TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
APPLICATION FOR A PART 70 OPERATING PERMIT

SUBMITTED BY

NEVADA POWER COMPANY

for

CLARK STATION

Part 70 Operating Permit Number: 7
SIC Code - 4911: Electric Utility Services

Clark County
Department of Air Quality and Environmental Management
Permitting Section

November, 2009

EXECUTIVE SUMMARY

Nevada Power Company's (NPC) Clark Generating Station is located at 5640 Stephanie St, Las Vegas, Nevada 89122, in the Las Vegas Valley airshed, hydrographic basin number 212. Hydrographic basin 212 is nonattainment for CO, PM_{10}, and ozone, and PSD for all other regulated air pollutants.

This major stationary source has been in operation nearly 30 years. Averaging 697 MW, this source provides approximately 20 percent of the Valley's electrical requirements during the summer peak months, with lesser generation during the off-peak requirement months.

DAQEM has 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 initial Part 70 OP for this source. The revision to the Part 70 Operating Permit includes adding the Ultra Low NO_x Burner conditions and PTE to the permit for Turbine Units 5 through 8, removing the fuel oil burning option for Turbine Units 5 through 8, and adding an aboveground gasoline storage tank and dispensing nozzle (EU: A43).

Table I-1 lists the source PTE of the emission units subject to Part 70 requirements, but does not include any potential emission reductions based on the installation of the ULNB in Turbine Units 5 through 8. The ATC to install ULNBs in Turbine Units 5 through 8 was issued on October 8, 2008. An ATC/OP was also issued on March 20, 2007 which includes authority to construct provisions for additional emission units, twelve peaker units, three ammonia storage tanks, and a diesel emergency generator. These units are not incorporated into the Part 70 OP at this time. All generating and support processes at the site are grouped under the Standard Industrial Classification 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:

Pollutant	PM_{10}	NO_X	CO	SOx	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 the Operating Permit.

Pollutant	PM_{10}	NO_X	CO	SOx	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[1]	1.0

[1]Ten tons for any individual HAP or 25 tons for combination of all HAPs.

DAQEM has delegated authority to implement the requirement of the Part 70 OP program. The initial Part 70 OP was issued on November 3, 2003, ATC/OP Modification 3 was issued on October 30, 2003, ATC/OP Modification 4, Revision 1, was issued on March 20, 2007, and ATC

Modification 5 was issued on October 1, 2008. DAQEM received the renewal Part 70 OP application on June 14, 2007. DAQEM then received an application for Part 70 OP revision on December 22, 2007. The requested revision was to include Consent Decree requirements on Turbine Units 5 through 8 and request a permit shield be included with the revised Part 70 OP. On February 4, 2008, DAQEM received a letter from the source agreeing to incorporate a GDO in the Part 70 OP. Based on the information submitted by the applicant and a technical review performed by the DAQEM staff, the DAQEM proposes the renewal and revision of the Part 70 OP to NPC-Clark Station.

This Technical Support Document (TSD) accompanies the proposed Part 70 Operating Permit for Nevada Power – Clark Station.

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I. ACRONYMS

Table I-1: List of Acronyms

Acronym	Term
APCD	Air Pollution Control District
AQD	Air Quality District
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
CCHD	Clark County Health District
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
ERC	Emission Reduction Credit
EU	Emission Unit
GDO	Gasoline Dispensing Operation
HAP	Hazardous Air Pollutant
HP	Horse Power
HRSG	Heat Recovery Steam Generating Unit
H_2S	Hydrogen Sulfide
MMBtu	Millions of British Thermal Units
NEI	Net Emission Increase
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	Ammonia
NMHC	Non-Methane Hydro-Carbons
NO_X	Nitrogen Oxides
NOV	Notice of Violation
NPC	Nevada Power Company
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM_{10}	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RATA	Relative Accuracy Test Audit
RMP	Risk Management Plan
scf	Standard Cubic Feet
SIP	State Implementation Plan
SO_X	Sulfur Oxides

Acronym	Term
TCS	Toxic Chemical Substance
TDS	Total Dissolved Solids
TSD	Technical Support Document
TSP	Total Suspended Particulates
ULNB	Ultra Low NO_x Burner
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

II. SOURCE INFORMATION

A. General

Permittee	Nevada Power Company Clark Station
Mailing Address	PO Box 98910, MS #30 Las Vegas, NV 89151-0001
Contacts	Kevin Geraghty
Phone Number	(702) 367-5662
Fax Number	(702) 579-1682
Source Location	5640 Stephanie St. Las Vegas, NV 89122
Hydrographic Area	212
Township, Range, Section	T21S, R62E, Section 28
SIC Code	4911 – Electric Services
NAICS Code	22111 - Electric Power Generation

B. Description of Process

NPC-Clark Station is a natural gas fired electric utility generating source consisting of several units which produce electricity. All generating and support processes at the site are grouped under SIC 4911 – Electric Services.

The emission units covered in this Part 70 OP are listed in Table III-C-1. Turbine Unit 4 is a simple cycle combustion turbine combusting natural gas only. Units 5 and 6 are operated as a combined cycle pair, where the exhaust gas is collected in the HRSG and used to turn steam-turbine Unit 10. Supplemental duct-firing is not used in the HRSG. No additional emissions result from the operation of Unit 10. Turbine Units 7 and 8 are also a combined cycle island pair with the same operational configuration as Units 5 and 6. Unit 9 is the steam turbine associated with Units 7 and 8. Turbine Units 5 through 8 burn only natural gas, as they are no longer permitted to burn Number Two fuel oil as a result of NSR Modification 5. NPC-Clark Station is a major source for PM_{10}, NO_x, CO, and VOC and a non-major source for SO_2 and HAPs. Thus, it is not subject to MACT review. CEMS for NO_X and CO are installed on Turbine Units 5, 6, 7 and 8.

Turbine Unit 4 is one of the last to be fired up in NPC's operating scenarios for providing Valley power. Turbine Units 5 and 6 are operated as a combined cycle pair tied into Steam Turbine Generator Unit 10. Turbine Units 7 and 8 are a combined cycle pair tied into Steam Turbine Generator Unit 9. The cooling towers for Units 9 and 10 are associated with the two combined cycle islands. At one point in time, the source used gray water in the cooling towers, thus the need for lime silos and soda ash silos. The original limits for the equipment are being

maintained in this permit as the emission units are still functional and can be used at the discretion of NPC.

Three ammonia storage tanks and a diesel emergency generator along with twelve (12) gas turbine units were added to the source in Modification 4 issued on February 9, 2007, but are not being incorporated into the Title V permit.

C. Permitting History

Clark Unit 4 is a single General Electric combustion turbine that became operational in 1975. A Registration Certificate for the combustion turbine was issued on February 4, 1975, and described the unit as Turbine Unit 4 – Electrical Generation with a capacity of 60 MW – Natural gas. There were no conditions attached to the registration certificate. This turbine has not undergone modification since its construction. The Public Service Commission of Nevada issued a Permit to Construct for Unit 4 on September 15, 1972. An ATC application for this unit was submitted on August 4, 1972. A "yellow ticket" operating permit with no additional conditions (Section 15 source registration) was issued by APCD on February 4, 1975. Turbine Unit 4 is not subject to 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines, as it was permitted prior to the October 1977 applicability date.

Turbine Units 5, 6, 7 and 8 were originally simple cycle combustion turbines that underwent a combined cycle upgrade adding HRSGs in 1988-1991. Turbine Units 5 and 6 are Westinghouse turbines placed in service in 1979. Section 15 registration certificates were issued on April 1, 1977, for Unit 5 and on August 15, 1977, for Unit 6. The emission limits listed in the subsequently issued April 1979 Operating Permits are summarized in Table II-C-1.

Table II-C-1: Units 5 and 6 Limitations, April 1979 Operating Permit

	TSP	SO_2	NMHC	CO
Pounds per hour	24.4	304	5	73
tons per year	106.9	1,331.5	21.9	319.7

With no limitations on oil operation, both units were permitted 8,760 hours per year. There were no limitations placed upon NO_X emissions for either unit.

Unit 7 was placed into service in 1980. Unit 8 went on line in 1981. The original application for an ATC for these two Westinghouse units was submitted to EPA, Region IX, on or about July 6, 1978, pursuant to federal PSD regulations. An amendment to the application was submitted to EPA on August 1, 1978, which revised emissions data to reflect water injection control for NO_X. EPA issued an ATC for Unit 7 on October 1, 1979. Fuel consumption limits, fuel sulfur content, and continuous water injection were stipulated as were emission limits in terms of pounds per MMBtu for NO_2, TSP, and CO. Unit 7 was also deemed subject to 40 CFR 60 Subparts A and GG. EPA issued an ATC for Unit 8 on September 11, 1980.

Registration Certificates pursuant to SIP approved Section 15 regulations were issued for Unit 7 on June 20, 1980, and on March 14, 1984, for Unit 8. No conditions beyond the EPA PSD conditions were attached. By March 14, 1984, initial permits had been obtained, either through DAQEM or EPA for Units 4 through 8.

Table II-C-2: NSR Permits Issued to NPC – Clark Station

Date Issued	Permit Number	Description
10/1/2008	ATC Modification 5	Installation of ULNB on Turbine Units 5 through 8.
3/20/2007	ATC/OP Modification 4, Revision 1	Permit revision to address administrative changes.
2/9/2007	ATC/OP Modification 4	ATC to add 12 peaker turbines. ATC/OP for a diesel emergency generator and three ammonia storage tanks.
10/30/2003	ATC/OP Modification 3	ATC/OP to add a diesel emergency fire pump.
5/23/2003	Modification 2	Consolidation of ATC/OPs
1/27/1993	OP	Units 9 and 10 cooling towers.
11/17/1991	ATC/OP	Two emergency generators
10/21/1988	ATC	ATC for Turbine Units 7 and 8 to become combined cycle units and for two cooling towers.
3/14/1984	Registration Certificate Permit No. 708	Turbine Unit 8
9/11/1980	EPA-Issued ATC	Turbine Unit 8
6/20/1980	Registration Certificate	Turbine Unit 7
10/1/1979	EPA-Issued ATC	Turbine Unit 7
8/15/1977	Registration Certificate	Turbine Unit 6
4/1/1977	Registration Certificate	Turbine Unit 5
2/4/1975	Registration Certificate Permit No. 704	"Yellow Ticket" for Turbine Unit 4

NPC filed an application to CCHD June 8, 1987, seeking approval to construct combined cycle additions to Turbine Units 5, 6, 7 and 8. Units 7 and 8 were identical in design and capacity to Units 5 and 6. The upgrade retrofit included matching each pair of combustion turbines with a waste heat recovery boiler. Waste heat from the four combustion turbines is introduced to two stream turbines adding a total of approximately 140 MW of generating capacity. As part of the combined cycle addition project, the four combustion turbines were also upgraded to produce an additional 2.5 MW each. This upgrade consisted of coating the turbine blades to allow higher operational temperatures, which in turn enabled the combustion turbines to burn additional fuel and produce more power. This modification essentially converted the turbines from base firing capability to peak firing capability.

An application for a modified source was submitted July 29, 1988, specifically to cover the increase in emissions associated with the combustion turbine upgrade. The turbine portion of the application was limited to Units 7 and 8. Historical letters in the file explain that because Units 5 and 6 were given different limitations from Units 7 and 8, and that the emissions would remain below the then current limitations for Units 5 and 6, no modification to Units 5 and 6 would be required. An application was submitted pursuant to the provisions of local only

approved AQR Section 12, adopted in 1987. This action in 1987 was corrected in ATC/OP 00007, Modification 2 issued on May 23, 2003.

ATC certificates were issued for turbine Units 7 and 8 and associated cooling tower on October 21, 1988. The emission limits were: PM: 28.1 pounds per hour; SO_2: 254.8 pounds per hour; NMHC: 5.3 pounds per hour; CO: 110.1 pounds per hour; and NO_x: 321.9 pounds per hour.

DAQEM issued an ATC authorizing the combined cycle upgrade on October 6, 1988, while the Public Service Commission of Nevada issued its Permit to Construct on or about December 22, 1988.

DAQEM issued operating permits covering the cooling towers for Units 9 and 10 on January 27, 1993. ATC/OPs for the emergency generators were issued November 17, 1999. ATC/OP Modification 3, issued on October 30, 2003, added an emergency fire pump.

A CAO (Number 413) was issued to NPC on November 15, 2000, and was accepted and signed by NPC on December 15, 2000. As a result of this CAO, Units 5 and 6 were subject to 40 CFR 60 Subpart GG, including "F" formula NO_X limitations, and AQR Section 11 ambient air standard limitations.

In addition, requirements of this CAO included CEMS for NO_X and CO, mandated water injection, performance testing, quarterly reporting, thorough record keeping and fuel oil limitations. It was also agreed that these requirements are to be included in the consolidated ATC/OP and the Title V permit.

On January 22, 1998, NPC notified the AQD of its intent to conduct performance testing of the Clark Station Turbine Units 7 and 8. NPC suspected that there was a potential that the turbine units could periodically exceed permitted NO_X mass emissions rates during portions of the year given to extremes in ambient temperature, humidity, unit load and water injection rates.

Westinghouse and an independent stack-testing firm conducted diagnostic performance testing in order to determine whether unit load, water injection rates and ambient conditions could cause occasional exceedances of permitted NO_X limits. Westinghouse was also tasked with developing water-to-fuel injection ratios for use in the turbine control logic that would automatically regulate water injection rates based upon fuel demanded by the turbine. The AQD subsequently issued CAO Number 3522 on May 5, 1998. The CAO was prompted in order to document what specific testing was to be accomplished and stipulate conditions for resolving any compliance issues discovered.

The result of the diagnostic testing confirmed that while the NO_X limit of 0.34 pounds per MMBtu set by the units' original PSD permit was met, potential exceedance of the NO_X mass emission limit of 321.9 pounds per hour under the Units' 7 and 8 upgrade permit was possible. NPC subsequently performed a retrofit of Turbine Units 7 and 8 which comprised the installation of additional water injection piping and newly specialized injection flanges (termed donuts) which increased the efficiency of the NO_X control mechanism.

CAO Number 4133, issued November 15, 2000, requires the same retrofit to Units 5 and 6. The cooling towers for steam turbine Units 9 and 10 were permitted on July 1, 1987, with listed limitations of NH_3, H_2S and VOCs. PM_{10} emissions were not addressed as cooling towers were not considered emission units for PM_{10}. The Department began permitting cooling towers not subject to the chromium NESHAPs as sources of particulate matter in 1997. Local ERCs, the road paving program which no longer exists, were assessed in 1998 and paid in 1999. At that time, it was determined that one cooling tower was exempt from assessment because it was originally constructed prior to the PM_{10} applicability date. NH_3, H_2S and VOC emissions from the cooling towers were associated with the use of gray water. Gray water is no longer used in the cooling towers and these limits have been removed.

On October 25, 2007, DAQEM received an application from NPC to install 5 ppm ULNBs in Turbine Units 5, 6, 7, and 8 to meet the requirements of Consent Decree Number 2:07-cv-00771. Under the terms of the Consent Decree, the Permittee agreed to apply for and install ULNBs on Turbine Units 5, 6, 7, and 8.

Table II-C-3: BACT Determinations for NPC – Clark Station

EU	Description	BACT Technology	BACT Limit
A00701A A00702B A00705 A00708	85 MW natural gas-fired electric turbine generators	Water injection (pre-ULNB installation)	25 ppmvd at 15% O_2 (pre-ULNB installation) (Consent Decree sets limit of 5 ppmvd at 15% O_2 after ULNB installation)
A00709	Lime Silo, 3,700 cubic feet.	Baghouse	Minimum control efficiency of 99 percent.
A00710	Soda Ash Silo (A), 4,160 cubic feet.		
A00711	Soda Ash Silo (B), 4,160 cubic feet.		
A00712 A00713	Cooling Towers, 53,000 gpm each	Limit of TDS; drift loss eliminators	12,000 ppm TDS, 0.002% drift loss.
A21	Kohler Diesel Generator	low sulfur diesel fuel (< 0.05%)	No limit imposed.
A22	Onan Diesel Generator		
A23	Diesel Fire Pump		

The revision to the Part 70 Operating Permit includes adding the Ultra Low NO_x Burner conditions and PTE to the permit for Turbine Units 5 through 8. These conditions originated from the Consent Decree. As a condition of the Consent Decree, this change is not considered a modification and the Permittee cannot claim offset credits.

In addition, the fuel oil burning option for Turbine Units 5 through 8 is removed from the permit. An aboveground gasoline storage tank and dispensing nozzle (EU: A43) are present at the source and are being added to the permit. This gasoline dispensing operation, formerly permitted on a "yellow ticket" is exempt from Clark County Air Quality Regulation 52 based on the annual throughput of less than 96,000 gallons and the construction date of December 13, 1990.

D. Operating Scenario

Turbine Unit 4 is a simple cycle combustion turbine combusting only natural gas and permitted to operate up to 8,760 hours per year. This turbine is one of the last to be fired up in NPC's operating scenarios for providing power. Turbine Units 5 and 6 are operated as a combined cycle pair tied into Steam Turbine Unit 10. Turbine Units 7 and 8 are a combined cycle unit tied into Steam Turbine Unit 9. All four of these gas turbines are permitted to operate on natural gas up to 8,760 hours per year. Formerly, these units were each permitted to operate up to 60 percent of the year (5,256 hours) firing Number two distillate oil. The use of Number two distillate oil has been removed from the permit in implementation of the Consent Decree.

Emission limitations have been established for each of these turbines based on 8,760 hours of natural gas fuel.

The cooling towers for Units 9 and 10 are associated with the two combined cycle islands, and are permitted for 8,760 hours of operation per year. At one point in time, the source used gray water in the cooling towers, thus the need for lime silos, soda ash silos and the NH_3 monitoring placed upon the cooling towers in 1993. In 1996, the NH_3 monitoring requirements were removed. Currently, the silos are not being used and there are no NH_3 emissions from the towers. The original limits for the equipment are being maintained in this permit to enable the source to use gray water again if deemed necessary as a water conservation measure.

E. Proposed Exemptions

NPC has not proposed any additional exemptions.

III. EMISSIONS INFORMATION

A. Source-wide Potential to Emit

The source PTE for pollutants (Table III-A-1), as presented in the Part 70 OP, reflects the permitted emission limits established in the November 3, 2003, permit, the October 30, 2003, permit (ATC/OP Modification 3), the October 1, 2008, permit (ATC Modification 5), and the yellow ticket (#9492) for the gasoline dispensing operation.

Table III-A-1: Maximum Source PTE (tons per year)

Pollutant	PM_{10}	NO_X	CO	SO_X	VOC	HAPs
tons/year	683.23	8,153.13	1,712.00	36.34	182.14	5.45

Emissions from the generating units are fuel dependent. Turbine Units 4 through 8 operate on natural gas. Emission limitations have been established for each of these turbines. Tables III-C-2 through III-C-9 list the emission limits for the various regulated pollutants for each emission unit. Source PTEs were calculated for the operation of 8,760 hours per turbine combusting natural gas. Non-fuel dependent emissions include the PM_{10} emissions from the cooling towers and the lime silos.

To facilitate matching emission units to EU numbers, refer to Table III-C-1.

B. Equipment Description

The air emission source equipment and associated major equipment is listed below. In addition, common support equipment exists to support the power generation equipment.

Power Equipment

1. EU: A00704D – One (1) General Electric 7B (7000), simple cycle combustion turbine, 65 MW nominal output (Turbine Unit 4).
2. EUs: A00701A, A00702B, A00705, and A00708 – Four (4) Westinghouse 501B5 with B6 upgrade, combustion turbines with 85 MW nominal output and no supplemental duct-firing (Turbine Units 5 through 8).

Common Support Equipment

1. EU: A00709 – Lime Silo, 3,700 cf.
2. EU: A00710 – Soda Ash Silo (A), 4,160 cf.
3. EU: A00711 – Soda Ash Silo (B), 4,160 cf.
4. EU: A00712 – Cooling Tower for Unit 9 steam turbine generator associated with Turbine Units 7 and 8 (EUs: A00705 and A00708), 53,000 gpm.
5. EU: A00713 – Cooling Tower for Unit 10 steam turbine generator associated with Turbine Units 5 and 6 (EUs: A00701A and A00702B), 53,000 gpm.
6. EU: A21 – Kohler Diesel Emergency Generator, 250 kW, 335.1 hp.
7. EU: A22 – Onan Diesel Emergency Generator, 250 kW, 335.1 hp.
8. EU: A23 – Diesel Emergency Fire Pump, 235 kW, 315 hp.
9. EU: A43 – One (1) 1,200 gallon above ground storage tank and one (1) single product dispensing nozzle (EU: A43).

C. Emission Units and PTE

The following tables summarize the emission units and the allowable limits for each emission unit.

Table III-C-1: Compilation of Emission Units

EU	Description	SCC	Type
A00704D	General Electric 7B (7000), Simple Cycle Combustion Turbine with 60 MW Nominal Output; Clark Unit 4. MEQ = 60 MW	20100201	TR1, MEQ
A00701A	Westinghouse 501B5 with ULNB, Combustion Turbine with 85 MW Nominal Output; No supplemental duct-firing; Clark Unit 5. MEQ = 85 MW	20100201	TR1, MEQ
A00702B	Westinghouse 501B5 with ULNB, Combustion Turbine with 85 MW Nominal Output; No supplemental duct-firing; Clark Unit 6. MEQ = 85 MW	20100201	TR1, MEQ
A00705	Westinghouse 501B5 with ULNB, Combustion Turbine with 85 MW Nominal Output; No supplemental duct-firing, Clark Unit 7. MEQ = 85 MW	20100201	TR1, MEQ
A00708	Westinghouse 501B5 with ULNB, Combustion Turbine with 85 MW Nominal Output; No supplemental duct-firing, Clark Unit 8. MEQ = 85 MW	20100201	TR1, MEQ
A00709	Lime Silo, 3,700 cubic feet.	30501613	S2
A00710	Soda Ash Silo (A), 4,160 cubic feet.	30102122	S2
A00711	Soda Ash Silo (B), 4,160 cubic feet.	30102122	S2
A00712	Cooling Tower for Unit 9 Steam Turbine Generator	38500110	P1
A00713	Cooling Tower for Unit 10 Steam Turbine Generator	38500110	P1
A21	Kohler Diesel Emergency Generator; M/N: N/A; 250 kW, 335.1 hp	20200102	DM
A22	Onan Diesel Emergency Generator; M/N: N/A; 250 kW, 335.1 hp	20200102	DM
A23	Diesel Emergency Fire Pump; M/N: N/A; 235 kW, 315 hp	20200102	DM

EU	Description	SCC	Type
A43	One Gasoline Dispensing Operation, Consisting of a 1,200 gallon aboveground storage tank and One Product Nozzle, Storing Regular Unleaded Gasoline	40600306	T2

[1]Type designates emissions unit billing: TR1 = Turbine 2.5 MW or larger; MEQ = megawatt equivalent; DM = deminimus emission unit; T1 = Storage Tank, > 40,000 gal.

Emission limitations in this document refer to pounds per MMBtu, pounds per hour, and tons per year. The terms “year” and “annual” in this permit refer to any consecutive 12-month period.

Insignificant (deminimus) emission units at the source include diesel storage tanks, generator lube oil tanks, a steam turbine lube oil tank, a steam turbine lube oil conditioner tank, an oil/water sump, gas turbine lube oil tanks, calibration gases, and mobile sources which include a portable engine for welding, forklifts, trucks, and other vehicles. These units and processes were listed in the Part 70 OP application. None are large enough or otherwise qualify as emission units to be included in the PTE for the source.

TABLE III-C-2: Source Potential to Emit, All Turbines on Natural Gas, 8,760 Hours per Year with Ancillary Equipment[1]

EU	PM_{10}		NO_x				CO			SO_2		VOC	
	lbs/hr	tons/yr	ppm[3] @15% O_2	lbs/ MMBtu	lbs/hr	tons/yr	lbs/ MMBtu	lbs/hr	tons/yr	lbs/hr[4]	tons/yr	lbs/hr[4]	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[2]	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
A43	--	--	--	--	--	--	--	--	--	--	--	0.01[2]	0.01[2]
Source PTE (tpy)		**683.23**				**2,092.93**			**1,712.00**		**36.34**		**182.14**

[1]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.

[2]Beginning January 1, 2010, the consent decree defines long term NO_x emission limits for Turbine Units 5 through 8 combined. For calendar year 2009 only, Turbine Units 5 and 8 have a combined NOx emission limit of 180 tons.

[3]On a one-hour average. These emission limits are based on the consent decree limit of 5 ppm with ULNB.

[4]These short-term emission limits are not federally enforceable.

TABLE III-C-3: Source-Wide HAP Emissions (tons per year)

HAP	Unit 4 (EU: A00704D)[1,2]	Per Each Turbine Unit 5-8 (EUs: A00701A, A00702B, A00705 A00708)[1,2,3]	Per Each of Two 250 kW Generators (EUs: A21 and A22)[4]	Existing Fire Pump (EU: A23)	Total for Gasoline Storage Tank (EU: A43)[5]	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
Total Per Unit	--	**1.12**	**0.01**	--	--	--
Total Combined	**0.93**	**4.48**	**0.01**	**0.01**	**0.01**	**5.45**

[1]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.
[2]Based on HHV heat inputs of 997.9 (Unit 4) and 1,199.9 (Units 5-8 gas).
[3]Emission factors from AP-42, Volume 1, Chapter 3, Tables 3.1-4 and 3.1-5, Supplement F.
[4]Emission factors from AP-42 Volume 1, Section 3, Table 3.3-2, Supplement F.
[5]Not a federally enforceable limit; value is an estimate for informational purposes only. Based on a throughput of 5,500 gallons per year.

TABLE III-C-4: Source-Wide HAP Emissions (pounds per hour)

HAP	Unit 4 (EU: A00704D)[1,2]	Per Each Turbine Unit 5-8 (EUs: A00701A, A00702B, A00705 A00708)[1,2,3]	Per Each of Two 250 kW Generators (EUs: A21 and A22)[4]	Existing Fire Pump (EU: A23)	Total for All Units
1,3-Butadiene	5.15E-04	5.16E-04	1.10E-04	1.03E-04	**1.24E-03**
Acetaldehyde	4.79E-02	4.79E-02	2.16E-03	2.03E-03	**1.00E-01**
Acrolein	7.66E-03	7.67E-03	2.60E-04	2.45E-04	**1.58E-02**
Arsenic	--	--	--	--	**--**
Cadmium	--	--	--	--	**--**
Beryllium	--	--	--	--	**--**
Chromium	--	--	--	--	**--**
Lead	--	--	--	--	**--**
Manganese	--	--	--	--	**--**
Formaldehyde	1.83E-02	1.84E-02	3.32E-03	3.12E-03	**4.31E-02**
Mercury	--	--	--	--	**--**
Nickel	--	--	--	--	**--**
Benzene	1.56E-03	1.56E-03	2.63E-03	2.47E-03	**8.22E-03**
Ethyl Benzene	3.83E-02	3.84E-02	--	--	**7.67E-02**
Selenium	--	--	--	--	**--**
Naphthalene	1.56E-03	1.56E-03	--	--	**3.12E-03**
Toluene	2.51E-02	2.51E-02	1.15E-03	1.08E-03	**5.24E-02**
Propylene Oxide	3.47E-02	3.47E-02	7.26E-03	6.83E-03	**8.35E-02**
Xylenes	7.66E-02	7.67E-02	8.02E-04	7.54E-04	**1.55E-01**
PAHs	2.63E-03	2.65E-03	4.73E-04	4.45E-04	**6.20E-03**
Total per Unit	--	**0.26**	**0.02**	--	--
Total Combined	**0.25**	**1.02**	**0.04**	**0.02**	**0.55**

[1]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.
[2]Based on HHV heat inputs of 997.9 (Unit 4) and 1,199.9 (Units 5-8).
[3]Emission factors from AP-42, Volume 1, Chapter 3, Tables 3.1-4 and 3.1-5, Supplement F.
[4]Emission factors from AP-42 Volume 1, Section 3, Table 3.3-2, Supplement F.

Table III-C-5: PTE of Modified Units, Including Startup and Shutdowns (tons per year)[1]

EU	PM_{10}	NO_X	CO	SO_2	VOC
A00701A	106.90	360.00[2]	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

[1]All values are federally enforceable emission limits. NO_x emission limits are based on the consent decree limit of 5 ppm with ULNB. SO_2 limits are based on natural gas sulfur content limit of 0.5 grains/100 dscf.
[2]Beginning January 1, 2010, the consent decree defines long term NO_x emission limits for Turbine Units 5-8 combined. For calendar year 2009 only, Turbine Units 5 and 8 have a combined NO_x emission limit of 180 tons.

Table III-C-6: Emission Rates for Turbine Units 5 through 8, Normal Operations after ULNB Installation

EU	NO_X ppm[1]	lbs NO_X per MMBtu[2]	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

[1]At 15% O_2 on a one-hour average.
[2]NO_x EF = (5 ppm/1,000,000)*(1 lb mol/385.3 dscf)*(46.01 lb NO_2/lb mol)*(8,710 dscf/mmBtu)*(20.9/20.9-15)

Table III-C-7: Short –Term PTE, Excluding Start up and Shutdowns, for Turbine Units 5 through 8 (lbs/hr)[1]

EU	PM_{10}	NO_X	CO	SO_2[2]	VOC[2]
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

[1]All values are federally enforceable emission limits unless otherwise noted.
[2]These short-term emission limits are not federally enforceable.

Table III-C-8: Startup/Shutdown PTE per Turbine Unit for Units 5 through 8 (lbs/event)

EU	PM_{10}	NO_X	CO	SO_2	VOC
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

Table III-C-9: Emission Rates for Turbine Units 5 through 8, Allowable Exceedences, after ULNB Installation [1]

EU	NO_X ppm[2]	lbs NO_X per MMBtu[3]
A00701A	32.0	0.12
A00702B	32.0	0.12
A00705	32.0	0.12
A00708	32.0	0.12

[1]Allowable exceedences are subject to the requirements of Condition IV-B-1-f in the Part 70 Permit.
[2]At 15% O_2 on a one-hour average.
[3]NO_x EF = (32 ppm/1,000,000)*(1 lb mol/385.3 dscf)*(46.01 lb NO2/lb mol)*(8,710 dscf/mmBtu)*(20.9/20.9-15)

D. Performance Testing

The purpose of performance testing is to ensure equipment and/or processes are operated so as not to exceed the permitted emission limits. Performance testing is a compliance tool for both the agency and the Permittee.

Performance testing is required for Turbine Units 5 through 8 for NOx, CO, VOCs and PM_{10} once every five years. In addition, Unit 7 must be tested for PM annually unless a waiver is obtained from EPA, Region IX. Initial performance tests for Turbine Units 5 through 8 have been conducted.

Turbine Unit 4 (EU: A00704D) has no enforceable short-term limitations. Turbine Unit 4 shall be performance tested for NO_x 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.

There are no performance test requirements for the cooling towers or the emergency generators. The baghouses must be performance tested for PM_{10} 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.

Particulate matter performance testing for turbine operation of Unit 7 using natural gas shall be conducted annually and within 60 days of the anniversary date of the previous performance test. This annual testing is a requirement from the PSD permit (NV 78-01, Condition VIII-D-2, 10/01/79). The performance testing is subject to DAQEM's "Guideline on Performance Testing" (as revised). The required performance testing will be performed using the following methods:

Table III-D-1: Performance Testing Requirements (40 CFR 60, Appendix A)

Test Point	Pollutant	Method	Frequency
Turbine/HRSG Exhaust Stack	NO_X	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	EPA Method 25a	Every 5 years
Turbine/HRSG Exhaust Stack	PM_{10}	EPA Method 201/202 or 201A/202	Every 5 years -- Annually for Turbine 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

E. Continuous Emissions Monitoring

The purpose of CEMS is to ensure equipment and/or processes are operated so as not to exceed the permitted emission limits. CEMS is a compliance tool for both the agency and the Permittee.

For this source, CEMS measures NO_X, CO, and O_2 emissions from the exhaust stacks of Turbine Units 5 through 8 on a continuous basis. Annual RATA for each CEMS unit is required to ensure the monitoring system is operating properly. To demonstrate continuous, direct compliance with the emission limitations for NO_X and CO specified for each turbine, except Turbine 4 (EU: A00704D), the Permittee shall calibrate, maintain, operate and certify the CEMS for each turbine in accordance with 40 CFR 60.

The Turbine Units combust only pipeline quality natural gas. The NO_X emissions are controlled by water injection in Turbine Units 5 through 8, prior to installation of the ULNBs. The natural gas flow, turbine load, and water injection rate are continuously monitored as the indicators of

NO_X emissions. After installation of ULNBs, water injection is no longer required on Turbine Units 5 through 8.

According to EPA AP-42, Section 3.1.3.1, NO_X emissions are strongly dependent on the high temperatures developed in the combustor. The NO_X is formed by three different mechanisms. Thermal NO_X is formed during thermal dissociation and subsequent reaction of N_2 and O_2 molecules in the combustion air. Most thermal NO_X is formed in the high temperature stoichiometric flame pockets downstream of the fuel injections where combustion air has mixed sufficiently with the fuel to produce peak temperature at fuel/air interface. Prompt NO_X, which is formed from early reactions of N_2 molecules, is usually negligible when compared to the amount of thermal NO_X formed. The third mechanism, fuel NO_X, is negligible when natural gas is burned. Consequently, during natural gas combustion essentially all NO_X formed is thermal NO_X. Maximum reduction of thermal NO_X can be achieved by control of temperature, for given stoichiometry.

The water injection system on the Clark Station Turbine Units 5 through 8 prior to installation of ULNBs correlates the water injection rate with the corresponding load to achieve the maximum reduction of NO_X. Measuring the water injection rate with the load works as a means to continuously reduce the amount of thermal NO_X formed. The hourly calculation of the NO_X emissions ensures that one hour emissions are compared to with the hourly limit on the ongoing basis. These methods provide the continuous NO_X reduction and ongoing compliance assurance with the short term emission limits. Compliance with the NO_X short-term emission limit as indicated by the data logging system is deemed indicative of compliance with the NO_X short term emission limits. The indicator range is based directly upon permitted emission limits for NO_X.

IV. REGULATORY REVIEW

A. Local Regulatory Requirements

DAQEM has determined that the following public law, statutes and associated regulations are applicable:

1. CAAA, Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the CFR; including 40 CFR 70 and others;
3. NRS, Chapter 445; Sections 401 through 601;
4. Portions of the AQR included in the SIP for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from ATC permits issued by DAQEM are federally enforceable because these permits were issued pursuant to SIP-included sections of the AQR; and
5. Portions of the AQR not included in the SIP. These locally applicable requirements are locally enforceable only.

The NRS and the CAAA are public laws that establish the general authority for the Regulations mentioned.

The DAQEM Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No. 234. AQR Section 19 - Part 70 OP details the Clark County Part 70 OP Program. These regulations may be accessed on the Internet at: http://www.accessclarkcounty.com/depts/daqem/aq/pages/regs.aspx

Local regulations contain sections that are federally enforceable and sections that are locally enforceable only. Locally enforceable only rules have not been approved by EPA for inclusion into the SIP. Requirements and conditions that appear in the Part 70 OP which are related only to non-SIP rules are notated as locally enforceable only.

Table IV-A-1: AQR Section 12 and 55 Summary Table

	PM_{10}	NO_X	CO	SO_X	VOC	HAP
Source PTE (tpy)	**683.23**	**8,153.13**	**1,712.00**	**36.34**	**182.14**	**2.05**
Emission Change (PTE to PTE due to Part 70 OP revision)	**-32.40**	**0.00**	**-325.00**	**-4,866.60**	**-2.59**	**-21.45**
Nonmajor Source	< 70 tpy	< 50 tpy	< 70 tpy	≤ 100 tpy	< 50 tpy	≤ 25 tpy
Control Technology	BACT	BACT	BACT	BACT	BACT	BACT
Notice of Proposed Action	If NEI ≥ 15 tpy	If NEI ≥ 20 tpy	If NEI ≥ 10 tpy	If NEI ≥ 40 tpy	If NEI ≥ 20 tpy	If PTE or NEI ≥ 10 tpy
Preconstruction Ambient Air Monitoring	If NEI ≥ 25 tpy	If NEI ≥ 40 tpy	No	If NEI ≥ 40 tpy	No	No
Postconstruction Ambient Air Monitoring	If NEI ≥ 25 tpy	If NEI ≥ 40 tpy	No	If NEI ≥ 40 tpy	No	No
Additional Impact Analysis	If NEI ≥ 25 tpy	If NEI ≥ 40 tpy	No	If NEI ≥ 40 tpy	No	No

Discussion: NPC-Clark Station is a major source of PM_{10}, NO_X, CO, and VOC. As part of the original New Source Review Analysis all of these emissions triggered notice of proposed action.

Table IV-A-2: Clark County DAQEM – Air Quality and State Implementation Plan with Source Compliance or Requirement

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire source
1. Definitions	applicable definitions – "Affected Facility", "Air Contaminant", "Air Pollution Control Committee", "Area Source", "Atmosphere", "Board", "Commercial Off-Road Vehicle Racing", "Dust", "Existing Facility", "Existing Gasoline Station", "Fixed Capital Cost", "Fumes", "Health District", "Hearing Board", "Integrated Sampling", "Minor Source", "Mist", "New Gasoline Station", "New Source", "NIC", "Point Source", "Shutdown", "Significant", "Single Source", "Smoke", "Source of Air Contaminant", "Special Mobile Equipment", "Standard Commercial Equipment", "Standard Conditions", "Start Up", "Stop Order", "Uncombined Water", and "Vapor Disposal System"	yes	entire source
2. Air Pollution Control Board	all subsections	yes	entire source
4. Control Officer	all subsections	yes	entire source

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
5. Interference with Control Officer	all subsections	yes	entire source
6. Injunctive Relief	all subsections	yes	entire source
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire source
9. Civil Penalties	all subsections	yes	entire source
10. Compliance Schedule	when applicable; applicable subsections	yes	entire source
11. Ambient Air Quality Standards	applicable subsections	yes	entire source
12. Preconstruction Review for New or Modified Stationary Sources	All subsections except the following: § 12.2.18 HAP Sources in Clark County. § 12.2.20 Additional Requirements for STATIONARY SOURCES with Beryllium, Mercury, Vinyl Chloride, or Asbestos EMISSIONS in Clark County	yes	The turbine was installed and permitted before Section 12 applicability. There were no reported turbine modifications with emissions increases since installation. Section 12 applies to diesel-powered standby generator. The Part 70 OP requires NPC to comply with all applicable requirements with respect to new or modified emission units.
13. Emission Standards for Hazardous Pollutants	Condition A-37 is the EPA-required standard condition concerning asbestos.	no	entire source
14. New Source Performance Standards	AQR Section 14.1.56: Subpart GG Standards of Performance for Gas Turbines	no	No emission unit is subject to a federal NSPS.
16. Operating Permits	all subsections	yes	entire source
17. Dust Control Permit and Construction Activities	all subsections	yes	entire source
18. Permit and Technical Service Fees	§ 18.1 Operating Permit Fees § 18.2 Annual Emission Unit Fees § 18.4 New Source Review Application Review Fee § 18.5 Part 70 Application Review Fee § 18.6 Annual Part 70 Emission Fee § 18.14 Billing Procedures	yes	entire source
19. Part 70 Operating Permit Federal Approval (11/25/01)	§ 19.2 Applicability § 19.3 Part 70 Permit Applications § 19.4 Part 70 Permit Content § 19.5 Permit Issuance, Renewal, Re-openings, and Revisions § 19.6 Permit Renewal by the EPA and Affected States § 19.7 Fee Determination and Certification	N/A	entire source
20. Emission Standards for Hazardous Air Pollutants for Source Categories	all subsections	yes	No emission unit is subject to a federal MACT standard.

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
21. Acid Rain Permits	all subsections	yes	An acid rain permit is not required.
22. Acid Rain Continuous Emissions Monitoring	all subsections	yes	An acid rain permit is not required.
24. Sampling and Testing - Records and Reports	§ 24.1 Requirements for installation and maintenance of sampling and testing facilities § 24.2 Requirements for emissions record keeping § 24.3 Requirements for the record format § 24.4 Requirements for the retention of records by the emission sources	yes	entire source
25.1 Upset/Breakdown, Malfunctions	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions	no	entire source
25.2 Upset/Breakdown, Malfunctions	§ 25.2 Reporting and Consultation	yes	entire source
26. Emission of Visible Air Contaminants	§ 26.1 Limit on opacity (≤ 20 percent for 3 minutes in a 60-minute period)	yes	entire source
28. Fuel Burning Equipment	Emission Limitations for PM	yes	entire source
29. Sulfur Contents of Fuel Oil	Sulfur content shall be equal to or less than 0.05 percent sulfur by weight	no	Diesel Generators
35. Diesel Engine Powered Electrical Generating Equipment	all subsections	yes	The Part 70 permit limits use of the emergency generator to testing, maintenance, and emergencies, and prohibits its use for dispatchable peak shaving.
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire source
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire source
42. Open Burning	§ 42.2	no	entire source
43. Odors In the Ambient Air	§ 43.1 Prohibitions coded as Section 29	no	entire source
55. Preconstruction Review for New or Modified Stationary Sources in the 8-hour Ozone Nonattainment Area	all subsections	no	entire source
60. Evaporation and Leakage	all subsections	yes	entire source
70. Emergency Procedures	all subsections	yes	entire source
80. Circumvention	all subsections	yes	entire source
81. Provisions of Regulations Severable	all subsections	yes	entire source
90. Fugitive Dust from Open Areas and Vacant Lots	all subsections	no	entire source
91. Fugitive Dust from Unpaved Roads, Unpaved Alleys, and Unpaved Easement Roads	all subsections	no	entire source

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
92. Fugitive Dust from Unpaved Parking Lots	all subsections	no	entire source

AQR SECTION 11 - AMBIENT AIR QUALITY STANDARDS *(in part)*

Discussion: NPC – Clark Station is a major source in Hydrographic Area 212 (Las Vegas Valley). Permitted emission units include five turbines and two generators. Since minor source baseline dates for NO_X (October 21, 1988) and SO_2 (June 29, 1979) have been triggered, PSD increment analysis is required.

DAQEM modeled the source using AERMOD to track the increment consumption. The generator and turbine were modeled for the NO_X and SO_2 increment consumption. Five years (1999 to 2003) of meteorological data from the McCarran Station and Desert Rock Station were used in the model. USGS 7.5-minute DEM terrain data was used to calculate elevations. Table IV-A-3 presents the results of the modeling.

Table IV-A-3: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source (µg/m^3)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO_2	3-hour	14.65[1]	675552	3995111
SO_2	24-hour	7.12[1]	675552	3995111
SO_2	Annual	1.98	675552	3995111
NO_x	Annual	5.44	675906	3995700

[1]Modeled 2nd High Concentration

Table IV-A-3 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

B. Federally Applicable Regulations

40 CFR 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES:

Subpart A - General Provisions

40 CFR 60.7-Notification and record keeping

Discussion: This regulation requires notification to DAQEM of modifications, opacity testing, records of malfunctions of process equipment and/or continuous monitoring device, and performance test data. These requirements are found in the Part 70 OP in Sections III-B and III-C. DAQEM requires records to be maintained for five years, a more stringent requirement than the two (2) years required by 40 CFR 60.7.

40 CFR 60.8 - Performance tests

Discussion: These requirements are found in the Part 70 OP in Section III-D. Notice of intent to test, the applicable test methods, acceptable test method operating conditions, and the requirement for three runs are outlined in this regulation. DAQEM requirements

for initial performance testing are identical to 40 CFR 60.8. DAQEM also requires periodic performance testing on emission units based upon throughput or usage. More discussion is in this document under the compliance section.

40 CFR 60.11 - Compliance with standards and maintenance requirements.

Discussion: AQR Section 26 is more stringent than the federal opacity standards, setting a maximum of 20 percent obscurity for a period of more than 6 consecutive minutes. Clark Station shall operate in a manner consistent with this section of the regulation.

40 CFR 60 Subpart GG also requires fuel monitoring and sampling to meet a standard. Subpart GG requirements are in the Part 70 OP.

Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (thirty 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

AQR Section 26 is more stringent than the federal opacity standards, setting a maximum of 20 percent obscurity for a period of more than 6 consecutive minutes. AQR Section 26.1 does include (c) above as an exception to the more stringent local rule.

At all times, including periods of startup, shutdown, and malfunction, owners and operators 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.

This is Condition III-B-3-a in the Part 70 OP.

40 CFR 60.12 - Circumvention

Discussion: This prohibition is addressed in the Part 70 OP. This is also local rule AQR Section 80.1.

40 CFR 60.13 - Monitoring requirements.

Discussion: This section requires that CEMS meet Appendix B and Appendix F standards of operation, testing and performance criteria. Section III-C of the Part 70 OP contains the CEMS conditions and citations to Appendix B and F. In addition, the QA plan approved for the CEMS follows the requirements outlined including span time, recording time, RATA waivers and malfunctions.

Subpart GG-Standards of Performance for Stationary Gas Turbines

40 CFR 60.330 - Applicability and designation of affected facility.

Discussion: The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour, based on the lower heating value of the fuel fired. Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of 40 CFR 60.332.

[44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987]

Units 5 through 8 underwent modification in 1988-1991. All four turbine units are subject to Subpart GG in its entirety.

Unit 4 is not subject to 40 CFR 60 Subpart GG, Standards of Performance for Stationary Gas Turbines, as it was permitted prior to the October 1977 applicability date.

40 CFR 60.332-Standard for nitrogen oxides. (NO_x limits using the F formula)

Discussion: NPC is permitted such that combustion turbine Units 5 through 8 shall be limited to 1,081 MMBtu/hr lower heat value natural gas fuel rate. The NO_X limits established for Turbine Units 5 through 8 as BACT comply with and are within the F formula provisions above. This requirement has been met.

40 CFR 60.333-Standard for sulfur dioxide.

Discussion: The sole use of pipeline-quality natural gas with total sulfur content less than 0.5 grains per 100 dscf satisfies this requirement.

40 CFR 60.334 - Monitoring of operations.

Discussion: The source installed, calibrated, maintains and operates a continuous monitoring system.

40 CFR 60.335 - Test methods and procedures.

Discussion: These requirements are found in the conditions for performance testing found in the Part 70 OP.

40 CFR 60.46a – Compliance Provisions

Discussion: The Part 70 OP outlines start-up and shut-down events. The tons per year limits for the turbines include start-up and shut-down emissions. Clark Station has completed all compliance demonstrations and has demonstrated compliance with all applicable emission standards for NO_X. The source employs water injection to control NO_X emissions. The measurements to be taken are outlined in the Part 70 OP.

40 CFR 60.47a – Emission Monitoring

Discussion: The source has installed water injection system to control NO_x emissions. Monitoring requirements are outlined in Section III-C of the Part 70 OP. The reporting requirements are outlined in Section III-F of the Part 70 OP.

40 CFR 60.48a – Compliance Determination Procedures and Methods

Discussion: The compliance demonstration for this source is discussed in Section III of the Part 70 OP.

40 CFR 60.49a – Reporting Requirements

Discussion: These are discussed in Part 70 OP.

Subpart KKKK – Standards of Performance for Stationary Combustion Turbines

Subpart KKKK does not apply to Turbine Units 4 through 8 at this source because the turbines did not commence construction, modification, or reconstruction after February 18, 2005.

Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Subpart IIII does not apply to the two emergency generators or fire pump at this source because none commenced construction, modification, or reconstruction after July 11, 2005.

40 CFR 63 – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES:

Subpart A - General Provisions

40 CFR 63.4 – Prohibited activities and circumvention

Discussion: This prohibition is addressed in the Part 70 OP. This is also local rule AQR Section 80.1.

Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

40 CFR 63.11111 – Applicability and designation of affected facility

Discussion: The provisions of this subpart are applicable to any GDO that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDO and also includes each storage tank. The GDO at this source (EU: A43) has a monthly throughput of less than 10,000 gallons of gasoline, and therefore, must comply with the requirements in 40 CFR 63.11116.

40 CFR 63.11113 – Compliance Dates

Discussion: Subpart CCCCCC became effective on January 10, 2008. All existing sources are required to comply with the standard by January 10, 2011.

40 CFR 63.11116 – Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline

Discussion: The source is required to handle gasoline in a manner that would curb extended periods of vapor releases to the atmosphere. The measures to be taken are described in detail in Condition III-B-3-I of the Part 70 OP. The source is not required to submit notifications or reports, but must maintain records of gasoline throughput.

40 CFR 63.11130 – Applicability of General Provisions

Discussion: In addition to the section discussed above, the parts of the general provision in 40 CFR 63.1 through 63.15 presented in Table 3 of 40 CFR 63 Subpart CCCCCC, are also applicable to the source.

40 CFR 64 – COMPLIANCE ASSURANCE MONITORING

40 CFR 64.2 – Applicability

Discussion: The CAM Rule is not applicable to Turbine Unit 4 (EU: A00704D) based on the applicability statement outlined in 40 CFR 64.2(a)(2), i.e., a control device is not used on this unit to achieve compliance with any emission limitation or standard for a regulated air pollutant. The NO_x CEMS, which are operated and required by the Part 70 OP on Turbine Units 5, 6, 7, and 8, meet the CAM 40 CFR 64.2(b)(1)(vi) exemption requirements. For Turbine Units 5, 6, 7, and 8, the CAM Rule is not applicable for CO, PM_{10}, SO_x, VOC, or HAP because no control device is used to achieve compliance for any of these pollutants.

40 CFR 72-ACID RAIN PERMITS REGULATION

Subpart A – Acid Rain Program General Provisions

40 CFR 72.6 – Applicability

Discussion: The five Turbine Units were operating as simple cycle natural gas fired turbines prior to November 15, 1990, and have not added auxiliary firing. Therefore, the provisions of this regulation do not apply according to 72.6(b)(1).

40 CFR 73 – ACID RAIN SULFUR DIOXIDE ALLOWANCE SYSTEM

Discussion: The simple cycle natural gas fired turbine began operation on or about October 31, 1974. Clark Station is not an affected source pursuant to 40 CFR 72.6 and therefore, this section is not applicable.

40 CFR 75 – CONTINUOUS EMISSION MONITORING

Discussion: Clark Station is not subject to the Acid Rain emission limitations of 40 CFR 40 CFR 72; therefore, the source is not subject to the monitoring requirements of this regulation.

V. COMPLIANCE

A. Compliance Certification

19.3.3.9 Requirements for compliance certification:

(a) Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the DAQEM shall be as follows:

Table V-A-1: Reporting Schedule

Required Report	Applicable Period	Due Date[1]
Quarterly Report for 1st Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2nd Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3rd Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4th 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

[1] If the due date falls on a Saturday, Sunday or legal holiday, then the submittal is due on the next regularly scheduled business day.

(b) A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.

(c) A schedule for submission of compliance certifications during the permit term.

(d) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

B. Compliance Summary

Table V-B-1: Compliance Summary Table - AQR

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 0	Definitions.	Applicable – Clark Station will comply with all applicable definitions as they apply.	Clark Station will meet all applicable test methods should new definitions apply.	Clark Station complies with applicable requirements.
AQR Section 4	Control Officer.	Applicable – The Control Officer or his representative may enter into Clark Station property, with or without prior notice, at any reasonable time for purpose of establishing compliance.	NPC will allow Control Officer to enter Station property as required.	Clark Station complies with applicable requirements.
AQR Section 11	Ambient Air Quality Standards.	Applicable – Clark Station is a source of air pollutants.	Clark Station demonstrated compliance in the ATC permit application with air dispersion modeling.	Clark Station complies with applicable requirements.
AQR Section 12.1	General application requirements for construction of new and modified sources of air pollution.	Applicable – Clark Station applied for and the ATC certificate was issued before commencing construction.	Clark Station received the ATC permit to construct.	Clark Station complies with applicable requirements.
AQR Section 12.2.2	Requirements for specific air pollutants: PM_{10} emission source located in the Serious Non-Attainment Area.	Applicable – Clark Station has PM_{10} PTE < 70 TPY.	All new or modified emission units at the Clark Station will meet LAER requirements.	Clark Station complies with applicable requirements.
AQR Section 12.2.7	Requirements for specific air pollutants: CO sources located in the Serious Non-Attainment Area.	Applicable – Clark Station has CO PTE > 70 TPY.	All new or modified emission units at the Clark Station will meet LAER requirements.	Clark Station complies with applicable requirements.
AQR Section 12.2.12	Requirements for specific air pollutants: VOC sources located in the VOC Management Area.	Applicable – Clark Station is located in Hydrographic Area 212 and has VOC PTE > 50 TPY.	All new or modified emission units at the Clark Station will meet LAER requirements.	Clark Station complies with applicable requirements.
AQR Section 12.2.14	Requirements for specific air pollutants: NO_X sources located in the NO_X Management Area.	Applicable – Clark Station has NO_X PTE > 50 TPY.	All new or modified emission units at the Clark Station will meet BACT requirements.	Clark Station complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 12.2.16	Requirements for specific air pollutants: SO_2 sources located in the PSD area.	Applicable – Clark Station has SO_2 PTE > 40 TPY.	All new or modified emission units at the Clark Station will meet BACT requirements.	Clark Station complies with applicable requirements. Sulfur content of natural gas will not exceed 0.75 grains per 100 dscf (based on 12-month rolling average).
AQR Section 12.2.19	Requirements for specific air pollutants: TCS sources in Clark County	Not Applicable – Clark Station does not have any NH_3 emissions.	Not Applicable.	Not Applicable.
AQR Section 12.5	Air Quality Models	Applicable – Dispersion modeling performed will be performed as required for any future major modifications.	As applicable, future dispersion modeling will be performed in ATC permit modifications will be in accordance with provisions of 40 CFR 51, Appendix W.	Clark Station complies with applicable requirements.
AQR Section 12.7	Continuous Emission Monitoring Systems	Applicable – Clark Station has NO_x PTE > 40 TPY and CO PTE > 100 TPY. NO_x and CO CEMS installed on all applicable stacks (Turbine Units 5, 6, 7, and 8) and meets provisions of 40 CFR 60.	Clark Station submitted all required protocols/test plans per the issued ATC permit prior to CEMS certification. CEMS certification was approved by DAQEM.	Clark Station complies with applicable requirements.
AQR Section 14.1.1 Subpart A	NSPS – General Provisions	Applicable – Clark Station (Turbine Units 5, 6, 7, and 8) is an affected source under the regulations. AQR Section 14 is locally enforceable; however, the NSPS standards they reference are federally enforceable. These provisions do not apply to Turbine Unit 4, however, as it pre-dates the regulation.	Applicable monitoring, recordkeeping and reporting requirements on Turbine Units 5, 6, 7, and 8. Not applicable to Turbine Unit 4.	Clark Station complies with applicable requirements.
AQR Section 14.1.13 Subpart Da	NSPS – Standards of Performance for Electric Utility Steam Generating Units	Not Applicable – Clark station does not have any duct burners or boilers under the jurisdiction of DAQEM.	Not Applicable.	Not Applicable.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 14.1.56 Subpart GG	NSPS – Standards of Performance for Stationary Gas Turbines	Applicable –Clark Station Turbine Units 5, 6, 7, and 8 are natural gas fired units with heat input greater than 10 MMBtu/hr. This regulation does not apply to Turbine Unit 4, as it pre-dates the regulation.	Turbine Units 5, 6, 7, and 8 meet the applicable NO_x emission standard. NO_x emissions from each turbine shall not exceed 91.6 ppm (dry, corrected to 15 percent oxygen). NO_x emissions determined by EPA Method 7E. Not applicable to Turbine Unit 4.	Clark Station complies with applicable requirements.
AQR Section 16	DAQEM Operating Permits	Applicable – Any emission unit of stationary source must apply for and obtain a DAQEM operating permit Station applied for the operating permit from DAQEM.	Clark Station applied for and received operating permit from DAQEM prior to commercial operation.	Clark Station complies with applicable requirements.
AQR Section 18	Permit and Technical Service Fees	Applicable – Clark Station will be required to pay all required/applicable permit and technical service fees.	Clark Station is required to pay all required/applicable permit and technical service fees.	Clark Station complies with applicable requirements.
AQR Section 19	40 CFR 70 Operating Permits	Applicable – Clark Station is a major stationary source and under 40 CFR 70 the initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission unit. Section 19 is both federally and locally enforceable	Clark Station reviewed the initial Part 70 OP dated January 15, 2003. This renewal application was submitted before June 15, 2007. Applications for new units will be submitted within 12 months of startup.	Clark Station complies with applicable requirements.
AQR Section 21	Acid Rain Permits	Not Applicable – per 40 CFR 72.6(b)(1). Turbine Units 4, 5, 6, 7, and 8 are defined as simple combustion turbines that commenced commercial operation prior to 11/15/1990.	Not Applicable.	Not Applicable.
AQR Section 22	Acid Rain Continuous Emission Monitoring	Not Applicable – per 40 CFR 72.6(b)(1). Turbine Units 4, 5, 6, 7, and 8 are defined as simple combustion turbines that commenced commercial operation prior to 11/15/1990.	Not Applicable.	Not Applicable.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 25	Upset/Breakdown, Malfunctions	Applicable – Any upset, breakdown, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to Control Officer. Section 25.1 is locally and federally enforceable.	Any upset, breakdown, emergency condition, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within one (1) hour of onset of such event.	Clark Station complies with applicable requirements.
AQR Section 26	Emissions of Visible Air Contaminants	Applicable – Opacity for the Clark Station combustion turbine must not exceed 20 percent for more than 6 consecutive minutes.	Compliance determined by EPA Method 9	Clark Station complies with applicable requirements.
AQR Section 27	Particulate Matter from Process Weight Rate	Not Applicable.	Not Applicable.	Not Applicable.
AQR Section 28	Fuel Burning Equipment	Applicable – The PM emission rate for the combustion the Turbines is well below those established based on Section 28 requirements.	Maximum allowable PM emission rate determined from equation in Section 28.	Clark Station complies with applicable requirements.
AQR Section 40	Prohibition of Nuisance Conditions	Applicable – No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance. Section 40 is locally enforceable only.	Clark Station air contaminant emissions controlled by pollution control devices or good combustion in order not to cause a nuisance.	Clark Station complies with applicable requirements.
AQR Section 41	Fugitive Dust	Applicable – Clark Station shall take necessary actions to abate fugitive dust from becoming airborne.	Station utilizes appropriate best practices to not allow airborne fugitive dust.	Clark Station complies with applicable requirements.
AQR Section 42	Open Burning	Applicable – In event Clark Station burns combustible material in any open areas, such burning activity will have been approved by Control Officer in advance. Section 42 is a locally enforceable rule only.	Clark Station will contact the DAQEM and obtain approval in advance for applicable burning activities as identified in the rule.	Clark Station complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 43	Odors in the Ambient Air	Applicable – An odor occurrence is a violation if the Control Officer is able to detect the odor twice within a period of an hour, if the odor causes a nuisance, and if the detection of odors is separated by at least fifteen minutes. Section 43 is a locally enforceable rule only.	Clark Station will not operate its source in a manner which will cause odors. Clark Station is a natural gas fired source and is not expected to cause odors.	Clark Station complies with applicable requirements.
AQR Section 49	Emission Standards for Boilers and Steam Generators Burning Fossil Fuels	Not Applicable – Clark Station does not have any boilers or steam generators under the jurisdiction of DAQEM.	Not Applicable.	Not Applicable.
AQR Section 55	Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area	Applicable – Clark Station is located in Las Vegas Valley airshed (hydrographic area 212) and will need to meet the applicable emission control requirements at times of future modifications.	In the event Station undertakes a major modification, the source will have to apply BACT and LAER control requirements.	Clark Station complies with applicable requirements.
AQR Section 70.4	Emergency Procedures	Applicable – Clark Station submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 16 Operating Permit Application.	Clark Station submitted an emergency standby plan and received the Section 16 Operating Permit.	Clark Station complies with applicable requirements.

Table V-B-2: Compliance Summary Table – Federal Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR 52.21	Prevention of Significant Deterioration (PSD)	Applicable – Clark Station PTE > 100 TPY and is listed as one of the 28 source categories.	BACT analysis, air quality analysis using modeling, and visibility and additional impact analysis performed for original ATC permits.	Clark Station complies with applicable sections as required by PSD regulations.
40 CFR 52.1470	SIP Rules	Applicable – Clark Station is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	Clark Station is in compliance with applicable state SIP requirements including monitoring and record keeping of emissions data.
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions	Applicable – Clark Station is an affected source under the regulations.	Applicable monitoring, recordkeeping and reporting requirements.	Clark Station complies with applicable requirements.
40 CFR 60, Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines	Applicable – Turbine Units 5 through 8 (EUs: A00701A, A00702B, A00705, and A00708) Not Applicable – Turbine Unit 4 (EU: A00704D) was constructed in 1974 and predates requirements of this subpart.	Not Applicable.	Clark Station complies with applicable requirements.
40 CFR 60, Subpart KKKK	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines	Not Applicable – Clark Station Turbine Units pre-date the applicability date of February 18, 2005, and have not been modified.	Not Applicable.	Not Applicable.
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)	Applicable – Emissions from stacks are subject to opacity standards.	Opacity determined by EPA Method 9.	Clark Station complies with applicable requirements.
40 CFR 63, Subpart A	National Emission Standards for Hazardous Air Pollutants – General Provisions	Applicable – The GDO (EU: A43) is an affected source under the regulations. Compliance date for the subpart is January 10, 2011.	Table 3 of 40 CFR 63 Subpart CCCCCC specifies which parts of the General Provisions apply to the source.	Clark Station is required to comply with the applicable requirements by January 10, 2011.
40 CFR 63, Subpart CCCCCC	National Emission Standards for Hazardous Air Pollutants – Gasoline Dispensing Facilities	Applicable – The GDO (EU: A43) is an affected source under the regulations. Compliance date for the subpart is January 10, 2011.	Applicable work practice requirements.	Clark Station is required to comply with the applicable requirements by January 10, 2011.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR 64	Compliance Assurance Monitoring	Not Applicable – Turbine Unit 4 (EU: A00704D) has no control device to achieve compliance. Turbine Units 5 through 8 (EUs: A00701A, A00702B, A00705, and A00708) meet the 40 CFR 64.2(b)(1)(vi) exemption requirements.	Not Applicable.	Not Applicable.
40 CFR 68	Chemical Accident Prevention Provisions	Not Applicable – Clark Station stores or handles 19% aqueous NH_3 which is less than the applicable threshold.	Construction approval and a RMP were not required for the Nevada Department of Environmental Protection for storage and use of NH_3. Station adheres to Station management programs.	Clark Station complies with applicable requirements.
40 CFR 70	Federally Mandated Operating Permits	Applicable – Clark Station is a major stationary source and under 40 CFR 70 the initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission unit.	Clark Station reviewed the initial Part 70 OP dated January 15, 2003. This renewal application was submitted before June 15, 2007. Applications for new units will be submitted within 12 months of startup.	Clark Station complies with applicable requirements.
40 CFR 72	Acid Rain Permits Regulation	Not Applicable – Clark Station is exempt from acid rain regulations based on 40 CFR 72.6 (b)(4).	Not Applicable.	Not Applicable.
40 CFR 73	Acid Rain Sulfur Dioxide Allowance System	Not Applicable – Clark Station is exempt from acid rain regulations based on 40 CFR 73.2 (a).	Not Applicable.	Not Applicable.
40 CFR 75	Acid Rain CEMS	Not Applicable – Clark Station is exempt from acid rain regulations based on 40 CFR 75.2 (b)(2).	Not Applicable.	Not Applicable.

C. Summary of Monitoring for Compliance

Table V-C-1: Compliance Monitoring

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A00704D	Combustion Turbine	CO, NO_x, SO_2, PM_{10}, VOC, HAPs	AQR Sections 12 and 19	Annual emission limits	Record keeping hours of operation, fuel use
A00701A A00702B A00705 A00708	Combustion turbines Units 5 through 8	CO, NO_x SO_2, PM_{10}, VOC, HAPs	AQR Sections 12 and 19, 40 CFR 60 Subpart GG	Annual and short-term emission limits. Stack testing once every five years for VOC and PM_{10} *except for* Unit 7 which *must* test *for* PM_{10} annually or apply for waiver. Fuel consumption recordkeeping and reporting	CEMS for NO, and CO. Slack testing by EPA Methods as approved by DAQEM and EPA in current ATC/OP. Compliance for HAPs and non-CEMS monitored emissions shall be based on fuel consumption and emission factors. Recording is required for compliance demonstration. SO_2 will be monitored through sulfur content in the fuels, recordkeeping of hours of operation, and recording of water injection rates
A00701A A00702B A00705 A00708	Combustion turbines Units 5 through 8	Fuel natural gas	Subpart GG	Natural gas sulfur content limited by 0.50 grains per 100 standard cubic feet.	Annual sulfur content results to be submitted with annual reports. Recordkeeping of sulfur content quarterly. Excess emissions report if sulfur exceeds 0.05 percent by weight.
A00701A A00702B A00705 A00708	Combustion turbines Units 5 through 8		Subpart GG AQR Section 26	Opacity 20%	Regular, periodic visual survey of opacity shall be made while burning gas. Immediate logging of any opacity noted, and correction of opacity exceedance. Reporting of upset/breakdown to EPA and DAQEM.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A00708	Lime Silo	PM_{10}	AQR Sections 12 and 19	Baghouse 99.9% efficiency Hours of operation and throughput limit	Performance testing if operated more than 500 hours and then every 8,760 hours thereafter. Recordkeeping of hours of operation, and throughput.
A00710, A00711	Soda ash silos	PM_{10}	AQR Sections 12 and 19 AQR Section 26	Baghouse 99.9% efficiency Hours of operation and throughput limit Opacity	Performance testing if operated more than 500 hours and then every 8,760 hours thereafter. Recordkeeping of hours of operation and throughput.
A00712, A00713	Cooling tower	PM_{10}	AQR Sections 12 and 19	Emission limits based upon hours of operation and TDS	Control technology of drift eliminators. Recordkeeping of hours of operation. Monitoring of total dissolved solids and recordkeeping
A21, A22, and A23,	Emergency generators and Fire Pump	NO_x, CO, VOC, PM_{10}, HAPs, SO_2 SO_2	AQR Sections 12 and 19, AQR Section 29	Emission limitations based upon fuel throughput and hours of operation for testing and maintenance. Sulfur limited to 0.05 percent or less by weight.	Recordkeeping of fuel use and hours of operation. Calculated emissions based upon AP-42 and fuel. Fuel certification by supplier.

VI. EMISSION REDUCTION CREDITS (OFFSETS)

The source is subject to offset requirements in accordance with AQR Section 59. Offset requirements and associated mitigation are pollutant-specific.

VII. ADMINISTRATIVE REQUIREMENTS

AQR Section 19 requires that DAQEM identify the original authority for each term or condition in the Part 70 OP. Such reference of origin or citation is denoted by [italic text in brackets] after each Part 70 OP condition.

DAQEM proposes to issue the Part 70 OP conditions on the following basis:

Legal:

On December 5, 2001 in Federal Register Volume 66, Number 234 FR30097 the EPA fully approved the Title V Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 CAAA and implementing 40 CFR 70.

Factual:

NPC-Clark Station has supplied all the necessary information for DAQEM to draft Part 70 OP conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

DAQEM has determined that NPC-Clark Station will continue to determine compliance through the use of CEMS, performance testing, quarterly reporting, daily recordkeeping, coupled with annual certifications of compliance. DAQEM proceeds with the decision that a Part 70 OP should be issued as drafted to NPC-Clark Station for a period not to exceed five years.