

CLARK COUNTY
DEPARTMENT OF AIR QUALITY AND
ENVIRONMENTAL MANAGEMENT
500 South Grand Central Parkway, Box 555210, Las Vegas, Nevada 89155
Part 70 Operating Permit
Source: 360
Issued in accordance with the
Clark County Air Quality Regulations (AQR)

ISSUED TO: Nevada Cogeneration Associates #1

SOURCE LOCATION:

11401 US 91 and US 95
Apex, Nevada
T18S, R63E, Sections 34
Hydrographic Basin Number: 216

COMPANY ADDRESS:

420 North Nellis Blvd., # A3-148
Las Vegas, NV 89110

NATURE OF BUSINESS:

SIC Code 4931: Electric Cogeneration
NAICS Code: 221112- Fossil Fuel Electric Power Generation

RESPONSIBLE OFFICIAL:

Name: Genevieve E. Marengo
Title: Executive Director
Phone: (702) 652-1224
Fax Number: (702) 644-1474

Permit Issuance Date: December 3, 2010 Expiration Date: December 2, 2015

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



Tina Gingras
Assistant Director, Clark County DAQEM

EXECUTIVE SUMMARY

Nevada Cogeneration Associates #1 (NCA #1) in the Garnet Valley Facility is a major source for NO_x, CO, and NH₃ and is a minor source for PM₁₀, SO_x, VOC and HAP. The source is under SIC Code 4931: Electric Cogeneration (NAICS Code 221112: Fossil Fuel Electric Power Generation) and is located in the Apex Industrial Park (next to Georgia-Pacific gypsum wallboard production facility) Apex, Nevada (T18S, R63E, Section 34) in the Garnet Valley hydrographic area 216. The Garnet Valley Area is classified as PSD for all criteria air pollutants.

The NCA #1 is an 85 MW topping cycle cogeneration plant. The source operates three natural gas-fired GE Turbine Generator Packages that exhaust into heat recovery steam generators (HRSG) equipped each with a 77 MMBtu/hr supplemental duct burner. Additionally, nominal 29.74 MW steam turbine generator is operated to produce electrical power. Other operating emission units include a rental back-up generator, a diesel emergency fire pump, a diesel-fire water pump, and cooling tower. This Part 70 Operating Permit is issued based on the renewal application submitted on January 10, 2007 and the request for and administrative change to the Part 70 Operating Permit submitted on May 7, 2008.

The following table summarizes the source PTE for each regulated air pollutant for all emission units addressed by this Part 70 Operating Permit:

Source-wide PTE (tons per year)¹

Pollutants	PM ₁₀	NO _x	CO	SO _x	VOC	HAP	NH ₃
PTE Totals	67.24	168.26	145.42	9.30	26.76	6.41	83.48
Major Source Thresholds	100	100	100	100	100	25 ²	N/A

¹ Not a source-wide emission limit; values are used for determining the major source status.

² Ten tons for any individual HAP or 25 tons for combination of all HAPs.

Pursuant to AQR 12.5.2/AQR 19.4.2, all terms and conditions in Sections I through VII and Attachment 1 in this permit are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I-1: Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
CAAA	Clean Air Act, as amended
CEMS	Continuous Emissions Monitoring System
CFC	Chlorofluorocarbon
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CTG	Combustion Turbine-Generator
DAQEM	Clark County Department of Air Quality & Environmental Management
DLN	Dry Low-NO _x
EPA	United States Environmental Protection Agency
EU	Emission Unit
HAP	Hazardous Air Pollutant
HCFC	Hydrochlorofluorocarbon
HHV	Higher Heating Value
HP	Horse Power
kW	kilowatt
LHV	Lower Heating Value
MMBtu	Millions of British Thermal Units
M/N	Model Number
MW	Megawatt
NAICS	North American Industry Classification System
NO _x	Nitrogen Oxides
NRS	Nevada Revised Statutes
OP	Operating Permit
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
ppmvd	Parts per Million, Volumetric Dry
PTE	Potential to Emit
QA/AC	Quality Assurance/Quality Control
RATA	Relative Accuracy Test Audits
RMP	Risk Management Plan
SCC	Source Classification Codes
scf	Standard Cubic Feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
S/N	Serial Number
SO _x	Sulfur Oxides
TCS	Toxic Chemical Substance
ULN	Ultra Low-NO _x
VOC	Volatile Organic Compound

II. GENERAL CONDITIONS

A. General Requirements

1. The Permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act (Act) and is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application. [AQR 12.5.2.6(g)(1)/AQR 19.4.1.6.a]
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. [AQR 12.5.2.6(f)/AQR 19.4.1.5]
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. Failure to pay Part 70 permit fees may result in citations or suspensions or revocation of the Part 70 Permit. [AQR 12.5.2.6(h)/AQR 19.4.1.7]
4. The permit does not convey any property rights of any sort, or any exclusive privilege. [AQR 12.5.2.6(g)(4)/AQR 19.4.1.6.d]
5. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to *interfere with the Control Officer, or any individual* to whom authority has been duly delegated for the performance of any duty by the AQR. [AQR 5.1]
6. The Permittee owning, operating, or in control of any equipment or property who shall cause, permit, or participate in any violation of the AQR shall be individually and collectively liable to any penalty or punishment imposed by and under the AQR. [AQR 8.1]
7. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [AQR 12.5.2.2/AQR 19.3.2]
8. The Permittee may request confidential treatment of any records in accordance with AQR. Emission data, standards or limitations [all terms as defined in 40 CFR 2.301(a)] or other information as specified in 40 CFR 2.301 shall not be considered *eligible for confidential treatment*. The Administrator and the Control Officer shall each retain the authority to determine whether information is eligible for confidential treatment on a case-by-case basis. [AQR 12.5.2.6(g)(5)/AQR 19.3.1.3 and 40 CFR 2.301]

B. Modification, Revision, Renewal Requirements

1. The Permittee shall not make a modification, as defined in AQR Section 0, to the existing source prior to receiving an ATC from the Control Officer. [AQR 12.4]
2. The permit may be modified, *revoked, reopened and reissued, or terminated* for cause. The filing of a request by the Permittee for the permit modification, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [AQR 12.5.2.6(g)(3)/AQR 19.4.1.6.c]
3. Any request for a permit revision must comply with the requirements of AQR Section 12.5. [AQR 12.5.2]
4. The Permittee shall not build, erect, install or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable requirement. [AQR 80.1 and 40 CFR 60.12]

5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. *[AQR 12.5.2.6(i)/AQR 19.4.1.11]*
6. For purposes of permit renewal, the Permittee shall submit a timely and complete application. A timely application is one submitted between six (6) months and 18 months prior to the date of permit expiration. *[AQR 12.5.2.1/AQR 19.3.1.1.c]*
7. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with AQR in which case the permit shall not expire and all terms and conditions of the permit shall remain in effect until the renewal permit has been issued or denied. *[AQR 12.5.2.11/AQR 19.5.3.2]*

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall comply with all notification, record keeping and reporting requirements of 40 CFR 60.7, 40 CFR 60 Subpart GG and 40 CFR 63 Subpart ZZZZ, 40 CFR 72.9 (f) *[AQR 12.5.2.6/AQR 19.4.1.3]*
2. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Control Officer along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)/AQR 19.4.1.6]*
3. The Permittee shall allow the Control Officer or an authorized representative, upon presentation of credentials:
 - a. entry upon the Permittee's premises where the source is located, or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
 - b. access to inspect and copy, at reasonable times, any records that must be kept under conditions of the permit;
 - c. access to inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. access to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. *[AQR 4.3, 12.5.2.8(b)/AQR 19.4.3.2]*
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 source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit. *[AQR 12.5.2.6(g)(2)/AQR 19.4.1.6.b]*
2. Any person who violates any provision of this Operating Permit, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by DAQEM is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board/Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1]*
3. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review as provided in Chapter 233B of NRS. *[AQR 9.12]*
4. The Permittee of any stationary source or emission unit that fails to demonstrate compliance with the emissions standards or limitations shall submit a compliance plan to the Control Officer pursuant to AQR Section 10. *[AQR 10.1]*
5. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1.7]*
6. Requirements for compliance certification with terms and conditions contained in the Operating Permit, including emission limitations, standards, or work practices, are as follows:
 - a. the Permittee shall submit compliance certifications annually in writing to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each year will be due 30 days after the Operating Permit issuance anniversary date;
 - b. compliance shall be determined in accordance with the requirements detailed in AQR, record of periodic monitoring, or any credible evidence; and
 - c. the compliance certification shall include:
 - i. identification of each term or condition of the permit that is the basis of the certification;
 - ii. the Permittee's compliance status and whether compliance was continuous or intermittent;
 - iii. methods used in determining the compliance status of the source currently and over the reporting period consistent with AQR; and
 - iv. other specific information required by the Control Officer to determine the compliance status of the source. *[AQR 12.5.2.8(e)(3)/AQR 19.4.3.5]*
7. The Permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1]*
 - a. The annual emissions inventory shall be submitted by DAQEM no later than March 31 after the reporting year.
 - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.
8. The Permittee shall report to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) any upset, breakdown, malfunction, emergency or deviation which

cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below [AQR 25.6.1]:

- a. within twenty-four (24) hours of the onset of the event, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email.
 - 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.
9. The Permittee shall report to the Control Officer deviations that do not result in excess emission, with the semi-annual reports. Such reports shall include the probable cause of deviations and any corrective actions or preventative measures taken. [AQR 12.5.2.6(d)(4)(B)/AQR 19.4.1.3]
 10. The Permittee shall include a certification of truth, accuracy, and completeness by a responsible official when submitting any application form, report, or compliance certification pursuant to this Operating Permit. This certification and any other certification required shall state, "Based on the information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." This statement shall be followed by the signature and printed name of the responsible official certifying compliance and the date of signature. [AQR 12.5.2.6(l)/AQR 19.3.4]

E. Performance Testing Requirements

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the DAQEM regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. [AQR 4.5]
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. [AQR 4.6]
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) not less than 45 nor more than 90 days prior to the anticipated date of the performance test. [AQR 14.10 and 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. [AQR 14.1 and 40 CFR 60.8(b)]
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. [AQR 14.12 and AQR 12.5.2.8]
6. The Control Officer may require additional or more frequent performance testing. [AQR 4.5]

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

A. Emission Units

- The stationary source covered by this Part 70 OP is defined to consist of the emission units and associated appurtenances summarized in Table III-A-1. [AQR 12.5.2.3/AQR 19.4.1]

Table III-A-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #
A001	Turbine Generator Package #1	22.2 MW nameplate	General Electric	LM-2500 PE-MEE-06	260157-1
A001a	Supplemental Duct Burner	77 MMBtu/hr	Coen	N/A	GV ALPHA
A002	Turbine Generator Package #2	22.2 MW nameplate	General Electric	LM-2500 PE-MEE-06	260157-2
A002a	Supplemental Duct Burner	77 MMBtu/hr	Coen	N/A	GV BRAVO
A003	Turbine Generator Package #3	22.2 MW nameplate	General Electric	LM-2500 PE-MEE-06	260157-3
A003a	Supplemental Duct Burner	77 MMBtu/hr	Coen	N/A	GV CHARLIE
A004	Diesel Emergency Fire Pump	300 hp	Detroit	DDFPL6AT	46910
A005a	Cooling Tower, Cell 1	26,600 gpm total	Ecodyne	2CFF-60595L2610	DO0-15665-A
A005b	Cooling Tower, Cell 2	26,600 gpm total	Ecodyne	2CFF-60595L2610	DO0-15665-A
A006	Diesel-Fired Water Pump	81.8 hp	Perkins	3PKXL04.2AR1	AR36677U586299 K
A007	Diesel Fuel Storage Tank	250,000-gallons	SchuffSteel	N/A	N/A
A008	Diesel Emergency Generator	1,676 hp	Aggreko	N/A	N/A
A009	Ammonia Storage and Injection	1,000-gallons storage tank		N/A	N/A
A010	Gasoline Dispensing	1000-gallons aboveground storage tank	Air Boy	N/A	N/A

- The following insignificant units or activities are present at this source.

Table III-A-2: Insignificant Units or Activities

Emission Unit Description
Generator Lube Oil Tank A, 215 gallons
Generator Lube Oil Tank B, 215 gallon
Generator Lube Oil Tank C, 215 gallon
Steam Turbine Lube Oil Tank,
Steam Turbine Lube Oil Conditioner Tank, 270 gallon
Oil/Water Sump
Gas Turbine Lube Oil Tank 1, 150 gallon
Gas Turbine Lube Oil Tank 2, 150 gallon
Gas Turbine Lube Oil Tank 3, 150 gallon

Emission Unit Description
Diesel aboveground storage tank, 350 gallons (Fire Water Pump)
Steam and Water Treatment
Evaporation Pond
Maintenance Operations

B. Emission Limitations and Standards

1. Emission Limits

- a. The Permittee shall allow neither the actual nor allowable emissions from each emission unit to exceed the calculated PTE listed in Tables III-B-1 through III-B-5. Pound-per-hour limits in Table III-B-2 and ppm limits in Table III-B-5 are normal operation (exclude startup and shutdown) limits only. Ton-per-year emission limits for each emission unit include startup and shutdown emissions and shall be based on consecutive 12-month total. [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]

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

EU	PM ₁₀	NO _x (SCR)	NO _x (no SCR)	CO	SO _x	VOC	HAP	NH ₃
A001, A001a	17.00	40.77	14.13	46.71	3.03	8.75	2.08	27.82
A002, A002a	17.00	40.77	14.13	46.71	3.03	8.75	2.08	27.82
A003, A003a	17.00	40.77	14.13	46.71	3.03	8.75	2.08	27.82
A004	0.10	0.00	1.00	0.35	0.09	0.02	0.01	0.00
A005a, A005b	15.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A006	0.06	0.00	0.43	0.20	0.06	0.07	0.11	0.00
A007	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00
A008	0.12	0.00	2.13	4.74	0.06	0.30	0.03	0.00
A009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
A010	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00

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

EU	PM ₁₀	NO _x (SCR)	NO _x (no SCR)	CO	SO _x	VOC	HAP	NH ₃
A001, A001a	3.88	10.30	21.50	10.70	0.69	2.00	0.46	6.35
A002, A002a	3.88	10.30	21.50	10.70	0.69	2.00	0.46	6.35
A003, A003a	3.88	10.30	21.50	10.70	0.69	2.00	0.46	6.35

Table III-B-3: Emergency Operating Scenario PTE for Turbines on Diesel Fuel

EU	PM ₁₀		NO _x		CO		SO ₂		VOC		HAP	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
A001, A001a	5.40	0.58	37.93	4.10	10.52	1.14	12.11	1.31	3.40	0.37	0.74	0.08
A002, A002a	5.40	0.58	37.93	4.10	10.52	1.14	12.11	1.31	3.40	0.37	0.74	0.08
A003, A003a	5.40	0.58	37.93	4.10	10.52	1.14	12.11	1.31	3.40	0.37	0.74	0.08

Table III-B-4: Emission Unit PTE for Ammonia (NH₃)

EU	lb/hr	tpy	ppm
A001, A001a	6.35	27.82	20
A002, A002a	6.35	27.82	20
A003, A003a	6.35	27.82	20

Table III-B-5: Emission Limitations Excluding Startup and Shutdown in ppmvd @ 15 percent

	PM₁₀	NO_x	CO	VOC	NH₃
With SCR ¹	20.4 lb/hr	12	23	0.0077 lb/MMBtu	20
Without SCR ¹	14.1 lb/hr	25	23	0.0028 lb/MMBtu	0

¹Limits based on a 3-hour averaging period.

- b. 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]
- c. The Permittee shall not allow NO_x emissions from the stack of each turbine to exceed 25 ppmvd @ 15 percent oxygen as measured on a 3-hour rolling average during periods when the SCR is not operational. [1999 EPA Consent Decree and NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]
- d. The Permittee shall not allow NO_x emissions from the stack of each turbine to exceed 12 ppmvd @ 15 percent oxygen as measured on a 3-hour rolling average during all times when the SCRs are in use. [1999 EPA Consent Decree and NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]
- e. The Permittee shall limit HAP emissions to 1.5 tons of any single HAP and an aggregate of 6.41 tons of all HAPs per rolling 12-month period. [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]

2. Production Limits

- a. The Permittee shall limit operation of each turbine unit to the natural gas limits listed in Table III-B-6: [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]

Table III-B-6: Fuel Limitations for Turbine Units

Equipment	Fuel Type	Maximum MMBtu/hr
Turbine Generator Package #1 (A001)	Natural Gas	285 (Based on LHV at 67°F)
Turbine Generator Package #2 (A002)	Natural Gas	285 (Based on LHV at 67°F)
Turbine Generator Package #2 (A003)	Natural Gas	285 (Based on LHV at 67°F)

- b. As part of being an exempt facility from the Acid Rain Program, the Permittee shall limit supply of each turbine unit to no more than 219,000 MW-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis). [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]
- c. In the event of a natural gas emergency, defined as a disruption in the delivery of natural gas through the pipeline, the Permittee shall limit combustion of low sulfur diesel fuel (< 0.05 percent sulfur by weight) in turbines to 216 hours per year (810,000 gallons per year) for each turbine. [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]
- d. A shut-down period shall not exceed one (1) hour immediately following the initiation of a combustion gas turbine shutdown. A shutdown ends when combustion ceases in the gas turbine or upon initiation of a new startup, if combustion during the preceding shutdown has not terminated. A NO_x emission exceedance event resulting from a loss of NO_x steam injection that is caused by upsets in process gas export will be treated as a shutdown and, if the affected gas turbine(s) do not completely shutdown within one (1) hour, the time immediately following such an upset in export gas shall be treated and reported as a start-up event. [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]

- e. Startup is defined as the period of no more than two (2) hours immediately following the starting of the combustion gas turbine. Startups of the turbines at the facility shall be limited to 300 events per month, and the total cumulative start-up time shall not exceed 450 hours per calendar month for the facility. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- f. The Permittee shall limit each start-up period to 120 minutes. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- g. The Permittee shall limit the heat input for each duct burner to 77 MMBtu/hour (EU: A001a, A002a, and A003a). *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- h. The Permittee shall limit the operation of the emergency fire pump (EU: A004) to 150 hours of per year for testing and maintenance purposes. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- i. The Permittee shall limit operation of the water pump (EU: A006) to 720 hours per rolling 12-month period. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- j. The Permittee shall limit operation of the generator (EU: A008) to 168 hours per year. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- k. The Permittee shall limit the maximum amount of anhydrous ammonia to 44,200 gallons per rolling 12-months (EU: A009).
- l. The Permittee shall limit the maximum throughput of all gasoline products to 900 gallons per month and to 9,000 gallons per rolling 12-months (EU: A010).

3. Emission Controls

- a. The Permittee shall operate the Selective Catalytic Reduction (SCR) systems installed on the gas turbine units (EU: A001 through A003) a minimum of 85 percent of the plant operating hours calculated over a 12-month rolling period with an allowance of no more than 15 percent downtime due to low-temperature excursions. Low-temperature excursions are defined as temporary temperature drops below 570°F. The Permittee shall determine the operating hours by averaging across the three (3) units at the source. *[1999 EPA Consent Decree and NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- b. The Permittee shall continuously operate steam injection as long as the temperature in a gas turbine's associated heat recovery steam generator remains at or above 550°F, or the pressure of the recovery boiler remains at or above 450 pounds per square inch as measured by a calibrated gauge (psig). *[1999 EPA Consent Decree and NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- c. The Permittee shall commence ammonia injection within five (5) minutes after the SCR inlet's temperature reaches 570°F. The Permittee shall control the ammonia flow using the continuous monitoring system which will limit NO_x to 12 ppmvd @ 15 percent O₂, on a 3-hour rolling average. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- d. The Permittee shall maintain and operate the oxidation catalysts for the control of CO on each of the turbine units in accordance with manufacturer's specifications (EUs: A001 through A003). The Permittee shall operate the catalysts at all times the associated turbine units are operating, excluding periods of startup and shutdown. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- e. The Permittee shall control SO_x exhaust emissions from each combined cycle system (EUs: A001 through A003) by exclusively using pipeline quality natural gas (0.75 grains/100 dscf of

- sulfur) in accordance with the Federal Energy Regulatory Commission, and good combustion practices. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
- f. The Permittee shall control PM₁₀ exhaust emissions from each combined cycle system (EUs: A001 through A003) by properly maintaining the inlet air filters preceding each turbine as recommended by the manufacturer and good operating practice. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 - g. The Permittee shall operate the emergency generator with a turbocharger and aftercooler (EU: A008). *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 - h. The Permittee shall combust only low sulfur diesel fuel (less than 0.05 percent sulfur by weight), in the emergency fire pump (EU: A004), emergency generator (EU: A008), and water pump (EU: A006). *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 - i. The Permittee shall operate the cooling tower (EUs: A005a and A005b) with drift eliminators that maintain the drift rate at or below 0.0007 percent of the circulating water flow rate. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 - j. The Permittee shall limit the total dissolved solids (TDS) concentration in the cooling tower process water to 57,750 ppm at all times. The TDS concentration shall not exceed 38,500 ppm on a 12-month rolling average. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 - k. The Permittee shall operate and maintain all cooling towers in accordance with the manufacturer's specifications. No chromium-containing compounds shall be used for water treatment. *[40 CFR 63, Subpart Q]*
 - l. The Permittee must 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 *[40 CFR 63.11116]*:
 - i. minimize gasoline spills;
 - ii. clean up spills as expeditiously as practicable;
 - iii. cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
 - iv. minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators;
 - v. the Permittee shall have records documenting gasoline throughput within 24 hours of a request of the Control Officer; and
 - vi. the Permittee must comply with the requirements of the 40 CFR 63, Subpart CCCCCC by January 10, 2011.

C. Monitoring

- 1. To demonstrate continuous direct compliance with all emission limitations for NO_x and CO, the Permittee shall install, calibrate, maintain, operate, and certify CEMS for NO_x, CO, and O₂ on each turbine unit in accordance with CFR 75, Appendix B and 40 CFR 60.13, as applicable (EUs: A001 through A003). Each CEMS shall include an automated data acquisition and handling system. Each system shall monitor and record at least the following data: *[EPA Consent Decree, 2/99, AQR 12.5.2.6(d)/AQR 19.4.1.3(a) and 40 CFR 70.6]*
 - a. exhaust gas concentrations (in ppm) of NO_x, CO, and diluent O₂ for all turbine units (EUs: A001 through A003) at least once every 15 minutes when required by 40 CFR 60 or 40 CFR 75, as appropriate;

- b. exhaust gas flow rate (by direct or indirect methods);
 - c. fuel flow rate;
 - d. hours of operation;
 - e. three-hour rolling averages of each NO_x and CO concentrations;
 - f. hourly, daily, and quarterly accumulated mass emissions (in pounds) of NO_x and CO;
 - g. hours of downtime of the CEMS;
 - h. catalyst inlet temperature at each SCR unit; and
 - i. temperature and pressure of each heat recovery boiler which produces steam.
2. The Permittee shall follow a written quality control program plan for the CEMS dated August 2008 that describes in detail, complete, step-by-step procedures and operations contained in 40 CFR 75, Appendix B, Part 1 (Quality Control Program). The requirements of 40 CFR 75, Appendix B, Section 2.3.4 (Bias Adjustment Factor) do not apply to this source. *[EPA Final Consent Decree, February 9, 1999]*
 3. The Permittee shall conduct periodic audits and implement QA/QC procedures for CEMS conforming to the provisions of 40 CFR 75, Appendix B. *[EPA Final Consent Decree, February 9, 1999]*
 4. The Permittee shall conduct RATA of the CO, NO_x, and diluent O₂ CEMS at least annually. *[AQR 12.5.2.6(d)/AQR 19.4.1.3(a)]*
 5. The Permittee shall monitor emissions of NH₃ by use of either NO_x CEMS or NH₃ parametric emission monitoring system (PEMS). *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07) and 40 CFR 70.6]*
 6. The Permittee shall monitor incidents of "out of control" periods of the CEMS. For each calendar quarter, each CEMS shall not have total "out-of-control" periods, as defined in 40 CFR 75, Appendix B, greater than two percent (2%) of the time its associated HRSG is in operation. *[NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]*
 7. The Permittee shall verify the natural gas sulfur content at least semi-annual and verifications shall be based on reports or written data from the gas supplier or by sampling and analysis. *[AQR 12.5.2.6(d)/AQR 19.4.1.3]*
 8. The Permittee shall perform visual emissions checks each calendar quarter on a plant-wide level for each emission unit. The quarterly visual checks shall include the emergency generators and fire pump (EUs: A004, A006, and A008) 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 that appear to exceed the opacity limit, corrective actions shall be taken to minimize the emissions and, where practical, the opacity of emissions shall be visually determined in accordance with 40 CFR 60 Appendix A: Reference Method 9. *[AQR 12.5.2.6(d)/AQR 19.4.1.3(a) and 40 CFR 70.6]*
 9. The Permittee shall monitor the TDS in the cooling tower circulating water daily. 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(d)/AQR 19.4.1.3]*
 10. If the daily test for TDS ppm is within 10 percent of exceeding the allowable concentration (51,975 ppm), a second test must be completed within the 24-hour period. If the second test result is below 57,750 ppm, the two (2) tests shall be averaged together for the daily report in

order to determine permit compliance. At no time shall the TDS test result exceed 57,750 ppm. [NSR ATC/OP 360, Modification 9, Revision 0 (04/05/07)]

D. Testing

1. The Permittee shall follow performance testing requirements of 40 CFR 60 Subpart A; 40 CFR 60 Subpart GG; and DAQEM's Guideline on Performance Testing. [AQR 12.5.2.6(d)/AQR 19.4.3.1 and 40 CFR 60.335]
2. To demonstrate compliance with the PM₁₀, CO, NO_x, VOC, and NH₃ emissions limitations in this permit, the Permittee shall conduct a performance test on the turbines (EUs: A001 through A003) at least once every five (5) years. [AQR 12.5.2.6(d)/AQR 19.4.3.1]
3. Table III-D-1 summarizes NO_x, CO, VOC, NH₃, PM₁₀ and opacity performance test methods for all combustion turbines. [AQR 12.5.2.6(d)/AQR 19.4.3.1]

Table III-D-1: Performance Testing Protocol Requirements for Turbines

Test Point	Pollutant	Method (40 CFR 60, Appendix A)
Turbine Exhaust Outlet Stack	VOC	EPA Method 25a
Turbine Exhaust Outlet Stack	PM ₁₀	EPA Method 201/202 or 201A/202
Turbine Exhaust Outlet Stack	NO _x	Chemiluminescence Analyzer (EPA Method 7E)
Turbine Exhaust Stack	NH ₃ Slip	Method Pre-approved by DAQEM/EPA
Turbine Exhaust Outlet Stack	CO	EPA Method 10 analyzer
Turbine Exhaust Outlet Stack	Opacity	EPA Method 9
Stack Gas Parameters	---	EPA Methods 1, 2, 3, 4

E. Record Keeping

1. The Permittee shall maintain records on site that require semi-annual reporting and include, at a minimum: [AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]
 - a. the magnitude and duration of excess emissions, permit deviations, notifications, monitoring system performance, malfunctions, and corrective actions taken, as required by 40 CFR 60.7.

Turbine/Duct Burner Units (EUs: A001 through A003)

- b. dates and hours of operation for each turbine (EUs: A001 through A003);
- c. each CEMS "out-of-control" period, as defined in 40 CFR 75, Appendix B;
- d. time, duration, nature, and probable cause of any CEMS downtime and corrective actions taken;
- e. monthly and rolling, 12-month total quantity of natural gas consumed in each gas turbine;
- f. quantity of ammonia consumed per rolling 12-months;
- g. dates, times, and duration of each startup and shutdown event for each turbine (EUs: A001 through A003);

IC Engines (EUs: A004, A006 and A008):

- h. dates and hours of operation for each diesel engine (EUs: A004, A006, and A008);

Cooling Tower (EUs: A005a and A005b):

- i. daily TDS test results of the cooling tower, averaged monthly with 12-month rolling average; and

Gasoline Dispensing (EU: A010):

- j. monthly and 12-month rolling total of gasoline throughput [40 CFR 63.11116(b)].
2. The Permittee shall maintain records on site that include, at a minimum: [AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]
 - a. sulfur content of natural gas;
 - b. sulfur content of diesel fuel as certified by the supplier with each fuel delivery;
 - c. log of visual emissions checks;
 - d. results of performance tests conducted within the last five (5) years;
 - e. certificates of representation for the designated representative and the alternate designated representative that meet all requirements of 40 CFR 72.24;
 - f. all CEMS and/or PEMS information required by the CEMS and/or PEMS monitoring plan as specified in 40 CFR 75 Subpart F;
 - g. manufacturer's operation specifications for SCR and Oxidation Catalyst controls; and
 - h. quality assurance plan approved by the Control Officer. The quality assurance plan shall contain auditing schedules, reporting schedules, and design specifications for the CEMS. The CEMS shall conform to all provisions of 40 CFR 60.13, 40 CFR 60 Subpart GG, and 40 CFR 75. [AQR 12.5.2.6(d)/AQR 19.4.1.3(a)]
3. 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(d)/AQR 19.4.1.3(b)]
4. 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 12.5.2.6(d)/AQR 19.4.3.2]
5. The Permittee shall maintain a Risk Management Plan (RMP) as required, for the storing, handling, and use of ammonia or any chemicals subject to accidental release prevention regulations pursuant to 40 CFR 68. The Permittee shall submit an RMP to the Administrator and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification. [AQR 12.5.2.6(d)/AQR 19.4.1.3]
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(d)/AQR 19.4.1.3(b)]
7. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. [AQR 12.5.2.6(d)/AQR 19.4.1.3(b)]

F. Reporting

1. All report submissions shall be addressed to the attention of the Control Officer. [AQR 12.5.2.8(e)(4), 21.4, and 22.4]
2. All reports shall contain the following: [AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]
 - a. a certification statement on the first page, i.e., "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate and complete." (A sample form is available from DAQEM); and
 - b. a certification signature from a responsible official of the company and the date certification.

3. The Permittee shall submit semi-annual reports to the Control Officer. [AQR 12.5.2.6(d)/19.4.1.3(c)]
4. The following requirements apply to semi-annual reports: [AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]
 - a. The report shall include a semi-annual summary of each item listed in Section III-E-1.
 - 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 DAQEM within 30 calendar days after the due date.
5. Regardless of the date of issuance of this permit, the source shall comply with the schedule for report submissions outlined in Table III-F-1 [AQR 12.5.2.6(d)/AQR 19.4.1.3(c)]:

Table III-F-1: Required Report Submission Dates

Required Report	Applicable Period	Due Date ¹
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 Report	12 Months	30 days after the Operating Permit issuance anniversary date
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within 24 hours of the onset of the event
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

¹If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is 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(d)/AQR 19.4.1.3(c)]

IV. MITIGATION

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

V. ACID RAIN REQUIREMENTS

1. The source is a co-generation facility and is exempted based on the applicability criteria defined in Part 72.6(b)(4)(ii). [40 CFR 72.6(b)(4)(ii)]

VI. 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]*

VII. PERMIT SHIELD

1. 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/AQR 19.4.6]*

Table VI-1: Applicable Requirements Related to Permit Shield

Citation	Title
AQR Section 14.1.56 Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines

ATTACHMENT 1

APPLICABLE REGULATIONS

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

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

Citation	Title
AQR Section 0	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 11	Ambient Air Quality Standards
AQR Section 12	Preconstruction Review for New or Modified Stationary Sources
AQR Section 12.5	Part 70 Operating Permit Requirements (July 1, 2010)
AQR Section 14.1.56	Standards of Performance for New Stationary Sources (NSPS) – Standards of Performance for Gas Turbines
AQR Section 17	Dust Control Permit for Construction Activities Including Surface Grading and Trenching
AQR Section 18	Permit and Technical Service Fees
AQR Section 19	40 CFR Part 70 Operating Permits
AQR Section 24	Sampling and Testing - Records and Reports
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 28	Fuel Burning Equipment
AQR Section 29	Sulfur Contents of Fuel Oil
AQR Section 35	Diesel Engine Powered Electrical Equipment
AQR Section 40	Prohibition of Nuisance Conditions

Citation	Title
AQR Section 41	Fugitive Dust
AQR Section 42	Open Burning
AQR Section 43	Odors in the Ambient Air
AQR Section 55	Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area
AQR Section 60	Evaporation and Leakage
AQR Section 70	Emergency Procedures
AQR Section 80	Circumvention
AQR Section 90	Fugitive Dust from Open Areas and Vacant Lots
AQR Section 91	Fugitive Dust from Unpaved Roads, Unpaved Alleys, and Unpaved Easement Roads
AQR Section 92	Fugitive Dust from Unpaved Parking Lots, Material Handling and Storage Yards, and Vehicle and Equipment Storage Yards

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

Citation	Title
40 CFR 52.21	Prevention of Significant Deterioration (PSD)
40 CFR 52.1470	SIP Rules
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions
40 CFR 60, Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR 70	Federally Mandated Operating Permits
40 CFR 82	Protection of Stratospheric Ozone