

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: 329
Issued in accordance with the
Clark County Air Quality Regulations (AQR)

ISSUED TO: SWG Nevada Holdings, LLC

SOURCE LOCATION:

1701 Alexander Road
North Las Vegas, NV 89030
T20S, R61E, Section 11
Hydrographic Basin Number: 212

COMPANY ADDRESS:

1701 Alexander Road
North Las Vegas, NV 89030

NATURE OF BUSINESS:

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

RESPONSIBLE OFFICIAL:

Name: Greg Trewitt
Title: VP of Operations & Technical Services
Phone: (702) 642-0331
Fax Number: (702) 642-8738

Permit Issuance Date: November 1, 2006
Permit Revision Date: August 26, 2011

Expiration Date: November 1, 2011

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



Lewis Wallenmeyer
Director, Clark County DAQEM

EXECUTIVE SUMMARY

Las Vegas Cogeneration Plant, owned and operated by SWG Nevada Holdings, LLC (SWG NV), is a major source for NO_x, a synthetic minor source for PM₁₀, and a minor source for CO, SO_x, VOC, and HAP. The source is under SIC 4931: Electric Cogeneration (NAICS 221112: Fossil Fuel Electric Power Generation) and is located on 1701 East Alexander Road in North Las Vegas, Nevada, in the Las Vegas Valley airshed, hydrographic basin 212 (T20S, R61E, Section 11). Hydrographic basin 212 is nonattainment for CO, PM₁₀, and ozone, and attainment for all other regulated air pollutants.

The SWG NV operates five Turbine Generator Packages with GE LM-6000 stationary combustion turbines, one with a heat recovery steam generator (HRSG) and four with once-through steam generators (OTSG). There is no supplemental firing (no duct burners). There are also two auxiliary boilers that are used to heat thermal heat tanks at the adjacent greenhouse. There are no emissions associated with the HRSG and OTSG units or the steam turbine itself. In addition, the SWG NV operates two cooling towers, fire pump, diesel emergency generator, and ammonia storage tank.

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	68.89	101.39	55.60	6.10	40.14	9.19	110.33
Major Source Thresholds	70	50	100	100	50	25/10¹	1.0

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.

TABLE OF CONTENTS

I.	ACRONYMS.....	4
II.	GENERAL CONDITIONS	5
	A. General Requirements.....	5
	B. Modification, Revision, Renewal Requirements	5
	C. Reporting/Notifications/Providing Information Requirements.....	6
	D. Compliance Requirements.....	6
	E. Performance Testing Requirements	8
III.	EMISSION UNITS AND APPLICABLE REQUIREMENTS.....	9
	A. Emission Units.....	9
	B. Emission Limitations and Standards.....	9
	1. Emission Limits.....	9
	2. Production Limits.....	10
	3. Emission Controls	11
	C. Monitoring	12
	D. Testing	14
	E. Record Keeping	14
	F. Reporting.....	16
IV.	MIGITATION	17
V.	ACID RAIN REQUIREMENTS	17
VI.	OTHER REQUIREMENTS	17
VII.	PERMIT SHIELD.....	17
	ATTACHMENT 1	18

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)]
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. [AQR 12.5.2.6(f)]
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. 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)]
4. The permit does not convey any property rights of any sort, or any exclusive privilege. [AQR 12.5.2.6(g)(4)]
5. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to *interfere* with the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by the AQR. [AQR 5.1]
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]
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) 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)]
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)]*
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]*
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]*

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Control Officer along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*
2. The Permittee shall allow the Control Officer or an authorized representative, upon presentation of credentials:
 - a. entry upon the Permittee's premises where the source is located, or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
 - b. access to inspect and copy, at reasonable times, any records that must be kept under conditions of the permit;
 - c. access to inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. access to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. *[AQR 4.3 and 12.5.2.8(b)]*
3. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit. *[AQR 12.5.2.6(g)(2)]*

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)]*
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)]
10. The Permittee shall notify the Control Officer, in writing, of the initial startup date of any emission unit a minimum 60 days prior to the actual startup. The Permittee must also notify the Administrator at USEPA Region IX, 75 Hawthorne Street, San Francisco, CA, (Attention: Enforcement Supervisor) of the initial startup date of any emission unit. [AQR 12.5.2.6(l)]
11. 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)]

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]
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]

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

A. Emission Units

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

Table III-A-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #
A01	Turbine Generator Package Unit 1, Natural Gas-fired; SCR and Oxidation Catalyst	397 MMBtu/hr; 44 MW	General Electric	LM-6000	260245
A02	Two-cell mechanical draft cooling tower, 3,000 ppm TDS, 0.005% drift loss, Cell 1	14,200 gpm total	GEA	TD-3630-2-2422CF	N/A
A03	Turbine Generator Package Unit 2, Natural Gas-fired; SCR and Oxidation Catalyst	451 MMBtu/hr; 44 MW	General Electric	LM-6000	310891
A04	Turbine Generator Package Unit 3, Natural Gas-fired; SCR and Oxidation Catalyst	451 MMBtu/hr; 44 MW	General Electric	LM-6000	311668
A05	Turbine Generator Package Unit 4, Natural Gas-fired; SCR and Oxidation Catalyst	451 MMBtu/hr; 44 MW	General Electric	LM-6000	311724
A06	Turbine Generator Package Unit 5, Natural Gas-fired; SCR and Oxidation Catalyst	451 MMBtu/hr; 44 MW	General Electric	LM-6000	312189
A07	10-cell mechanical draft cooling tower, 3,000 ppm TDS, 0.001% drift loss; Cell 1	58,610 gpm total	GEA	363028-10I-22-WCF	N/A
B01	Hot Water Boiler	13.39 MMBtu/hr	Volcano	BF-400L	656-E
B02	Hot Water Boiler	13.39 MMBtu/hr	Volcano	BF-400L	657-E
C01	Diesel Fire Pump	121 hp	Caterpillar	3208	90N74714
D01	Emergency Generator - Engine	163 hp	Generac	95A00971S	2019062
	Emergency Generator - Genset	125 kW			
D02	Aqueous Ammonia Storage and Injection	10,085-gal storage tank	Trusco Tank	N/A	F93726

B. Emission Limitations and Standards

1. Emission Limits

- a. Neither the actual nor the allowable emissions shall exceed the calculated PTE listed in Tables IV-B-1 through IV-B-3. [NSR ATC/OP Modification 3, Revision 5, (05/20/09)]
- b. Hourly emission limits for CO and NH₃ for Turbine Generation Packages 1 through 5 (EU: A01 and A03 through A06) shall not be exceeded for any one-hour averaging period as determined by the CEMS, excluding any start-up or shut-down periods as defined. [NSR ATC/OP Modification 3, Revision 5, (05/20/09)]
- c. Hourly emission limits for NO_x for Turbine Generation Packages 1 through 5 (EU: A01 and A03 through A06) shall not be exceeded for any three-hour rolling average period as determined by the CEMS, excluding any start-up or shut-down periods as defined. [NSR ATC/OP Modification 3, Revision 5, (05/20/09)]

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

EU	PM ₁₀	NO _x	CO	SO _x	VOC	HAP	NH ₃
A01	7.70	48.00	22.00	0.80	5.00	1.83	13.20
A02	4.66	0.00	0.00	0.00	0.00	0.00	0.00
A03	10.95	13.14	8.00	1.31	8.76	1.83	24.28
A04	10.95	13.14	8.00	1.31	8.76	1.83	24.28
A05	10.95	13.14	8.00	1.31	8.76	1.83	24.28
A06	10.95	13.14	8.00	1.31	8.76	1.83	24.28
A07	12.61	0.00	0.00	0.00	0.00	0.00	0.00
B01	0.04	0.18	0.75	0.01	0.03	0.01	0.00
B02	0.04	0.18	0.75	0.01	0.03	0.01	0.00
C01	0.01	0.11	0.02	0.01	0.01	0.01	0.00
D01	0.03	0.36	0.08	0.03	0.03	0.01	0.00
D02 ²	0.00	0.00	0.00	0.00	0.00	0.00	0.01

¹ Annual limits for turbines are based upon 66 °F. Annual start-up and shut-down emissions are included.

² Sealed system, only fugitive ammonia emissions are included.

Table IV-B-2: Emission Unit PTE, Excluding Startup and Shutdowns (lbs/hr)¹

EU	PM ₁₀	NO _x	CO	SO _x	VOC	HAP	NH ₃
A01	3.00	14.00	9.00	0.30	2.00	2.25	5.00
A03	2.50	3.15	1.92	0.30	2.00	2.25	5.83
A04	2.50	3.15	1.92	0.30	2.00	2.25	5.83
A05	2.50	3.15	1.92	0.30	2.00	2.25	5.83
A06	2.50	3.15	1.92	0.30	2.00	2.25	5.83
B01	0.10	0.50	2.52	0.01	0.07	0.03	0.00
B02	0.10	0.50	2.52	0.01	0.07	0.03	0.00

¹ Hourly limits are based on 36 °F.

Table IV-B-3: Enforceable Emissions Limitations (ppmvd)

EU	Description	NO _x	CO	NH ₃
A01 ¹	Unit 1 w/ SCR	10	10	10
A03 ¹	Unit 2 w/ SCR	2.0	2.0	10
A04 ¹	Unit 3 w/ SCR	2.0	2.0	10
A05 ¹	Unit 4 w/ SCR	2.0	2.0	10
A06 ¹	Unit 5 w/ SCR	2.0	2.0	10
B01 ²	IBW Boiler w/ DLN	30	250	N/A
B02 ²	IBW Boiler w/ DLN	30	250	N/A

¹ Limitations in ppmvd @ 15 percent O₂.

² Limitations in ppmvd @ 3 percent O₂ (Section 49).

- d. The boilers (EU: B01 and B02) shall not emit more than 30 ppm NO_x or 250 ppm CO. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- e. 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, when viewed in accordance with EPA Method 9. *[AQR 26.1.1]*

2. Production Limits

- a. The Permittee shall include startup and shutdown emissions, as recorded by the continuous emission monitoring system (CEMS) for NO_x and CO in the annual emission totals. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*

- b. The Permittee shall limit Turbine Generation Packages Unit 1 (EU: A01) to 397 MMBtu/hr of natural gas, based on LHV corrected to standard conditions. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- c. The Permittee shall limit each Turbine Generation Package Unit (EU: A03 through A06), to 451 MMBtu/hr of natural gas based on the HHV of the fuel, corrected to standard conditions. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- d. The Permittee shall limit total annual startup/shutdown cycles for Units 2 through 5 (EU: A03 through A06) to 792 occurrences per unit annually. Each start-up cycle shall constitute one occurrence and each shut-down cycle will constitute one occurrence. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- e. Startup shall consist of the first 120 minutes of operation. The period will begin with first fire on fuel and will continue for 120 consecutive minutes. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- f. A shutdown is defined as the one-hour period immediately preceding the cessation of firing of the gas turbine. A shutdown shall not exceed 60 consecutive minutes. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- g. The Permittee shall limit operation of each boiler (EUs: B01 and B02) to 700 hours per year. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- h. The Permittee shall limit operation of the diesel fire pump (EU: C01) to 100 hours per year for testing and maintenance purposes only. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- i. The Permittee shall limit operation of the emergency generator (EU: D01) to 100 hours per year for testing and maintenance purposes only. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- j. The Permittee shall limit maximum water flow of the cooling tower (EU: A02) to 14,200 gallons per minute. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- k. The Permittee shall limit maximum water flow of the GEA cooling tower (EU: A07) to 58,610 gallons per minute. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*

3. Emission Controls

- a. The Permittee shall, under all conditions, operate the source in a manner consistent with good air pollution control practice for minimizing emissions as required by 40 CFR 60.11.
- b. The Permittee shall maintain and operate the SCRs on all five turbine units (EUs: A01 and A03 through A06) in accordance with manufacturer's specifications. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- c. The Permittee shall operate the SCR at all times the associated turbine unit is operating, excluding startup and shutdown. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- d. The Permittee shall operate the SCR such that neither the NO_x nor NH₃ emissions exceed the limitations listed in Tables IV-B-1 and IV-B-2. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- e. The Permittee shall maintain and operate the CO oxidation catalyst in five turbine units (EUs: A01 and A03 through A06) in accordance with manufacturer's specifications. The catalysts shall be operated at all times the associated turbine unit is operating, excluding startup and shutdown. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- f. The Permittee shall operate the oxidation catalysts such that CO emissions do not exceed the limitations listed in Tables IV-B-1 and IV-B-2. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- g. The Permittee shall equip, operate and maintain a water injection system on Units 1 through 5 (EU: A01 and A02 through A06). The water injection system shall be operated in

- accordance with the manufacturer's specifications and good operating practice. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
- h. The Permittee shall operate water injection during all times of turbine operation (EU: A01 and A02 through A06) as an integral part of NO_x control. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - i. The Permittee shall control SO_x exhaust emissions from each stationary gas turbine (EUs: A01 and A02 through A06) and the two 13.39 MMBtu/hr boilers (EU: B01 and B02) by exclusive use of pipeline quality natural gas as defined by Federal Energy Regulatory Commission (0.75 grains/100 dscf of sulfur) and good combustion practice. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - j. The Permittee shall control PM₁₀ exhaust emissions from each stationary gas turbine by properly maintaining the inlet air filters preceding each turbine as recommended by the manufacturer and good operating practice (EUs: A01 and A02 through A06). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - k. The Permittee shall operate the IBW 13.39 MMBtu/hr boiler with low-NO_x burners (EUs: B01 and B02). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - l. The Permittee shall operate the diesel fire pump and the emergency generator with turbocharger and aftercooler (EUs: C01 and D01). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - m. The Permittee shall combust only low sulfur diesel fuel, defined as less than 0.05 percent sulfur by weight, in the fire pump and emergency generator (EUs: C01 and D01). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - n. The Permittee shall maintain the GEA Thermo cooling tower drift rate at or below 0.005 percent of the circulating water flow rate. The Permittee shall maintain total dissolved solids (TDS) concentration in the cooling tower process water at or below 3,000 ppm (based on a 30-day average) (EUs: A02). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - o. The Permittee shall maintain the GEA cooling tower drift rate at or below 0.001 percent of the circulating water flow rate. The Permittee shall maintain total dissolved solids (TDS) concentration in the cooling tower process water at or below 3,000 ppm (based on a 30-day average) (EUs: A07). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 - p. The Permittee shall maintain and operate all cooling towers per manufacturer's specifications. No chromium-containing compounds shall be used in the cooling tower process water. *[40 CFR 63, Subpart Q]*

C. Monitoring

- 1. To demonstrate continuous, direct compliance with the emission limitations for NO_x, and CO specified in this permit, the Permittee shall install, calibrate, maintain, operate, and certify CEMS on Units 1 through 5 (EU: A01 and A03 through A06). The system shall include an automated data acquisition and handling system. The CEMS shall monitor and record at least the following data in addition to meeting the requirements of 40 CFR 60 Subpart GG and 40 CFR 75 *[AQR 12.5.2.6(d) and 40 CFR 75]*:
 - a. hours of operation;
 - b. electrical load;
 - c. fuel consumption and type;
 - d. water injection rate;
 - e. exhaust gas flow rate (by direct or indirect methods);
 - f. exhaust gas concentration of NO_x, CO and O₂;
 - g. one-hour average CO and NH₃ concentrations;
 - h. three-hour average NO_x concentration;
 - i. the mass flow rate of NO_x and CO;

- j. daily and quarterly accumulated mass emissions of NO_x and CO; and
 - k. hours of downtime for CEMS.
2. CEMS for Units 1 through 5 (EU: A01 and A03 through A06) shall be initially certified and tested pursuant to 40 CFR 75, Appendix A: CEMS Specifications and Test Procedures and 40 CFR 60 Appendices B and F. Subsequent CEMS certifications for Units 1 through 5 must be conducted with representative sampling of the stack. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 3. CEMS certification and recertification procedures shall be met as required in 40 CFR 75.20 for Units 1 through 5 (EU: A01 and A03 through A06). *[40 CFR 75.20]*
 4. CEMS QA/QC procedures shall conform to the provisions of 40 CFR 75 Appendix B for Units 1 through 5 (EU: A01 and A03 through A06). *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 5. Any exceedance of the hourly or annual NO_x and/or CO emission limitations as determined by the CEMS shall be considered a violation of the emission limit imposed and may result in enforcement action. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 6. The Permittee shall conduct RATA of the NO_x and CO CEMS at least annually. Alternatively the Permittee shall follow 40 CFR 75, Appendix B as it pertains to RATA testing. *[AQR 12.5.2.6(d)]*
 7. The Permittee has installed Method 1 multipoint CEMS probes to meet requirements of 40 CFR 60 Appendix B. As long as multipoint probes are installed and maintained according to manufacturer instructions, no stratification is assumed and the stratification testing is not required (EU: A03 through A06). *[AQR 12.5.2.6(d)]*
 8. The equation used for NH₃ PEMS shall only be modified if indicated by the RATA test results. If the equation used for NH₃ PEMS is changed without indication from the RATA test results, then a new RATA test may be required by the Control Officer. *[AQR 12.5.2.6(d)]*
 9. A Quality Assurance Plan for all CEMS required by this permit shall be submitted to the Control Officer at least 45 days prior to performance testing of the turbines. The Quality Assurance Plan shall include auditing schedules, reporting schedules, design specifications, and other quality assurance requirements for each CEMS. The DAQEM recommends submittal no less than 180 days prior to anticipated performance test to preclude any delays in startup or performance testing. The Quality Assurance Plan must be approved by the Control Officer (after comment by EPA) prior to the issuance of an operating permit. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 10. Required periodic audit procedures shall conform to the provisions of 40 CFR 60 Appendix F and 40 CFR 75 Appendix B. For linearity and RATA testing schedules and linearity ranges the Permittee shall follow 40 CFR 75 Appendix B. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
 11. 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 diesel-fired emergency generators and fire pump (EUs: C01 and D01) while operating, not necessarily simultaneously, to demonstrate compliance with the opacity limit. If any of the diesel-fired emergency generators or fire pump does not operate during the calendar quarter, then no observation of that unit shall be required. If visible emissions are observed, then corrective actions shall be taken to minimize the emissions and 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) and 40 CFR 70.6]*
 12. During periods of cooling towers operation, the Permittee shall monitor TDS in the tower circulating water at least weekly. *[AQR 12.5.2.6(d)]*
 13. The Permittee shall use conductivity method to monitor TDS or an equivalent method approved in advance by the Control Officer. *[AQR 12.5.2.6(d)]*

14. The Permittee shall verify the fuel gas sulfur content at least annually 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)]
15. Sulfur content of diesel fuel shall be certified by the supplier with each fuel delivery. [AQR 12.5.2.6(d)]

D. Testing

1. Performance testing is subject to 40 CFR 60, Subpart A, Dc and GG; 40 CFR 72; 40 CFR 75, Title IV-Acid Rain Regulations; DAQEM Guideline on Performance Testing and AQR Section 49. [AQR 12.5.2.6(d) and 40 CFR 60.335]
2. The Permittee shall conduct a performance test for NO_x, CO, VOCs, PM₁₀, NH₃, and opacity on each of the turbine package units (EUs A01 and A03 through A06) to demonstrate compliance with the emission limitations. [AQR 12.5.2.6(d)]
3. Table IV-D-1 summarizes NO_x, CO, VOC, NH₃, PM₁₀, and opacity performance test methods for turbine package units. [AQR 12.5.2.6(d)]

Table IV-D-1: Performance Testing Requirements for Turbine Package Units

Test Point	Pollutant	Method
Turbine/HRSG/OTSG Exhaust Outlet Stack	NO _x	Chemiluminescence Analyzer (EPA Method 7E)
Turbine/HRSG/OTSG Exhaust Outlet Stack	CO	EPA Method 10
Turbine/HRSG/OTSG Exhaust Outlet Stack	VOCs	EPA Method 25a
Turbine/HRSG/OTSG Exhaust Outlet Stack	NH ₃ Slip	Method Pre-Approved by EPA
Turbine/HRSG/OTSG Exhaust Outlet Stack	Opacity	EPA Method 9
Turbine/HRSG/OTSG Exhaust Outlet Stack	PM ₁₀	EPA Methods 201/201a and 202
Stack Gas Parameters	---	EPA Methods, 1, 2, 3, 4, or Method 19

4. Performance tests for PM₁₀, NO_x, CO, SO_x, NH₃ and VOC shall be conducted on all turbine units every five years. [AQR 12.5.2.6(d)]
5. The Permittee shall perform an inspection and a burner efficiency test once each year on the two 13.39 MMBtu/hr boilers (EU: B01 and B02) in accordance with AQR Subsection 49.5.1. [AQR 49.5.1]
6. Performance testing shall be conducted on both IBW 13.39 MMBtu/hr water heater boilers (EUs: B01 and B02) once every five years. Performance testing shall demonstrate compliance with the emission limits of NO_x and CO set forth in this permit. Table IV-D-2 summarizes performance test methods for the boilers. [AQR 12.5.2.6(d)]

Table IV-D-2: Performance Testing Requirements for Boilers

Test Point	Pollutant	Method
Boiler Exhaust Outlet Stack	NO _x	Chemiluminescence Analyzer (EPA Method 7E)
Boiler Exhaust Outlet Stack	CO	EPA Method 10 analyzer
Stack Gas Parameters	-	EPA Methods 1, 2, 3, 4, or Method 19

E. Record Keeping

1. The Permittee shall maintain records on site that require semi-annual reporting and include, at a minimum: [AQR AQR 12.5.2.6(d)]
 - 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 Packages (EUs: A01 and A02 through A06):

- b. monthly and quarterly hours of operation for each turbine including start-up and shut-down cycles;
- c. monthly and quarterly quantities of natural gas consumed in stationary gas turbine(s);
- d. CEMS audit results or accuracy checks, corrective actions, etc., as required by 40 CFR 60, Appendix F, and the CEMS Quality Assurance Plan;
- e. quarterly CEMS summary of NO_x and CO emissions;

Boilers (EUs: B01 and B02):

- f. hours of operation and daily, monthly and quarterly quantities of natural gas consumed in boilers;

IC Engines (EUs: C01 and D01):

- g. hours of operation of diesel engines, with emergency use logged separately from testing and maintenance;

Cooling Towers (EUs: A02a-b and A07a-j):

- h. monthly TDS test results of the cooling towers.

- 2. The Permittee shall maintain records on site that include, at a minimum: *[AQR 12.5.2.6(d)]*
 - 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. Certificates of Representation for the designated representative and the alternate designated representative that meet all requirements of 40 CFR 72.24;
 - e. copies of all records, reports, compliance certifications, and submissions made or required under the Acid Rain Program;
 - f. copies of all documents used to complete an Acid Rain Permit application and any other submission under the Acid Rain Program to demonstrate compliance with the requirements of the Acid Rain Program;
 - g. all CEMS and/or PEMS information required by the CEMS and/or PEMS monitoring plan as specified in 40 CFR 75 Subpart F;
 - h. manufacturer's operation specifications for SCR and Oxidation Catalyst controls;
 - i. 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 Subpart GG and 40 CFR 75 *[AQR AQR 12.5.2.6(d)/AQR 19.4.1.3(a)]*;
 - j. quantity of ammonia used;
 - k. results of burner efficiency test for boilers; and
 - l. summary of results of all performance testing.
- 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 AQR 12.5.2.6(d)]*
- 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)]*
- 5. 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 AQR 12.5.2.6(d)]*

6. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. [AQR AQR 12.5.2.6(d)]

F. Reporting

1. The Permittee shall comply with all applicable notifications and reporting requirements of 40 CFR 60.7, 40 CFR Subparts Dc and Gg, 40 CFR 72.9, and 40 CFR 75. [AQR 12.5.2.6(d)]
2. All report submissions shall be addressed to the attention of the Control Officer. [AQR 12.5.2.8(e)(4)]
3. All reports shall contain the following: [AQR AQR 12.5.2.6(d)]
 - a. a certification statement from the responsible official, 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)
4. The Permittee shall submit semi-annual and annual reports to the Control Officer. [AQR 12.5.2.6(d)]
5. The following requirements apply to semi-annual reports: [AQR 12.5.2.6(d)]
 - 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 of the due date.
6. 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)]:

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	Calendar Year	January 30 each year
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within one (1) hour of the onset of the event
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 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.

7. Pursuant to AQR Section 25, the Permittee shall report to the Control Officer, any upset/breakdowns or emergencies resulting in excess emissions of air pollutants, within one (1) hour of the onset of the occurrence. (Phone: (702) 455-5942, Fax: (702) 383-9994). [AQR 25.1]
8. 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)]
9. The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72 and 40 CFR 75. [40 CFR 72]

IV. MITIGATION

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

V. ACID RAIN REQUIREMENTS

1. In accordance with the provisions of Title IV of the Clean Air Act and 40 CFR Parts 72 through 77, this Acid Rain Permit is issued to SWG Nevada Holdings, LLC, Las Vegas, Nevada.
2. All terms and conditions of the permit are enforceable by DAQEM, EPA and citizens under the Clean Air Act. *[40 CFR 72]*
3. The Permittee shall comply with all the applicable requirements of the Acid Rain Permit Application. *[40 CFR 72.30]*
4. This Acid Rain permit incorporates the definitions of terms in 40 CFR Part 72.2. *[40 CFR 72.2]*
5. This permit is valid for a term of five (5) years from the date of issuance unless a timely and complete renewal application is submitted to DAQEM. *[40 CFR 72.69]*
6. A timely renewal application is an application that is received at least six months prior to the permit expiration date. *[40 CFR 72.30]*
7. Emissions from this source shall not exceed any allowances that the source lawfully holds under Title IV of the Act or its regulations. *[AQR 12.5.2.6(d) and 40 CFR 73]*

VI. OTHER REQUIREMENTS

1. The Permittee is subject to 40 CFR 60 Subparts, A, Dc, and GG, 40 CFR 70, § CFR 72, 40 CFR 73, and 40 CFR 75. It is the responsibility of the Permittee to know and comply with all requirements within these federal regulations. *[NSR ATC/OP Modification 3, Revision 5, (05/20/09)]*
2. 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 standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in gases discharged to the atmosphere. *[40 CFR 60.12]*
3. 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]*

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	Air Quality Models
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
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

Citation	Title
40 CFR 60, Subpart Dc	Standards of Performance for New Stationary Sources (NSPS) – Industrial-Commercial-Institutional Steam Generating Units
40 CFR 60, Subpart GG	Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR 70	Federally Mandated Operating Permits
40 CFR Part 72	Acid Rain Permits
40 CFR Part 73	Acid Rain Sulfur Dioxide Allowance System
40 CFR Part 75	Acid Rain CEMS
40 CFR 82	Protection of Stratospheric Ozone