.10	30.96	11.55	1.01	2.86
A43	0.00	0.00	0.00	0.00	0.01

<sup>1</sup>Combined limit per calendar year for all four turbine units.

- b. The Permittee shall not allow the actual emissions from each emission unit to exceed the PTE listed in Table III-B-2. Pound-per-hour limits are normal operation (exclude startup and shutdown) limits only. Neither NO<sub>x</sub> nor CO emissions for the stationary gas turbine units shall exceed any one-hour average period as determined by the CEMS. The emission limits do not apply to Turbine Units 5 – 8 (EUs: A00701A, A00702B, A00705, and A00708) for NO<sub>x</sub> when Condition III-B-1(h) is applicable. [NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07) and Modification 5, (10/1/08)]

**Table III-B-2: Emission Unit PTE, Excluding Startup and Shutdowns (pounds per hour)**

EU	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC
A00701A	24.4	19.91	50.00	1.62 <sup>1</sup>	5.0 <sup>1</sup>
A00702B	24.4	19.91	50.00	1.62 <sup>1</sup>	5.0 <sup>1</sup>
A00705	24.4	19.91	50.00	1.62 <sup>1</sup>	5.0 <sup>1</sup>
A00708	24.4	19.91	50.00	1.62 <sup>1</sup>	5.0 <sup>1</sup>
A27	3.61	11.01	2.61	0.36	1.49
A28	3.61	11.01	2.61	0.36	1.49
A29	3.61	11.01	2.61	0.36	1.49
A30	3.61	11.01	2.61	0.36	1.49
A31	3.61	11.01	2.61	0.36	1.49
A32	3.61	11.01	2.61	0.36	1.49
A33	3.61	11.01	2.61	0.36	1.49
A34	3.61	11.01	2.61	0.36	1.49
A35	3.61	11.01	2.61	0.36	1.49
A36	3.61	11.01	2.61	0.36	1.49
A37	3.61	11.01	2.61	0.36	1.49
A38	3.61	11.01	2.61	0.36	1.49

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

- c. The Permittee shall not allow actual emissions from each emission unit to exceed the PTE listed in Table III-B-3. The emission limits are normal operation (exclude startup and shutdown) limits only. The emission limits do not apply to Turbine Units 5 – 8 (EUs: A00701A, A00702B, A00705, and A00708) for NO<sub>x</sub> when Condition III-B-1(h) is applicable. [NSR ATC Modification 6, Revision 3, Conditions IV-B-1(a) and (b) (04/16/09)]

**Table III-B-3: Emission Rates Excluding Startup and Shutdown**

EU	NO <sub>x</sub>		CO		VOC
	ppm <sup>1</sup> @15% O <sub>2</sub>	lbs/ MMBtu	ppm <sup>1</sup> @15% O <sub>2</sub>	lbs/ MMBtu	ppm @ 15% O <sub>2</sub>
A00704D					
A00701A	5 <sup>2</sup>	0.02		0.08	
A00702B	5 <sup>2</sup>	0.02		0.08	
A00705	5 <sup>2</sup>	0.02		0.08	
A00708	5 <sup>2</sup>	0.02		0.08	
A27 – A38	5		2		2

<sup>1</sup>On a one-hour average.

<sup>2</sup>NO<sub>x</sub> emission limits are based on the consent decree limit of 5 ppm with ULNB.

- 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 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)*]

- f. The emission units shall not exceed the PTE listed in Tables III-B-1 through III-B-5. The emission limits in Tables III-B-2 and III-B-3 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-i are met. Emission limits of Table III-B-1 include startup and shutdown emissions. [*NSR ATC/OP 00007, Modification 4 Revision 1, (03/20/07), and NSR ATC/OP 00007, Modification 5, Section III-B (10/01/08)*]
- g. The Permittee shall not exceed the emission limits for each emission unit during allowable exceedences, as listed in Table III-B-4. [*NSR ATC/OP 00007, Modification 5 (10/1/08)*]

**Table III-B-4: Emission Rates for Turbine Units 5 through 8, Allowable Exceedences<sup>1</sup>**

EU	NO <sub>x</sub> ppm (at 15% O <sub>2</sub> on a one-hour average)	lbs NO <sub>x</sub> per MMBtu <sup>2</sup>
A00701A, A00702B, A00705, A00708	32.0 (per unit)	0.12 (per unit)

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

<sup>2</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. 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-h-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-6; 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-h-i through iv.
- i. The conditions of III-B-1-h 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-h. All NO<sub>x</sub> emissions during these 1-hour periods covered by III-B-1-h shall be included when calculating the yearly 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)*]

## 2. Operational Limits

- a. The Permittee shall limit the throughput of the lime silo (EU: A00709) to 8,640 tons per any consecutive 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 any consecutive 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 (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 each Turbine, Unit 11 through 22 (EUs: A27 through A38), to 3,500 hours per year. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-A-3 (03/20/07)]*
- e. The Permittee shall limit the number of startups and shutdowns of each Turbine, Units 11 through 22 (EUs: A27 through A38), to 350 startups and 350 shutdowns per year. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-A-3 (03/20/07)]*
- f. The Permittee shall limit the operation of the emergency generator (EU: A21) for testing and maintenance purposes to 100 hours per year. The Permittee may operate the emergency generator up to 50 hours per year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. The 50 hours per year for nonemergency situations cannot be used for peak shavings or demand response, except as provided in 40 CFR 63.6640(f)(4). *[40 CFR 63.6640]*
- g. The Permittee shall limit the operation of the emergency fire pump (EU: A45) for testing and maintenance purposes to 100 hours per year. The Permittee may operate the emergency fire pump up to 50 hours per year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. *[40 CFR 60.4211]*
- h. The Permittee shall limit the gasoline throughput (EUs: A43) to 10,000 gallons per month. *[AQR 12.5.2.6]*
- i. The Permittee shall limit operation of each natural gas turbine unit to the heat input limits listed in Table III-B-5 based on the LHV: *[NSR ATC Modification 4 Revision 1, Condition III-A (02/09/07)]*

**Table III-B-5: Natural Gas Turbine Units Heat Input Limits**

Emission Unit	Clark Station Designation	Natural Gas
A00704D	Turbine Unit 4	899 MMBtu/hr
A00701A	Turbine Unit 5	1,081 MMBtu/hr
A00702B	Turbine Unit 6	1,081 MMBtu/hr
A00705	Turbine Unit 7	1,081 MMBtu/hr
A00708	Turbine Unit 8	1,081 MMBtu/hr
A27	Turbine Unit 11	541 MMBtu/hr
A28	Turbine Unit 12	541 MMBtu/hr
A29	Turbine Unit 13	541 MMBtu/hr
A30	Turbine Unit 14	541 MMBtu/hr
A31	Turbine Unit 15	541 MMBtu/hr
A32	Turbine Unit 16	541 MMBtu/hr
A33	Turbine Unit 17	541 MMBtu/hr
A34	Turbine Unit 18	541 MMBtu/hr
A35	Turbine Unit 19	541 MMBtu/hr
A36	Turbine Unit 20	541 MMBtu/hr
A37	Turbine Unit 21	541 MMBtu/hr
A38	Turbine Unit 22	541 MMBtu/hr

### 3. Emission Controls

#### Turbine Units 5 through 8

- a. 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:
  - 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).
- b. 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 for each turbine. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-19 (03/20/07)]*
- c. 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 Startup of a unit operating in combined cycle mode. Cold Steam Turbine Startup means the startup of a power block when the steam turbine first stage base metal temperatures are below 250 degrees F. A Cold Steam Turbine Startup 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. *[ATC Modification 5, Condition IV-E-8 (10/1/08)]*

#### Turbine Units 11 through 22 (Peaker Units)

- d. For Turbines 11 through 22 (EUs: A27 through A38), each startup or shutdown is limited to one (1) hour. A startup for these units shall commence with the combustion of fuel in either or both turbines of the unit, and a shutdown shall terminate with the cessation of fuel combustion in either or both turbines of the unit. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-5 (03/20/07)]*
- e. Selective Catalytic Reduction (SCR) shall be installed on Turbines 11 through 22 (EUs: A27 through A38). NO<sub>x</sub> exhaust emissions shall be further controlled with water injection and good combustion practice. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-12 (03/20/07)]*
- f. Each SCR system shall be maintained and operated on Turbines 11 through 22 (EUs: A27 through A38) in accordance with manufacturer's specifications. SCR shall be operated at all times the associated turbine unit is operating, excluding periods of startup and shutdown. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-13 (03/20/07)]*
- g. The Permittee shall operate each SCR system such that NO<sub>x</sub> emissions will not exceed the applicable limitations for associated turbine units listed in Tables III-B-1 and III-B-3. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-14 (03/20/07)]*
- h. The Permittee shall install, operate, and maintain an oxidation catalysts to control CO and VOC emissions on Turbines 11 through 22 (EUs: A27 through A38) in accordance with manufacturer's specifications. The catalysts shall be operated at all times the associated turbine

units are operating, excluding periods of startup and shutdown. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-15 (03/20/07)]*

- i. The Permittee shall operate each oxidation catalyst on Turbine Units 11 through 22 (EUs: A27 through A38) such that CO and VOC emissions do not exceed the applicable limits listed in Tables III-B-1 and III-B-3. *[NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-B-16 (03/20/07)]*

#### Silos

- j. The Permittee shall ensure that the baghouse on the lime silo and soda ash silos (EUs: A00709 through A00711) 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)]*

#### Cooling Towers (EUs: A00712 and A00713)

- k. The Permittee shall operate the cooling towers with drift eliminators that have 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)]*
- l. The Permittee shall limit the TDS concentration in the cooling towers process water to 12,000 ppm on a 30-day rolling average. *[NSR ATC/OP 00007, Modification 4 Revision 1, Conditions III-A-6 and III-B-7 (03/20/07)]*

#### Diesel Engines

- m. The Permittee shall combust only diesel fuel with a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume in the fire pump (EU: A45). *[NSR ATC 00007, Modification 6, Conditions IV-D-4, (04/27/09)]*
- n. The Permittee shall operate the fire pump (EU: A45) with turbocharger and aftercooler. *[NSR ATC 00007, Modification 6, Conditions IV-D-1, (04/27/09)]*
- o. Beginning January 1, 2015, The Permittee shall only combust diesel fuel with a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume in the emergency generator (EU: A21). *[40 CFR 63.6604(a)]*
- p. The diesel emergency generator (EU: A21) is subject to the provisions of 40 CFR 63, Subpart ZZZZ and shall comply with the following requirements:
  - i. Change the oil and filter every 500 hours of operation or annually whichever comes first;
  - ii. Inspect air cleaner every 1,000 hours of operation or annually whichever comes first; and
  - iii. Inspect all hoses and belts every 500 hours of operation or annually whichever comes first and replace if needed.
- q. The Permittee shall operate and maintain each of the diesel emergency generators in accordance with the manufacturer's specifications. *[AQR 12.5.2.6(a)]*

#### Gasoline Dispensing

- r. 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]

#### Other

- s. 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)]
- t. The Permittee must comply with the control requirements contained in this section. If there is inconsistency between standards or requirements, the most stringent standard or requirement shall apply.

#### **C. Monitoring**

1. The Permittee shall comply with applicable monitoring requirements of 40 CFR 60 Subparts A, and GG by maintaining CEMS on Turbine Units 5 through 8 (EUs: A00701A through A00708) and 40 CFR 60 Subparts A and KKKK on Turbine Units 11 through 22 (EUs: A27 through A38). [AQR 12.5.2.6]
  - a. Required periodic audit procedures and QA/QC procedures for CEMS shall conform to the provisions of 40 CFR 60 and 40 CFR 75.
  - b. Relative Accuracy Test Audits (RATA) of the CO, NO<sub>x</sub> and O<sub>2</sub> CEMS shall be conducted at least annually.
2. The Permittee shall comply with applicable monitoring requirements of 40 CFR 63 Subpart CCCCC by maintaining records of gasoline throughput. [12.5.2.6/AQR 19.4.1.3(a)]
3. Emissions of NO<sub>x</sub> and/or CO greater than the applicable limits outlined in this operating permit, as determined by the NO<sub>x</sub> and CO CEMS, shall be considered a violation of the emission limits of this permit and may result in enforcement action. However, compliant CEMS data does not preclude the use of other credible evidence in determining or showing compliance. [AQR 12.5.2.6/AQR 19.4.1.3(a)]

#### Turbine Units 5 through 8

4. To demonstrate continued direct compliance with operational limitations and the hourly, and/or yearly 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 12.5.2.6/AQR 19.4.1.3(a)]
5. The source shall maintain a Quality Assurance Plan (QAP) for CEMS. The QAP is binding and consistent with the regulations. The QAP 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. The QAP for CEMS required for Turbines 5 through 8 (EUs: A00701A, A00702B, A00705 and A00708) has already been submitted to and accepted by the Control Officer. [AQR 12.5.2.6/AQR 19.4.1.3(a)]
6. For Turbine Units 5 through 8 (EUs: A00701A through A00708), to determine 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 startup 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 startup or shutdown intervals, is required to determine compliance with the 5 ppm NO<sub>x</sub> emission rate, on a 1-hour average. [ATC Modification 5, Condition IV-E-7 (10/1/08)]

Turbine Units 11 through 22 (Peaker Units)

7. For Turbines 11 through 22 (EUs: A27 through A38), each CEMS shall monitor and record at least the following data:
- exhaust gas concentration of NO<sub>x</sub>, CO, and diluent O<sub>2</sub>;
  - exhaust gas flow rate (by direct or indirect methods);
  - fuel flow rate;
  - hours of operation;
  - one-hour clock averages for NO<sub>x</sub>, and CO concentrations;
  - hourly mass emissions of NO<sub>x</sub> and CO; and
  - hours of downtime of the CEMS. [AQR 12.5.2.6/AQR 19.4.1.3(a)]
8. For Turbine Units 11 through 22 (EUs: A27 through A38), all emissions recorded by CEMS shall be reported in clock-hour increments. Any clock hour that contains any part of a startup or shutdown event on either or both turbines of the unit shall not be subject to the limits in Tables III-B-2 or III-B-3.
9. QAP for CEMS associated with Turbine Units 11 through 22 (EUs: A27 through A38) are binding and shall be consistent with the regulations. The CEMS shall conform to all provisions of 40 CFR 60.13, and 40 CFR 60 Subpart KKKK. Audit procedures shall conform to the provisions of 40 CFR 60 Appendix F, except in so far as 40 CFR 60 Subpart KKKK allows the use of 40 CFR 75 provisions. The QAP shall contain auditing schedules, reporting schedules and design specifications for the CEMS systems. The QAP for CEMS required for Turbine Units 11 through 22 has already been submitted to and accepted by the Control Officer. [NSR ATC/OP 00007, Modification 4 Revision 1, Condition III-E-9 (03/20/07)]

Cooling Towers (EUs: A00712 and A00713)

10. The Permittee shall monitor the TDS in the cooling tower circulating water daily when operating. The Permittee shall use the conductivity measurements for TDS monitoring or equivalent method approved in advance by the Control Officer. [AQR 12.5.2.6]

Diesel Engines

11. The Permittee shall operate each emergency engine (EUs: A21 and A45) with a nonresettable hour meter and monitor the duration of operation for testing, maintenance, and non-emergency operation, and separately for emergencies. [NSR ATC 00007, Modification 6, Conditions IV-E-1, (04/27/09)]
12. The Permittee shall monitor the sulfur content, and cetane index or aromatic content of the fuel burned in the fire pump (EU: A45) by retaining a copy of vendor fuel specifications. [AQR 12.5.2.6(d)(1)(B)]
13. Beginning January 1, 2015, the Permittee shall monitor the sulfur content, and cetane index or aromatic content of the fuel burned in the emergency generator (EU: A21) by retaining a copy of vendor fuel specifications. [40 CFR 63.6604(b) and AQR 12.5.2.6(d)(1)(B)]

Other

14. 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 and A45) 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 12.5.2.6 and 40 CFR 70.6]

**D. Testing**

1. Performance testing is subject to the current Air Quality guidelines on performance/source testing.
2. The baghouses shall be performance tested after each 8,760 hours of use. Table III-D-1 summarizes PM<sub>10</sub> performance test method for all baghouses. [AQR 12.5.2.6]

**Table III-D-1: 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 or 17	Every 8,760 hours of use

**E. Record Keeping**

1. The Permittee shall comply with all applicable record keeping requirements of 40 CFR 60.7, 40 CFR 60 Subpart GG, 40 CFR 60 Subpart IIII, 40 CF 60 Subpart KKKK, 40 CFR 72, 40 CFR 75 Subpart F, and 40 CFR 63 Subpart ZZZZ and CCCCCC.
2. The Permittee shall maintain records on-site that require semi-annual reporting and include, at a minimum: [AQR 12.5.2.6/AQR 19.4.1.3(b)]
  - 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. all CEMS information required by 40 CFR 75, including a CEMS monitoring plan, as well as time, duration, nature and probable cause of any CEMS downtime and corrective actions taken;
  - d. monthly CEMS NO<sub>x</sub> and CO;
  - e. monthly and each consecutive 12-month total hours of operation for the peaker turbine generators (EUs: A27 through A38);
  - f. annual hours of operation of the emergency generator and fire pump for testing, maintenance, and non-emergency use (EUs: A21 and A45);
  - g. date and duration of operation of the emergency generator and fire pump for emergency use, including documentation justifying use during the emergency (EU: A21 and A45);
  - h. dates, times, and duration of each turbine startup and shutdown event;
  - i. startup and shutdown emissions per turbine in pounds per hour and yearly emissions, including startup, shutdown and normal operations, in tons per each consecutive 12-month period;
  - j. monthly and each consecutive 12-month total quantity of natural gas consumed in each gas turbine;
  - k. monthly and each consecutive 12-month total throughput of the lime silo and each soda ash silo (EUs: A00709, A00710, and A00711); and
  - l. monthly and each consecutive 12-month total gasoline throughput (EU: A43) pursuant to 40 CFR 63.11116(b).
3. The Permittee shall maintain records on-site that include, at a minimum: *[AQR 12.5.2.6]*
- a. sulfur content of natural gas;
  - b. sulfur content and cetane index or aromatic content of diesel fuel used to power the fire pump (EU: A45) as certified by the supplier;
  - c. beginning January 1, 2015, the sulfur content and cetane index or aromatic content of diesel fuel used to power the emergency generator (EU: A21) as certified by the supplier;
  - d. daily TDS content of tower circulation of each cooling tower water, when operating (EUs: A00712 and A00713);
  - e. log of visible emission checks;
  - f. annual copies of all reports, compliance certifications, other submissions and all records made or required under the Acid Rain Program;
  - g. copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program to demonstrate compliance with the requirements of the Acid Rain Program; and
  - h. results of performance testing.
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 12.5.2.6]*
5. Records and data required by this operating permit to be maintained by 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 AQR 12.5.2.8(b)]*

6. All records and logs, or a copy thereof, shall be kept on-site for a minimum of five (5) years from the date the measurement was taken or data was entered and shall be made available to DAQEM upon request. [AQR 12.5.2.6]
7. 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 12.5.2.6(d)(4)(B)]
8. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. [AQR 12.5.2.6]

#### F. Reporting

1. All report submissions shall be addressed to the attention of the Control Officer. [AQR 12.5.2.6(d), AQR 14.3, AQR 21.4, and AQR 22.4]
2. All reports shall contain a certification of truth, accuracy, and completeness by the responsible official. [AQR 12.5.2.6 and AQR 12.5.2.6(l)]
3. The Permittee shall submit semi-annual reports to the Control Officer. [AQR 12.5.2.6]
4. The following requirements apply to semi-annual reports: [AQR 12.5.2.6]
  - a. The report shall include a semi-annual summary of each item listed in Section III-E-2.
  - b. The report shall include semi-annual summaries of any permit deviations, their probable cause, and corrective or preventative actions taken.
  - c. The report shall be submitted to Air Quality within 30 calendar days after the due date.
5. Regardless of the date of issuance of this permit, the schedule for the submittal of reports to the Control Officer shall be as outlined in Table III-F-1: [AQR 12.5.2.6(d)]

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

Required Report	Applicable Period	Due Date <sup>1</sup>
Semi-annual Report for 1st half of the year.	January, February, March, April, May, June	July 30 each year
Semi-annual Report for 2nd half of the year. Any additional annual records required.	July, August, September, October, November, December	January 30 each year
Annual Compliance Certification	Calendar Year	January 30 each year
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within 24 hours of the time the Permittee first learns of the excess emissions
Excess Emission Report	As Required	Within 72 hours of the notification
Deviation Report	As Required	Along with semi-annual 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 a Federal or Nevada holiday, then the submittals are due on the next regularly scheduled business day.

6. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit conditions, permit requirements, and requirements of applicable federal regulations. [AQR 4.4 and AQR 12.5.2.6]

7. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72 and 40 CFR 75. [40 CFR 72.9(f)]

#### **G. Mitigation**

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

#### **IV. ACID RAIN REQUIREMENTS**

1. In accordance with the provisions of Title IV of the Clean Air Act and 40 C.F.R. Parts 72 through 77, this Acid Rain Permit is issued to Nevada Power Company dba NV Energy Clark Station, Las Vegas, Nevada.
2. All terms and conditions of the permit are enforceable by Air Quality and EPA under the Clean Air Act. [40 CFR 72]
3. The Permittee shall comply with all the applicable requirements of the Acid Rain Permit Application located in Attachment 2. [40 CFR 72.30]
4. This Acid Rain permit incorporates the definitions of terms in 40 CFR Part 72.2.
5. This permit is valid for a term of five (5) years from the date of issuance unless a timely and complete renewal application is submitted to Air Quality. [40 CFR 72.69]
6. A timely renewal application is an application that is received at least six months prior to the permit expiration date. [40 CFR 72.30]
7. Emissions from this source shall not exceed any allowances that the source lawfully holds under Title IV of the Act or its regulations. [AQR 12.5.2.6 and 40 CFR 70.6(a)(4)]

#### **V. 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 CFC or 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]

#### **VI. 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: [AQR 12.5.2.9]

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

<b>Citation</b>	<b>Title</b>
CCAQR Section 14.1.56 Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines

**Table V-2: Streamlined requirements Related to Permit Shield**

Regulation (40 CFR)	Pollutant	Regulatory Standard	Permit Limit	Value Comparison			Averaging Comparison			Shield Statement
				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	
<b>Turbines 5 through 8</b>										
60.332 (GG)	NO <sub>x</sub>	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.
60.333 (GG)	SO <sub>2</sub>	0.15% by volume @ 15% O <sub>2</sub>	1.62 lbs/hr	830 <sup>2</sup>	1.62	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.
<b>Turbines 11 through 22</b>										
60.4325 (KKKK)	NO <sub>x</sub>	25 ppmvd @ 15% O <sub>2</sub>	5.0 ppmvd @ 15% O <sub>2</sub>	15	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.
60.4330	SO <sub>2</sub>	0.06 lbs/MMBtu	0.00066 lbs/MMBtu	0.06	6.6 E-04	Yes	N/A	N/A	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 NO<sub>x</sub> standard is a formula; the value used here (75 ppmvd) is the minimum possible value of the standard for any emission unit.

<sup>2</sup>Heat input used to calculate SO<sub>2</sub> standard value (in units of the permit limit) is the permit limit of 1081 MMBtu/hr.

**ATTACHMENT 1 – APPLICABLE REGULATIONS****REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:**

1. NRS, Chapter 445B.
2. Applicable AQR Sections:

<b>Citation</b>	<b>Title</b>
AQR Section 00	Definitions
AQR Section 4	Control Officer
AQR Section 5	Interference with Control Officer
AQR Section 8	Persons Liable for Penalties – Punishment: Defense
AQR Section 9	Civil Penalties
AQR Section 10	Compliance Schedule
AQR Section 12.4	Authority to Construct Application and Permit Requirements for Part 70 Sources
AQR Section 12.5	Part 70 Operating Permit Requirements
AQR Section 14.1.13	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978
AQR Section 14.1.15	Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units
AQR Section 14.1.56	Standards of Performance for New Stationary Sources (NSPS) – Standards of Performance for Gas Turbines
AQR Section 18	Permit and Technical Service Fees
AQR Section 21	Acid Rain Continuous Emissions Monitoring
AQR Section 22	Acid Rain Permits
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 28	Fuel Burning 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 70	Emergency Procedures
AQR Section 80	Circumvention

3. CAAA, Authority: 42 U.S.C. § 7401, et seq.
4. Applicable 40 CFR Subsections:

<b>Citation</b>	<b>Title</b>
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
40 CFR 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978
40 CFR 60, Subpart Dc	Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units
40 CFR 60, Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Citation	Title
40 CFR 60, Subpart KKKK	Standards of Performance for New Stationary Sources (NSPS) – Stationary Combustion Turbines
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 64	Compliance Assurance Monitoring
40 CFR 70	Federally Mandated Operating Permits
40 CFR 72	Acid Rain Permits Regulation
40 CFR 73	Acid Rain Sulfur Dioxide Allowance System
40 CFR 75	Acid Rain Continuous Emission Monitoring
40 CFR 82	Protection of Stratospheric Ozone

**ATTACHMENT 2 – ACID RAIN PERMIT APPLICATIONS**



United States  
 Environmental Protection Agency  
 Acid Rain Program

OMB No. 2060-0258  
 Approval expires 11/30/2012

**Acid Rain Permit Application**

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ~ new ~ revised ~ for Acid Rain permit renewal

**STEP 1**

Identify the facility name, State, and plant (ORIS) code.

Facility (Source) Name	Clark Station	State	Nevada	Plant Code	2322
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**STEP 2**

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
11A	Yes
11B	Yes
12A	Yes
12B	Yes
13A	Yes
13B	Yes
14A	Yes
14B	Yes
15A	Yes
15B	Yes
16A	Yes
16B	Yes
17A	Yes
17B	Yes
18A	Yes
18B	Yes
19A	Yes
19B	Yes

Acid Rain - Page

Facility (Source) Name (from STEP 1) Clark Station
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20A	Yes
20B	Yes
21A	Yes
21B	Yes
22A	Yes
22B	Yes

### **Permit Requirements**

#### **STEP 3**

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

### **Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 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.

### **Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (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 affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (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.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) 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).

### **Sulfur Dioxide Requirements, Cont'd.**

#### **STEP 3, Cont'd.**

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

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator 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 an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

### **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 oxides.

### **Excess Emissions Requirements**

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

### **Recordkeeping and Reporting Requirements**

(1) Unless otherwise provided, the owners and operators of the source and 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 or permitting authority:

(i) 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;

**Recordkeeping and Reporting Requirements, Cont'd.****STEP 3, Cont'd.**

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) 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.
- (2) The designated representative of an affected source and 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.

**Liability**

- (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 an exemption under 40 CFR 72.7 or 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.
- (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.
- (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.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (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.
- (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.
- (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.

**Effect on Other Authorities**

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

- (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 of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

**Effect on Other Authorities, Cont'd.**

STEP 3, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

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

(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;

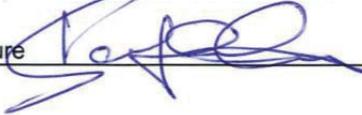
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

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

**Certification**

STEP 4  
Read the certification statement, sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Kevin C. Geraghty	
Signature 	Date 8/5/2014