TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
ADMINISTRATIVE REVISION TO THE PART 70 OPERATING PERMIT

for

Nevada Sun-Peak, LP
Clark County, Nevada

Facility: 423
SIC Code 4911: Electric Services
NAICS Code 221112: Fossil Fuel Electric Power Generation

Clark County
Department of Air Quality
May, 2014

I. PERMITTING ACTION

Nevada Sun-Peak, LP is an electrical power generating peaking plant located at 6360 Vegas Valley Drive, Las Vegas, Nevada 89142, in the Las Vegas Valley airshed, hydrographic basin number 212 which is designated as nonattainment for PM_{10} and PSD for all other regulated air pollutants.

This administrative revision to the Title V Operating Permit issued on May 19, 2014, is to delete a second reporting requirements section (Section G) erroneously left in the final permit and to revise the Other Requirements (Section IV) in the issued permit. Nevada Sun-Peak is not subject to 40 CFR 63, Subpart WWWW.

The September 18, 2013 application and the corresponding May 19, 2014 permitting action was a minor revision, and a reduction in the reporting frequency from quarterly to semi-annual would be considered a significant revision per AQR 12.5.2.14(a)(1)(B). Therefore, semi-annual reporting cannot be added through a minor permitting action.

Other changes are:

a. Changing “DAQEM” to “Air Quality”;
b. Deleted Condition III-E-4 as Condition II-F-4 contains the Control Officer’s right to require additional reports and reporting;
c. Deleted Condition III-F-4 as Condition II-D-6 contains the source’s requirements during an upset, breakdown, malfunction, or emergency.

TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
APPLICATION FOR A MINOR REVISION TO THE PART 70 OPERATING PERMIT

for

Nevada Sun-Peak, LP
Clark County, Nevada

Facility: 423
SIC Code 4911: Electric Services
NAICS Code 221112: Fossil Fuel Electric Power Generation

Clark County
Department of Air Quality
May, 2014

This Technical Support Document (TSD) accompanies the proposed Part 70 Operating Permit for NEVADA SUN-PEAK, LP.

TABLE OF CONTENTS

I. ACRYONYMS 3

II. EXECUTIVE SUMMARY 3

III. SOURCE INFORMATION 5

A. General 5
B. Description of Process 5

IV. EMISSIONS INFORMATION 5

A. Total Source Potential to Emit 5
B. Control Technology 6
C. Emission Units, Emission Limitations, and PTE 6
D. Performance Testing 8

V. REGULATORY REVIEW 8

A. Local Regulatory Requirements 8
B. Federally Applicable Regulations 10

VI. COMPLIANCE 10

I. ACRYONYMS

Table I-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
CE	Control Efficiency
CEM	Continuous Emissions Monitoring System
CF	Control Factor
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
EF	Emission Factor
EPA	United States Environmental Protection Agency
EU	Emission Unit
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
HP	Horse Power
MMBtu	Millions of British Thermal Units
NO_X	Nitrogen Oxides
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PM_{10}	Particulate Matter less than 10 microns
Ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
Scf	Standard Cubic Feet
SIP	State Implementation Plan
SO_X	Sulfur Oxides
TSD	Technical Support Document
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

II. EXECUTIVE SUMMARY

Nevada Sun-Peak, LP is an electrical power generating peaking plant located at 6360 Vegas Valley Drive, Las Vegas, Nevada 89142, in the Las Vegas Valley airshed, hydrographic basin number 212 which is designated as nonattainment for PM_{10} and PSD for all other regulated air pollutants.

Nevada Sun-Peak, LP operates three GE Frame PG 7111-EA, 84.5 MW stationary gas turbines in the simple cycle mode (EUs: A01, A02, and A03) which, through combustion of fuel, produce PM_{10}, NO_X, CO, SO_2, VOC and HAP emissions. The source also has a lubricating oil system associated with each stationary gas turbine (EUs: A04, A05, and A06) which provide a constant supply of oil to bearings, gears and other stationary gas turbine components requiring lubrication. These “lube oil vents” generate a minimal amount of VOC emissions. Each stationary gas turbine is permitted to fire on natural gas or diesel fuel oil. All processes at the site are grouped under SIC 4911 – Electric Services and NAICS 221112 – Fossil Fuel Electric Power Generation.

Nevada Sun-Peak, LP is a major stationary source for NO_X and Greenhouse Gases (GHG) and is a minor source for PM_{10}, CO, SO_x, VOC and HAP. The stationary gas turbines are subject to the requirements of 40 CFR 60, Subparts A and GG.

Table II-2 lists the sum of the PTEs of the permitted emission units.

Table II-2: Source PTE (tons per year)

PM_{10}	$PM_{2.5}$	NO_x	CO	SO_x	VOC	H_2S	Pb	GHG[1]
11.01	11.01	249.90	33.21	49.50	5.04	**0**	**0**	304,471.1

[1]Metric tons per year

Nevada Sun-Peak, LP has applied for a minor modification to the Part 70 Operating Permit to:

1. Incorporate the 502(b)(10) notification of May 16, 2013:
    a. to modify the CO Startup/Shutdown to 50 lb/event and remove the CO lb/hr emission limits for Natural Gas combustion (Table III-B-5);
    b. increase the lb/hr and lb/event SO_2 limits during startups/shutdowns (Tables III-B-3 and III-B-5);
    c. clarify that water injection does not begin simultaneously when gas flows to a turbine (Condition III-B-3(b)); and
    d. clarify that shutdown begins when a stop command is issued to a turbine and ends when fuel flow to the turbine ceases.

The above proposed changes were partially revised with the following supplemental applications.

2. Per the request of September 18, 2013:
    a. modify Table III-B-5 of the current Title V OP to increase the CO Startup limit to 60 lb/event limit based on a worst case scenario; and
    b. remove the CO lb/hr limit during startup/shutdown (Table III-B-5).

The above proposed changes were partially revised with the following supplemental applications.

3. Per the request of November 12, 2013:
    a. remove the shutdown CO lb/hr limit in Table III-B-5; and
    b. limit the CO startup emissions to 350 lb/hr. This is an increase from the previous permit and supersedes the request to remove this limit.

An internal review by the source indicated that the CO analyzers were over-ranging for approximately 5-6 minutes during startup and shutdown events. This limited the emissions recorded during each event. The CO analyzers were modified to include the high range CO emissions monitored during each startup/shutdown event and showed that the PTE limits were being exceeded. Nevada Sun-Peak proposed limits that reflect the data available from the most recent performance test and a worst-case scenario.

The SO_2 limits are being changed based on the definition of Pipeline Quality Natural Gas provided in 40 CFR 72.2 and using the provided emission rated, provided in 40 CFR 75

Appendix D 2.3.1.1, of 0.0006 lb/MMBtu. This increases the PTE found in Table IV-C-2 below, but does not increase the source-wide PTE for SO_2 as this is based on the combustion of diesel fuel.

Based on the information submitted by the applicant and a technical review performed by Air Quality staff, Air Quality proposes the revision of a Part 70 Operating Permit to Nevada Sun-Peak, LP.

III. SOURCE INFORMATION

A. General

Table III-A-1: General Source Information

Permittee	**Nevada Sun-Peak, LP**
Mailing Address	6360 Vegas Valley Dr., Las Vegas, NV 89142
Responsible Official	Robert Graben
Phone Number	(702) 457-0797
Fax Number	(702) 457-2043
Source Locations	6360 Vegas Valley Dr., Las Vegas, NV 89142
Hydrographic Area	212
Township, Range, Section	T21S, R62E, Section 10
SIC Code	SIC Code 4911: Electric Services
NAICS Code	NAICS Code 221112: Fossil Fuel Electric Power Generation

B. Description of Process

Nevada Sun-Peak, LP, operates three simple cycle stationary natural gas turbines that can also file #2 diesel oil. Three lube oil vents are present at the source that emit VOC. Existing equipment at this source is grouped under Standard Industrial Classification 4911: Electric Services.

Nevada Sun-Peak, LP, is a major source for NO_x and GHG and a minor source for all the other regulated air pollutants.

IV. EMISSIONS INFORMATION

A. Total Source Potential to Emit

The source PTE for pollutants as presented in the Part 70 Operating Permit application is listed in Table IV-A-1.

Table IV-A-1: Source-wide PTE (tons per year)

PM_{10}	$PM_{2.5}$	NO_x	CO	SO_x	VOC	H_2S	Pb	GHG[1]
11.01	11.01	249.90	33.21	49.50	5.04	**0**	**0**	304,471.1

[1]Metric tons per year

B. Control Technology

A control technology review is not required with this permitting action.

C. Emission Units, Emission Limitations, and PTE

Table IV-C-1: Source Emission Units

EU	Description	Rating	Make	Model #	Serial #	SCC
A01	Stationary Gas Turbine #3; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295657	20100201
	Stationary Gas Turbine #3; #2 diesel oil fired; MEQ = 21.24					20100101
A02	Stationary Gas Turbine #4; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295658	20100201
	Stationary Gas Turbine #4; #2 diesel oil fired; MEQ = 21.24					20100101
A03	Stationary Gas Turbine #5; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295659	20100201
	Stationary Gas Turbine #5; #2 diesel oil fired; MEQ = 21.24					20100101
A04	Lube Oil Vent (Stationary Gas Turbine #3)	---	---	---	---	30600813
A05	Lube Oil Vent (Stationary Gas Turbine #4)	---	---	---	---	30600813
A06	Lube Oil Vent (Stationary Gas Turbine #5)	---	---	---	---	30600813

Table IV-C-2: Emission Unit PTE, Including Startup and Shutdowns for Natural Gas Combustion (tons per rolling 12-months)

EU	PM_{10}	NO_x	CO	SO_2	VOC
A01	8.73[1]	249.90[1]	33.21[1]	1.09[1]	3.15[1]
A02					
A03					
A04	0.00	0.00	0.00	0.00	0.01
A05	0.00	0.00	0.00	0.00	0.01
A06	0.00	0.00	0.00	0.00	0.01

[1] Emission limitations based on 3,495 hours per any rolling 12-month period for all three stationary gas turbines combined.

Table IV-C-3: Emission Unit PTE, Including Startup and Shutdowns for #2 Diesel Oil Combustion (tons per rolling 12-months)

EU	PM_{10}	NO_x	CO	SO_2	VOC
A01	11.01[1]	249.90[1]	20.91[1]	49.50[1]	5.01[1]
A02					
A03					
A04	0.00	0.00	0.00	0.00	0.01
A05	0.00	0.00	0.00	0.00	0.01
A06	0.00	0.00	0.00	0.00	0.01

[1] Emission limitations based on 2,202 hours per any rolling 12-month period for all three stationary gas turbines combined.

Table IV-C-4: Emission Unit PTE, Excluding Startups and Shutdowns (pounds per hour)[1,2]

EU	Fuel	PM_{10}	NO_x	CO	SO_2	VOC
A01	Natural Gas	5.00	143.00	19.00	0.51	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A02	Natural Gas	5.00	143.00	19.00	0.51	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A03	Natural Gas	5.00	143.00	19.00	0.51	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A04	N/A	0.00	0.00	0.00	0.00	0.01
A05	N/A	0.00	0.00	0.00	0.00	0.01
A06	N/A	0.00	0.00	0.00	0.00	0.01
Total Source PTE		**30.00**	**681.00**	**57.00**	**135.00**	**13.53**

[1]The exclusion for startups and shutdowns apply only to CO. No other emission exclusions apply in this table.
[2] Total PTE is based on summation of worst case scenario for each pollutant between natural gas and #2 diesel oil.

Table IV-C-5: Emission Concentrations, Three-hour Averaging Period, Excluding Startup and Shutdown

EU	O_2 Standard	NO_X (ppmvd)		CO (ppmvd)	
		Natural Gas	#2 Diesel Oil	Natural Gas	#2 Diesel Oil
A01	15%	42	65	10	10
A02	15%	42	65	10	10
A03	15%	42	65	10	10

Table IV-C-6: Startup and Shutdown Emissions per Stationary Gas Turbine for Natural Gas Combustion[1]

EU	Description	Units	PM_{10}[2]	NO_x[3]	CO[4]	SO_2[2]	VOC[2]
A01, A02, and A03	Startup	pounds/event	5.00	143.00	60.00	0.51	1.80
		pounds/hr	5.00	143.00	350.00	0.51	1.80
	Shutdown	pounds/event	5.00	143.00	60.00	0.51	1.80
		pounds/hr	5.00	143.00	N/A	0.51	1.80

[1] Startup and shutdown emission factors are to be used to calculate compliance with annual emissions limits. Emission factors will be used when CEMS data is not available.
[2] PM_{10}, SO_2 and VOC startup and shutdown emission rates are estimated to be equal to the emission rates for regular operation.
[3] The NO_X startup and shutdown emission rates (provided by the source from CEMS) were found to be less than the emission rate for regular operation due to the slow start of the unit. As such, the regular operation emission rate was incorporated as a worst case scenario.
[4] The CO startup and shutdown emission rates were provided by the source and determined from CEMS.

Table IV-C-7: Estimated HAP Emissions

HAP	Emission Factor[1] (lb/MMBtu)	Per Stationary Gas Turbine (pounds/hr)	Per Stationary Gas Turbine (tons/year)
Benzene	1.10×10^{-4}	0.11	0.06
Formaldehyde	3.25×10^{-4}	0.31	0.16
Manganese	3.40×10^{-4}	0.32	0.11
Nickel	1.20×10^{-3}	1.13	0.39
Phosphorous	3.00×10^{-4}	0.28	0.09
Toluene	4.94×10^{-4}	0.47	0.25

HAP	Emission Factor[1] (lb/MMBtu)	Per Stationary Gas Turbine (pounds/hr)	Per Stationary Gas Turbine (tons/year)
Xylenes	1.10×10^{-3}	1.05	0.56
Lead	8.90×10^{-6}	0.01	0.01
Total Per Stationary Gas Turbine		**3.68**	**1.63**
EU A04		**0.01**	**0.01**
EU A05		**0.01**	**0.01**
EU A06		**0.01**	**0.01**
Total for Source		**11.07**	**4.92**

[1] HAP emission factors are from USEPA's FIRE database, Version 3.0, 1994 and were provided by the source.

No single source-wide HAP emission shall exceed ten tons per year and total source-wide HAP emissions shall not exceed 25 tons per year. Therefore, this source is not subject to MACT for stationary gas turbines. In addition, no other emission units at this source are subject to MACT.

Table IV-C-8: Source Allowable Emissions[1]

Pollutant	PM_{10}	$PM_{2.5}$	NO_x	CO	SO_2	VOC	HAP
tons/year	**11.01**	**11.01**	**249.90**	**33.21**	**49.50**	**5.04**	**4.92**

[1] Emissions are based on worst case scenario for each pollutant between natural gas and #2 diesel oil.

D. Performance Testing

No new performance testing requirements were added in this permitting action.

V. REGULATORY REVIEW

A. Local Regulatory Requirements

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

Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq.;

Title 40 of the Code of Federal Regulations (CFR);

Nevada Revised Statutes (NRS), Chapter 445B;

Portions of the AQR that are included in the State Implementation Plan (SIP) for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from Authority to Construct permits and Section 16 Operating Permits issued by Air Quality are federally enforceable because these permits were issued pursuant to SIP-included sections of the AQR; and

Portions of the AQR that are <u>not</u> included in the SIP. These locally applicable requirements are locally enforceable only.

The Nevada Revised Statutes (NRS) and the Clean Air Act Amendments (CAAA) are public laws that establish the general authority for the Regulations mentioned.

The Air Quality Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No.

234. AQR Section 19 - Part 70 Operating Permits [Amended 07/01/04] details the Clark County Part 70 Operating Permit Program. These regulations may be accessed on the Internet at:

http://www.clarkcountynv.gov/depts/AirQuality/Pages/Rules_CurrentRulesandRegulations.aspx

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

Discussion: Nevada Sun-Peak, LP, is a major source of NO_X and GHG.

Table V-A-2: Air Quality and SIP with Source Compliance or Requirement

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire facility
4. Control Officer	all subsections	yes	entire facility
5. Interference with Control Officer	all subsections	yes	entire facility
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire facility
9. Civil Penalties	all subsections	yes	entire facility
10. Compliance Schedule	when applicable; applicable subsections	yes	entire facility
11. Ambient Air Quality Standards	applicable subsections	yes	entire facility
12. Preconstruction Review for New or Modified Stationary Sources	All subsections <u>except</u> the following: § 12.2.18 HAP Sources in Clark County. § 12.2.20 Additional Requirements for STATIONARY SOURCES with Beryllium, Mercury, Vinyl Chloride, or Asbestos EMISSIONS in Clark County	yes	entire facility
14. New Source Performance Standards	AQR Section 14.1: Subpart Dc Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units.	no	Applicable – emission units with design heat capacity more than 10 MMBtu/hr, but less than 100 MMBtu/hr
18. Permit and Technical Service Fees	§ 18.1 Operating Permit Fees § 18.2 Annual Emission Unit Fees § 18.4 New Source Review Application Review Fee § 18.5 Part 70 Application Review Fee § 18.6 Annual Part 70 Emission Fee § 18.14 Billing Procedures	yes	entire facility

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
24. Sampling and Testing - Records and Reports	§ 24.1 Requirements for installation and maintenance of sampling and testing facilities § 24.2 Requirements for emissions record keeping § 24.3 Requirements for the record format § 24.4 Requirements for the retention of records by the emission sources	yes	entire facility
25.1 Upset/Breakdown, Malfunctions	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions	no	entire facility
25.2 Upset/Breakdown, Malfunctions	§ 25.2 Reporting and Consultation	yes	entire facility
26. Emission of Visible Air Contaminants	§ 26.1 Limit on opacity (≤ 20 percent for 3 minutes in a 60-minute period)	yes	entire facility
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire facility
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire facility
42. Open Burning	§ 42.2	no	entire facility
43. Odors In the Ambient Air	§ 43.1 Prohibitions coded as Section 29	no	entire facility
60. Evaporation and Leakage	all subsections	yes	entire facility
70. Emergency Procedures	all subsections	yes	entire facility
80. Circumvention	all subsections	yes	entire facility

An increment consumption analysis is not required with this permitting action.

B. Federally Applicable Regulations

No new federal regulations apply to the source.

VI. COMPLIANCE

No new compliance requirements were added in this permitting action.

TECHNICAL SUPPORT DOCUMENT

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

SUBMITTED BY

NEVADA SUN-PEAK, LP

For

NEVADA SUN-PEAK, LP

Part 70 Operating Permit Number: 423
(Renewal)

SIC Code - 4911: Electric Utility Services

Clark County
Department of Air Quality and Environmental Management
Permitting Section

October, 2010

This Technical Support Document (TSD) accompanies the proposed Part 70 Operating Permit for Nevada Sun-Peak, LP.

TABLE OF CONTENTS

Page

I. ACRONYMS 3

II. EXECUTIVE SUMMARY 3

III. SOURCE INFORMATION 5

A. General 5
B. Description of Process 5
C. Permitting History 6
D. Operating Scenario 7
E. Proposed Exemptions 8

IV. EMISSIONS INFORMATION 8

A. Total Source Potential to Emit 8
B. Equipment Description 8
C. Emission Units, Emission Limitations and PTE 8
D. Performance Testing and Continuous Emission Monitoring 11
E. Continuous Emissions Monitoring 12

V. REGULATORY REVIEW 12

A. Local Regulatory Requirements 13
B. Federally Applicable Regulations 15

VI. COMPLIANCE 18

A. Compliance Certification 18
B. Compliance Summary 20
C. Streamlining Demonstration for Shielding Purposes 27
D. Summary of Monitoring for Compliance 29

VII. EMISSION REDUCTION CREDITS (OFFSETS) 30

VIII. ADMINISTRATIVE REQUIREMENTS 30

I. ACRONYMS

Table I-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
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
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_2	Sulfur Dioxide
SO_x	Sulfur Oxides
TCS	Toxic Chemical Substance
ULN	Ultra Low-NO_x
VOC	Volatile Organic Compound

II. EXECUTIVE SUMMARY

Nevada Sun-Peak, LP is an electrical power generating peaking plant located at 6360 Vegas Valley Drive, Las Vegas, Nevada 89142 in the Las Vegas Valley airshed, hydrographic basin number 212 which is designated as basic nonattainment for PM_{10}, CO, and ozone and attainment for all other regulated pollutants.

Nevada Sun-Peak, LP operates three GE Frame PG 7111-EA, 84.5 MW stationary gas turbines in the simple cycle mode (EUs: A01, A02 and A03) which through combustion of fuel produce PM_{10}, NO_X, CO, SO_2, VOC and HAP emissions. The source also has a lubricating oil system associated with each stationary gas turbine (existing EU: A04 and new, as of this permitting action, EUs: A05 and A06) which provide a constant supply of oil to bearings, gears and other stationary gas turbine components requiring lubrication. These “lube oil vents” generate a minimal amount of VOC emissions. Each stationary gas turbine is permitted to fire on natural gas or #2 diesel oil. All processes at the site are grouped under SIC 4911 – Electric Services and NAICS 221112 – Fossil Fuel Electric Power Generation.

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

PM_{10}	NO_X	CO	SO_2	VOC	HAP
11.01	**249.90**	**33.21**	**49.50**	**5.04**	**4.92**

Nevada Sun-Peak, LP is a major source for NO_X and is a minor source for PM_{10}, CO, SO_2, VOC and HAP. The stationary gas turbines are subject to the requirements of 40 CFR 60, Subparts A and GG.

The previous renewal for the Part 70 OP was issued on February 25, 2005. This Part 70 OP is issued based on the Title V renewal application submitted on May 7, 2009, additional supplemental information submitted on October 2, 2009; November 12, 2009; and December 9, 2009.

Based on the information submitted by the applicant and a technical review performed by the DAQEM staff, the DAQEM proposes the renewal of a Part 70 Operating Permit to Nevada Sun-Peak, LP.

III. SOURCE INFORMATION

A. General

Permittee	Nevada Sun-Peak, LP
Mailing Address	9590 Prototype Court, Suite 200, Reno, Nevada 89521
Contacts	Robert Graben
Phone Number	(702) 457-0797 ext. 21
Fax Number	(702) 457-2043
Source Location	6360 Vegas Valley Drive, Las Vegas, Nevada 89142
Hydrographic Area	212
Township, Range, Section	T21S, R62E, Section 10
SIC Code	4911 – Electric Services
NAICS Code	221112 - Fossil Fuel Electric Power Generation

B. Description of Process

Nevada Sun-Peak, LP has three simple cycle stationary gas turbines operating as peaking units. The plant is capable of generating a nominal 253.5 MW of gross electrical power. The stationary gas turbines are heavy-duty, single shaft units each rated at 84.5 MW (nominal). When operating on natural gas, the heat input is limited to 846 MMBtu/hr based on lower heating value (LHV) of 21,537 Btu/lb natural gas (39,280 lbs/hour of natural gas). When operating on #2 diesel oil, the heat input is limited to 833 MMBtu/hr (LHV) of 131,699 Btu/gallon #2 diesel oil (6,325 gallons per hour). The turbines are limited to 12 hours per day (regardless of fuel). The annual limit on hours of operation for all three turbines combined is 3,495 hours when operating on natural gas and 2,202 hours when operating on #2 diesel oil. If both fuels are used during the year, then the total hours firing on natural gas plus 1.59 multiplied by the hours firing on #2 diesel oil shall not exceed 3,495 hours.

Each stationary gas turbine is equipped with inlet air filtering and inlet air evaporative coolers. Combustion air for each stationary gas turbine is filtered by media filters housed in an inlet filter compartment mounted adjacent to the stationary gas turbine compartment. The filter housing also contains the evaporative cooling system. Air flows through the air filter, evaporative cooler and associated inlet air ductwork of each turbine and is then compressed. Natural gas (or #2 diesel oil) is injected into the combustor section and ignited. The hot combustion gases expand through the combustion section to drive the turbines.

The stationary gas turbines are equipped with water injection to reduce NO_X emissions. NO_X and CO emissions are monitored with continuous emission monitoring system (CEMS).

C. Permitting History

Nevada Sun-Peak, LP is regulated by the Clark County Department of Air Quality and Environmental Management (DAQEM) and has a Title V permit. The facility is a major source for NO_X. The initial Part 70 OP was issued July 21, 1997.

Table III-C-1: Permits Issued to Nevada Sun-Peak

Date Issued	Permit Number	Description
09/20/90	NSR ATC Modification 0	ATC for EUs: A01, A02 and A03 with conditions issued.
05/17/91	NSR OP	Provided full operational authority for the ATC issued 09/20/90.
07/10/97	NSR ATC Modification 1	Revised conditions.
07/21/97	Part 70 OP	Initial Part 70 Operating Permit issued.
02/05/99	Part 70 OP	Modification to Part 70 Operating Permit
09/14/00	Part 70 OP	Transfer of Ownership
03/21/04	NSR ATC/OP Modification 1	Provided full operational authority for the ATC issued 7/10/97 and added lube oil vent (EU: A04).
02/25/05	Part 70 OP	Part 70 Operating Permit Renewal issued.
2/22/10	NSR ATC/OP Modification 1, Revision 1	Change of ownership, addition of lube oil vents.
04/29/10	NSR ATC/OP, Modification 1, Revision 2	Revision of presentation of turbine PTE limits.

DAQEM received the Part 70 OP renewal application on May 7, 2009. The source requested the following changes to the Part 70 OP:

a. Update Facility Address
b. Update Responsible Official
c. Remove requirement stating that source is to verify compliance with 40 CFR 60 Subpart GG sulfur content through quarterly sulfur content certification from supplier since source verifies sulfur content in natural gas by sending out sample of natural gas for laboratory testing.

On October 2, 2009 DAQEM received supplemental information from the source requesting changes to the NSR ATC/OP issued on March 21, 2004 as well as a request to incorporate all changes into the Part 70 OP. The additional changes requested were:

d. Add two additional lube oil vents to correspond to the appropriate number of stationary gas turbines.
e. Clarify heat input determination (specifically, language in regards to assumed atmospheric conditions) and practical enforceability of heat input.
   DAQEM Response: The origin of the heat input determination was researched and found to be correct. Exhaust emissions were measured for each stationary gas turbine by the manufacturer at specific site conditions (1 atm, 80 Deg. F, 60% relative humidity) which were listed accordingly in the permit. As such, these conditions will remain as stated.
f. Revise inconsistencies in regards to the referencing of SO_X and SO_2.
   DAQEM Response: DAQEM changed all references of SO_X to SO_2 per the source's request.
g. Remove the requirement for limiting facility-wide PTE emissions.

DAQEM Response: DAQEM removed all references to a facility-wide PTE emissions limit per the source's request.

On November 12, 2009 DAQEM received additional information from the source which requested the following:

h. Clarify permit language with regard to water injection control of NO_X.
DAQEM Response: DAQEM clarified the language according to the source's recommendations.

On December 9, 2009 DAQEM received additional information from the source regarding the startup and shutdown emission factors which incorporated the following changes:

i. Add startup and shutdown emission factors to the permit in the event CEMS is not available.

On March 31, 2010 DAQEM received additional information from the source that requested the following:

j. Revise the emission unit PTE table in the ATC to reflect a combined operating limit for all three turbines as was consistent with the production limitations.
DAQEM Response: DAQEM revised the emission PTE table to better reflect the intent of the production limits, which was to apply the operating hour limitation as a total for all three turbines combined.

Additionally, there was a mistake in the HAP emissions calculation. The source wide HAP PTE was calculated to be 4.86 tons per year. This value is incorrect as it does not include the lead emissions as calculated in the NSR permit for each stationary gas turbine nor does it include the HAP emissions associated with the lube oil vent. The HAP emission calculation has been corrected as part of this permitting action.

Table III-C-2: BACT Determinations for Stationary Gas Turbine Units

EU	Description	BACT Technology	BACT Limit Natural Gas	BACT Limit #2 Diesel Oil
A01	84.5 MW Stationary Gas Turbine	Water injection for NO_X, low sulfur fuel and good combustion practices.	42 ppmvd NO_x and 10 ppmvd CO on a 3-hour average at 15% O_2	65 ppmvd NO_x and 10 ppmvd CO on a 3-hour average at 15% O_2
A02	84.5 MW Stationary Gas Turbine			
A03	84.5 MW Stationary Gas Turbine			

D. Operating Scenario

Stationary Gas Turbines

The stationary gas turbines operate only during periods of peak power demand and are heavy-duty, single shaft units each rated at 84.5 MW (nominal). When operating on natural gas, the heat input is limited to 846 MMBtu/hr based on lower heating value of 21,537 Btu/lb natural gas (39,280 lbs/hour of natural gas). When operating on #2 diesel oil, the heat input is limited to 833 MMBtu/hr based on lower heating value of 131,699 Btu/gallon #2 diesel oil (6,325 gallons per hour). Determination of these heating values and consumption rates is taken from the General Electric Performance Standards and is based on evaporative cooler on, 1 atmospheric pressure, 80°F and 60 percent relative humidity. The annual limit on hours of operation for all three stationary gas turbines combined is 3,495 hours when operating on natural gas and 2,202 hours when operating on #2 diesel oil.

Lubricating Oil System
Each of the stationary gas turbines has a lubricating (lube) oil system to provide a constant supply of oil to bearings, gears, and other components requiring lubrication. The oil supply systems are pressurized. The oil in the lubricated components is typically at atmospheric pressure and requires an atmospheric vent. As with the natural gas conveyance system, these systems leak to a minor extent.

E. Proposed Exemptions

Nevada Sun-Peak has not proposed any exemptions.

IV. EMISSIONS INFORMATION

A. Total Source Potential to Emit

Table IV-A-1 reflects the sum of the PTEs of all permitted emission units. Nevada Sun-Peak, LP is a major source for NO_X and a minor source for PM_{10}, CO, SO_2, VOC and HAP.

Table IV-A-1: Total Source PTE (tons per rolling 12-months)[1]

Pollutant	PM_{10}	NO_x	CO	SO_2	VOC	HAP
PTE Totals	11.01	249.90	33.21	49.50	5.04	4.92
Major Source Thresholds	70	50	70	100	50	10/25[2]

[1]Total emissions are based on the worst-case scenario for each pollutant between natural gas and #2 diesel oil combustion.
[2] 25 tons for combination of all HAPs (no single HAP exceeds 10 tons).

B. Equipment Description

The air emission source equipment and associated major equipment are listed below.

Power Block Equipment
Three (3) General Electric PG7111-EA, 84.5 MW Stationary Gas Turbine units:
a. Natural gas or #2 diesel oil firing
b. Inlet air filters with filter cleaning system,
c. EU Identification A01, A02 and A03,
d. Each has a lube oil vent.

C. Emission Units, Emission Limitations and PTE

The stationary source covered by this Part 70 OP is defined to consist of the emission units summarized in Table IV-C-1.

Table IV-C-1: Source Emission Units

EU	Description	Rating	Make	Model #	Serial #	SCC
A01	Stationary Gas Turbine #3; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295657	20100201
	Stationary Gas Turbine #3; #2 diesel oil fired; MEQ = 21.24					20100101
A02	Stationary Gas Turbine #4; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295658	20100201
	Stationary Gas Turbine #4; #2 diesel oil fired; MEQ = 21.24					20100101

EU	Description	Rating	Make	Model #	Serial #	SCC
A03	Stationary Gas Turbine #5; natural gas fired; MEQ = 33.71	84.5 MW	General Electric	PG7111-EA	295659	20100201
	Stationary Gas Turbine #5; #2 diesel oil fired; MEQ = 21.24					20100101
A04	Lube Oil Vent (Stationary Gas Turbine #3)	---	---	---	---	30600813
A05	Lube Oil Vent (Stationary Gas Turbine #4)	---	---	---	---	30600813
A06	Lube Oil Vent (Stationary Gas Turbine #5)	---	---	---	---	30600813

Stationary Gas Turbines (EUs: A01, A02 and A03)

PM_{10}, NO_X and CO emission rates in lb/hr per each stationary gas turbine were read from the GE Estimated Performance Sheet for #2 diesel oil or natural gas at an ambient temperature of 80°F and a relative humidity of 60 percent. SO_2 emissions for #2 diesel oil combustion were estimated assuming 0.05% sulfur content by weight and assuming all sulfur is completely oxidized. A mass use rate of #2 diesel oil was developed using the constant heat generation rate (833 MMBtu/hr for #2 diesel oil) and the fuel Btu value reported on the GE Estimate Performance Sheet (18,550 Btu/lb for #2 diesel oil). SO_2 emissions for natural gas combustion were estimated assuming a concentration of 600 grains per million cubic feet of natural gas and 1000 Btu/cubic foot of natural gas. VOC emissions were estimated using the unburned hydrocarbons (UHC) lb/hr value listed on the GE Estimated Performance Sheet, assuming 50 percent by weight of the UHC is VOC for #2 diesel oil combustion and 20 percent by weight of the UHC is VOC for natural gas combustion.

Lube Oil Vents (EUs: A04, A05 and A06)

VOC emissions were based on GE's oil mist concentration estimate of 0.1023 milligrams per standard cubic feet, exhaust flow rate of 1,467 standard cubic feet per minute and 0.05 lbs of VOC per pound of oil.

Table IV-C-2: Emission Unit PTE, Including Startup and Shutdowns for Natural Gas Combustion (tons per rolling 12-months)

EU	PM_{10}	NO_x	CO	SO_2	VOC
A01	8.73[1]	249.90[1]	33.21[1]	0.30[1]	3.15[1]
A02					
A03					
A04	0.00	0.00	0.00	0.00	0.01
A05	0.00	0.00	0.00	0.00	0.01
A06	0.00	0.00	0.00	0.00	0.01

[1] Emission limitations based on 3,495 hours per any rolling 12-month period for all three stationary gas turbines combined.

Table IV-C-3: Emission Unit PTE, Including Startup and Shutdowns for #2 Diesel Oil Combustion (tons per rolling 12-months)

EU	PM_{10}	NO_x	CO	SO_2	VOC
A01	11.01[1]	249.90[1]	20.91[1]	49.50[1]	5.01[1]
A02					
A03					
A04	0.00	0.00	0.00	0.00	0.01
A05	0.00	0.00	0.00	0.00	0.01

EU	PM_{10}	NO_x	CO	SO_2	VOC
A06	0.00	0.00	0.00	0.00	0.01

[1] Emission limitations based on 2,202 hours per any rolling 12-month period for all three stationary gas turbines combined.

Table IV-C-4: Emission Unit PTE, Excluding Startups and Shutdowns (pounds per hour)[1,2]

EU	Fuel	PM_{10}	NO_x	CO	SO_2	VOC
A01	Natural Gas	5.00	143.00	19.00	0.17	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A02	Natural Gas	5.00	143.00	19.00	0.17	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A03	Natural Gas	5.00	143.00	19.00	0.17	1.80
	#2 Diesel Oil	10.00	227.00	19.00	45.00	4.50
A04	N/A	0.00	0.00	0.00	0.00	0.01
A05	N/A	0.00	0.00	0.00	0.00	0.01
A06	N/A	0.00	0.00	0.00	0.00	0.01
Total Source PTE		**30.00**	**681.00**	**57.00**	**135.00**	**13.53**

[1] The exclusion for startups and shutdowns apply only to CO. No other emission exclusions apply in this table.
[2] Total PTE is based on summation of worst case scenario for each pollutant between natural gas and #2 diesel oil.

Table IV-C-5: Emission Concentrations, Three-hour Averaging Period, Excluding Startup and Shutdown

EU	O_2 Standard	NO_X (ppmvd)		CO (ppmvd)	
		Natural Gas	#2 Diesel Oil	Natural Gas	#2 Diesel Oil
A01	15%	42	65	10	10
A02	15%	42	65	10	10
A03	15%	42	65	10	10

Table IV-C-6: Startup and Shutdown Emissions per Stationary Gas Turbine for Natural Gas Combustion[1]

EU	Description	Units	PM_{10}[2]	NO_x[3]	CO[4]	SO_2[2]	VOC[2]
A01	Startup	pounds/event	5.00	143.00	8.50	0.17	1.80
		pounds/hr	5.00	143.00	17.00	0.17	1.80
	Shutdown	pounds/event	5.00	143.00	10.40	0.17	1.80
		pounds/hr	5.00	143.00	69.10	0.17	1.80
A02	Startup	pounds/event	5.00	143.00	8.50	0.17	1.80
		pounds/hr	5.00	143.00	17.00	0.17	1.80
	Shutdown	pounds/event	5.00	143.00	10.40	0.17	1.80
		pounds/hr	5.00	143.00	69.10	0.17	1.80
A03	Startup	pounds/event	5.00	143.00	8.50	0.17	1.80
		pounds/hr	5.00	143.00	17.00	0.17	1.80
	Shutdown	pounds/event	5.00	143.00	10.40	0.17	1.80
		pounds/hr	5.00	143.00	69.10	0.17	1.80

[1] Startup and shutdown emission factors are to be used to calculate compliance with annual emissions limits. Emission factors will be used when CEMS data is not available.
[2] PM_{10}, SO_2 and VOC startup and shutdown emission rates are estimated to be equal to the emission rates for regular operation.

[3] The NO_X startup and shutdown emission rates (provided by the source from CEMS) were found to be less than the emission rate for regular operation due to the slow start of the unit. As such, the regular operation emission rate was incorporated as a worst case scenario.
[4] The CO startup and shutdown emission rates were provided by the source and determined from CEMS.

Table IV-C-7: Estimated HAP Emissions

HAP	Emission Factor[1] (lb/MMBtu)	Per Stationary Gas Turbine (pounds/hr)	Per Stationary Gas Turbine (tons/year)
Benzene	1.10×10^{-4}	0.11	0.06
Formaldehyde	3.25×10^{-4}	0.31	0.16
Manganese	3.40×10^{-4}	0.32	0.11
Nickel	1.20×10^{-3}	1.13	0.39
Phosphorous	3.00×10^{-4}	0.28	0.09
Toluene	4.94×10^{-4}	0.47	0.25
Xylenes	1.10×10^{-3}	1.05	0.56
Lead	8.90×10^{-6}	0.01	0.01
Total Per Stationary Gas Turbine		**3.68**	**1.63**
EU A04		**0.01**	**0.01**
EU A05		**0.01**	**0.01**
EU A06		**0.01**	**0.01**
Total for Source		**11.07**	**4.92**

[1] HAP emission factors are from USEPA's FIRE database, Version 3.0, 1994 and were provided by the source.

No single source-wide HAP emission shall exceed ten tons per year and total source-wide HAP emissions shall not exceed 25 tons per year. Therefore, this source is not subject to MACT for stationary gas turbines. In addition, no other emission units at this source are subject to MACT.

Table IV-C-8: Source Allowable Emissions[1]

Pollutant	PM_{10}	NO_x	CO	SO_2	VOC	HAP
lbs/hour	**30.00**	**681.00**	**57.00**	**135.00**	**13.53**	**11.07**
tons/year	**11.01**	**249.90**	**33.21**	**49.50**	**5.04**	**4.92**

[1] Emissions are based on worst case scenario for each pollutant between natural gas and #2 diesel oil.

D. Testing

Performance testing is subject to 40 CFR 60 Subpart A, 40 CFR 60 Subpart GG, and DAQEM Guideline of Performance Testing. Any required performance testing will be performed using the following methods:

Table IV-D-1: Performance Testing Requirements for Stationary Gas Turbines

Test Point	Pollutant	Method (40 CFR 60, Appendix A)
Turbine Exhaust Outlet Stack	PM_{10}	Method 5
Turbine Exhaust Outlet Stack	VOC	Method 25A
Turbine Exhaust Outlet Stack	NO_X	Chemiluminescence Analyzer (EPA Method 7E) or Method 20
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

Annual Relative Accuracy Test Audits (RATA) testing must be performed on each NO_x, CO, and diluent O_2 Continuous Emissions Monitoring Systems (CEMS).

When firing on natural gas, NO_X and CO performance testing shall be conducted once every five years.

When firing #2 diesel oil the source shall conduct Method 9 performance testing on each stationary gas turbine after 500 aggregate hours of operation and after each aggregation of 500 hours thereafter. Initial source testing of the PM_{10} and VOC emission limits for each stationary gas turbine while firing #2 diesel oil shall be conducted after an aggregate of 750 hours of operation in each stationary gas turbine and after each aggregation of 750 hours thereafter. The source has not yet reached 500 hours of operation plant-wide while firing #2 diesel oil; therefore, performance testing has not been completed.
All performance tests on the stationary gas turbines must conform to 40 CFR 60 Subparts A and GG.

E. Continuous Emissions Monitoring

To demonstrate continuous direct compliance with all emission limitations for NO_X and CO specified in this permit, Nevada Sun-Peak, LP operates a continuous emission monitoring system (CEMS) for NO_X, CO and O_2 on each stationary gas turbine unit (EUs: A01, A02 and A03) in accordance with 40 CFR 60. The CEMS monitors and records the following parameters for each individual stationary gas turbine:

1. exhaust gas concentrations of NO_x, CO, and diluent O_2;
2. exhaust gas flow rate (by direct or indirect methods);
3. fuel flow rate and type;
4. hours of operation;
5. 3-hour rolling averages of each NO_x and CO concentrations (in ppm) for each stationary gas turbine;
6. hourly, daily and quarterly accumulated mass emissions of NO_x and CO; and
7. hours of downtime of the CEMS.

The sulfur content shall not exceed a rolling 12-month average of 0.5 grains/100 dscf. Compliance with the emission limitations for SO_2 specified in the Part 70 OP, when firing #2 diesel oil shall be demonstrated by using one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2 and 2.2.4.3 of Appendix D to 40 CFR 75 When firing natural gas, compliance with the SO2 emission limitations shall be verified through the use of a fuel which meets the definition of natural gas per 40 CFR 60.331(u) and demonstrating, by representative fuel sampling data, that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR 75 is required.

Required periodic audit procedures and QA/QC procedures for CEMS shall conform to the provisions of 40 CFR 60, Appendix F. Relative accuracy test audits (RATA) of the CO, NO_X and O_2 CEMS shall be conducted at least annually.

V. REGULATORY REVIEW

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

1. CAAA, Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the CFR;
3. NRS, Chapter 445B;

4. Portions of the AQR included in the SIP for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from ATC permits issued by DAQEM are federally enforceable because these permits were issued pursuant to SIP-included sections of the AQR; and
5. Portions of the AQR not included in the SIP. These locally applicable requirements are locally enforceable only.

A. Local Regulatory Requirements

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

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

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

Table V-A-1: AQR Section 12 and 55 Summary Table for This Source (As Addressed by Part 70 OP)

	PM_{10}	NO_x	CO	SO_2	VOC	HAP
Air Quality Area	Basic nonattainment (ozone)	PSD	Basic nonattainment (ozone)	PSD	PSD	N/A
Source PTE (tpy)	11.01	249.90	33.21	49.50	5.04	4.92
Major Source	≥ 70 tpy	≥ 50 tpy	≥ 70 tpy	≥ 100 tpy	≥ 50 tpy	≥ 10 tpy for each HAP, or ≥ 25 tpy for combined HAPs

Discussion: Nevada Sun-Peak, LP is a major source of NO_x. As part of the original NSR Analysis all of these emissions triggered notice of proposed action.

Table V-A-2: Clark County DAQEM – AQR with Source Compliance or Requirement

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire source
1. Definitions	applicable definitions – "Affected Facility", "Air Contaminant", "Air Pollution Control Committee", "Area Source", "Atmosphere", "Board", "Commercial Off-Road Vehicle Racing", "Dust", "Existing Facility", "Existing Gasoline Station", "Fixed Capital Cost", "Fumes", "Health District", "Hearing Board", "Integrated Sampling", "Minor Source", "Mist", "New Gasoline Station", "New Source", "NIC", "Point Source", "Shutdown", "Significant", "Single Source", "Smoke", "Source of Air Contaminant", "Special Mobile Equipment", "Standard Commercial Equipment", "Standard Conditions", "Start Up", "Stop Order", "Uncombined Water", and "Vapor Disposal System"	yes	entire source
2. Air Pollution Control Board	all subsections	yes	entire source
4. Control Officer	all subsections	yes	entire source
5. Interference with Control Officer	all subsections	yes	entire source
6. Injunctive Relief	all subsections	yes	entire source
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire source
9. Civil Penalties	all subsections	yes	entire source
10. Compliance Schedule	when applicable; applicable subsections	yes	entire source
11. Ambient Air Quality Standards	applicable subsections	yes	entire source
12. Preconstruction Review for New or Modified Stationary Sources	All subsections <u>except</u> the following: 12.2.18 HAP Sources in Clark County. 12.2.20 Additional Requirements for STATIONARY SOURCES with Beryllium, Mercury, Vinyl Chloride, or Asbestos EMISSIONS in Clark County	Yes except 12.2.18 and 12.2.20	entire source
14. New Source Performance Standards	CCAQR Section 14.1.56: Subpart GG Standards of Performance for Stationary Gas Turbines	no	Stationary Gas Turbines
16. Operating Permits	all subsections	yes	entire source
18. Permit and Technical Service Fees	18.1 Operating Permit Fees 18.2 Annual Emission Unit Fees 18.4 New Source Review Application Review Fee 18.5 Part 70 Application Review Fee 18.6 Annual Part 70 Emission Fee 18.14 Billing Procedures	yes	entire source

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
19. Part 70 Operating Permit Federal Approval (11/25/01)	19.2 Applicability 19.3 Part 70 Permit Applications 19.4 Part 70 Permit Content 19.5 Permit Issuance, Renewal, Re-openings, and Revisions 19.6 Permit Renewal by the EPA and Affected States 19.7 Fee Determination and Certification	N/A	entire source
21. Acid Rain Permits	all subsections	no	An acid rain permit is not required.
22. Acid Rain Continuous Emissions Monitoring	all subsections	no	An acid rain permit is not required.
24. Sampling and Testing - Records and Reports	24.1 Requirements for installation and maintenance of sampling and testing facilities 24.2 Requirements for emissions record keeping 24.3 Requirements for the record format 24.4 Requirements for the retention of records by the emission sources	yes	entire source
25.1 Upset/Breakdown, Malfunctions	25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions	no	entire source
25.2 Upset/Breakdown, Malfunctions	25.2 Reporting and Consultation	yes	entire source
26. Emission of Visible Air Contaminants	26.1 Limit on opacity (≤ 20 percent for 3 minutes in a 60-minute period)	yes	entire source
28. Fuel Burning Equipment	Emission Limitations for PM	yes	entire source
29. Sulfur Contents of Fuel Oil	Sulfur content shall be equal to or less than 0.05 percent sulfur by weight	no	Stationary gas turbines
40. Prohibitions of Nuisance Conditions	40.1 Prohibitions	no	entire source
41. Fugitive Dust	41.1 Prohibitions	yes	entire source
42. Open Burning	42.2	no	entire source
43. Odors In the Ambient Air	43.1 Prohibitions coded as Section 29	no	entire source
55. Preconstruction Review for New or Modified Stationary Sources in the 8-hour Ozone Nonattainment Area	all subsections	no	entire source
60. Evaporation and Leakage	all subsections	yes	entire source
70. Emergency Procedures	all subsections	yes	entire source
80. Circumvention	all subsections	yes	entire source
81. Provisions of Regulations Severable	all subsections	yes	entire source

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

Source Location: 661030, 3979710 (Universal Transverse Mercator (UTM) NAD83)

Nevada Sun-Peak is a major source in Hydrographic Area 212 (Las Vegas Valley). Permitted emission units include three turbines and three lube oil vents. Since minor source baseline dates for NO_X (October 21, 1988) and SO_2 (June 29, 1979) have been triggered, Prevention of Significant Deterioration (PSD) increment analysis is required. DAQEM modeled the source using AERMOD to track the increment consumption.

The source was modeled for the NO_X and SO_2 increment consumption. Stack data submitted by the applicant were supplemented with information available for similar emission units. Five years (1999 to 2003) of meteorological data from the McCarran Station and Desert Rock Station were used in the model. United States Geological Survey (USGS) 7.5-minute National Elevation Dataset (NED) terrain data was used to calculate elevations. Table 1 presents the results of the modeling.

Table V-A-3: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source (μg/m^3)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO_2	3-hour	40.46[1]	676905	4001355
SO_2	24-hour	12.70[1]	677000	4001500
SO_2	Annual	0.56	677000	4001500
NO_X	Annual	0.24	677000	4001500

[1]Modeled 2nd High Concentration

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

B. Federally Applicable Regulations

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

Subpart A – General Provisions

40 CFR 60.7 – Notification and record keeping

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

40 CFR 60.8 – Performance tests

Discussion: These requirements are found in the Part 70 OP. Notice of intent to test, the applicable test methods, acceptable test method operating conditions, and the requirement for three runs are outlined in this regulation. DAQEM requirements for initial performance testing are identical to AQR Section 60.8. DAQEM also requires periodic performance testing on emission units based upon throughput or usage. More discussion is in this document under the compliance section.

40 CFR 60.11 – Compliance with standards and maintenance requirements

Discussion: Compliance with various applicable standards will be demonstrated by performance tests unless otherwise specified in the standard. The source is subject to 40

CFR 60 Subpart GG which requires fuel monitoring and sampling to meet a standard. Subpart GG requirements are addressed in the Part 70 OP. AQR Section 26 is more stringent than the federal opacity standards, setting a maximum of 20 percent opacity. Nevada Sun-Peak, LP shall operate in a manner consistent with this section of the regulation.

40 CFR 60.12 – Circumvention

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

40 CFR 60.13 – Monitoring requirements

Discussion: This section requires that CEMS meet 40 CFR 75 Appendix B and 40 CFR 60 Appendix F standards of operation, testing and performance criteria. Part 70 OP contains the CEMS conditions and citations to 40 CFR 75 Appendix B and 40 CFR 60 Appendix F. In addition, the QA plan approved for the CEMS follows the requirements outlined including span time and recording time.

Subpart GG – Standards of Performance for Stationary Gas Turbines

40 CFR 60.330 – Applicability and designation of affected facility

Discussion: Subpart GG applies to all three stationary gas turbines at this source.

40 CFR 60.332 – Standard for nitrogen oxides

Discussion: See Table VI-C-1 of this document.

40 CFR 60.333 – Standard for sulfur dioxide

Discussion: See Table VI-C-1 of this document.

40 CFR 60.334 – Monitoring of operations

Discussion: The source uses pipeline-quality natural gas. No storage tanks are located on-site. In the event that #2 diesel oil is required for operation, the fuel will be provided from another source.

40 CFR 60.335 – Test methods and procedures

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

Subpart KKKK – Standards of Performance for Stationary Combustion Turbines

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

40 CFR 64 – COMPLIANCE ASSURANCE MONITORING

40 CFR 64.2 – Applicability

Discussion: The gas turbines are exempt from the CAM Rule for all pollutants based on the exemption outlined in 40 CFR 64.2(b)(2)(11). The permit specifies a continuous compliance determination method for the NO_X and CO limitations in the form of a CEMS, required for Part 60 compliance.

40 CFR 72 – ACID RAIN PERMITS REGULATION

Subpart A – Acid Rain Program General Provisions

40 CFR 72.6 – Applicability

Discussion: Nevada Sun-Peak, LP is not subject to the requirements of the Acid Rain Program according to 40 CFR 72.6 (b)(6). Nevada Sun-Peak, LP is an independent power production facility that has, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15 percent of its total planned net output capacity and consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of its total planned net output capacity.

40 CFR 73 – ACID RAIN SULFUR DIOXIDE ALLOWANCE SYSTEM

Discussion: Nevada Sun-Peak, LP is not subject to the provisions of 40 CFR Part 72; therefore, the provisions of 40 CFR Part 73 do not apply.

40 CFR 75 – CONTINUOUS EMISSION MONITORING

Discussion: Nevada Sun-Peak, LP is not subject to the Acid Rain limitations of 40 CFR Part 72; therefore, the facility is not subject to the monitoring requirements of this regulation.

VI. COMPLIANCE

A. Compliance Certification

The Permittee shall comply with all applicable notification and reporting requirements of 40 CFR 60.7, 40 CFR 60 Subpart GG and other applicable regulations. Regardless of the date of issuance of this Part 70 Operating Permit, the schedule for the submittal of reports to the DAQEM shall be as follows:

Required Report	Applicable Period	Due Date[1]
Quarterly Report for 1st Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2nd Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3rd Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4th Calendar Quarter, Any additional annual records required.	October, November, December	January 30 each year
Annual Compliance Certification Report	12 Months	30 days after the Operating Permit issuance anniversary date
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission 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 quarterly reports
Performance Testing	As Required	Within 60 days from the end of the test

[1] Each report shall be received by DAQEM on or before the due date listed. If 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.

a. A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.
b. A schedule for submission of compliance certifications during the permit term.
c. A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

mmary

icable to Nevada Sun-Peak, LP

Title	Applicability	Applicable Test Method	Compliance Status
Definitions	Applicable – Nevada Sun-Peak, LP will comply with all applicable definitions as they apply.	Nevada Sun-Peak, LP will meet all applicable test methods should new definitions apply.	Nevada Sun-Peak, LP complies with applicable requirements.
Control Officer	Applicable – The Control Officer or his representative may enter into Nevada Sun-Peak, LP property, with or without prior notice, at any reasonable time for purpose of establishing compliance with permit regulations	Nevada Sun-Peak, LP will allow Control Officer to enter property as required.	Nevada Sun-Peak, LP complies with applicable requirements.
Ambient Air Quality Standards	Applicable – Nevada Sun-Peak, LP is a source of air pollutants.	Nevada Sun-Peak, LP demonstrated compliance in the ATC permit application with air dispersion modeling.	Nevada Sun-Peak, LP complies with applicable requirements.
General application requirements for construction of new and modified sources of air pollution	Applicable – Nevada Sun-Peak, LP applied for and the ATC certificate was issued before commencing construction.	Nevada Sun-Peak, LP received the ATC permit to construct.	Nevada Sun-Peak, LP complies with applicable requirements.
Requirements for specific air pollutants: PM_{10} emission source located in the Serious Non-attainment area	Applicable – Nevada Sun-Peak, LP is a minor source of PM_{10} emissions.	The Nevada Sun-Peak, LP stationary gas turbines meet BACT requirements as applicable for Hydrographic Basin 212. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable requirements for PM_{10}.

Title	Applicability	Applicable Test Method	Compliance Status
Requirements for specific air pollutants: minor CO emission source located in the Serious Non-attainment area.	Applicable – Nevada Sun-Peak, LP is a minor CO source with CO emission units located in Hydrographic Basin 212.	The Nevada Sun-Peak, LP CO controls meet BACT as applicable for Hydrographic Basin 212. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable control technology requirements for CO.
Requirements for specific air pollutants: minor VOC sources located in the VOC Management Area.	Applicable – Nevada Sun-Peak, LP is a minor VOC source with VOC emissions units located in Hydrographic Basin 212.	The Nevada Sun-Peak, LP VOC controls meet BACT as applicable for Hydrographic Basin 212. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable control technology requirements for VOC.
Requirements for specific air pollutants: NO_X sources located in the NO_X Management Area.	Applicable – Nevada Sun-Peak, LP has NO_X PTE > 50 TPY.	The Nevada Sun-Peak, LP NO_X controls meet BACT as applicable for Hydrographic Basin 212. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable control technology requirements for NO_X.
Requirements for specific air pollutants: SO_X sources located in the PSD area.	Applicable – Nevada Sun-Peak, LP is a minor SO_X source with SO_X emission units located in Hydrographic Basin 212.	The Nevada Sun-Peak, LP stationary gas turbines meet BACT as applicable for Hydrographic Basin 212. The Part 70 permit has relevant compliance, record keeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable control technology requirements for SO_X.
Air Quality Models	Applicable – Dispersion modeling will be performed as required for any future major modifications.	As applicable, if any future dispersion modeling is performed in response to a request for any ATC permit modifications, it will be in accordance with provisions of 40 CFR 51, Appendix W.	Nevada Sun-Peak, LP complies with applicable requirements.

Title	Applicability	Applicable Test Method	Compliance Status
Continuous Emission Monitoring Systems	Applicable – The Nevada Sun-Peak, LP has NO_x PTE > 40 TPY. NO_x and CO CEMS installed on all applicable stacks and meets provisions of 40 CFR 60 and 75.	Nevada Sun-Peak, LP submitted all required protocols/test plans per the issued ATC permit prior to CEMS certification. CEMS certification was approved by DAQEM.	Nevada Sun-Peak, LP complies with applicable requirements.
NSPS – General Provisions	Applicable – Nevada Sun-Peak, LP is an affected facility under the regulations. Sec. 14 is locally enforceable; however, the NSPS standards they reference are federally enforceable.	Applicable monitoring, recordkeeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable requirements.
NSPS – Standards of Performance for Stationary Gas Turbines	Applicable – The Nevada Sun-Peak, LP stationary gas turbines are natural gas fired units (or #2 diesel oil) with heat input greater than 10 MMBtu/hr.	All stationary gas turbines meet the applicable NO_x emission standard. When firing on natural gas, NO_x emissions shall not exceed 42 ppmv (dry, corrected to 15 percent oxygen). When firing on #2 diesel oil, NO_x emissions shall not exceed 65 ppmv (dry, corrected to 15 percent oxygen). NO_x emissions determined by EPA Method 7E.	Nevada Sun-Peak, LP complies with applicable requirements.
DAQEM Operating Permits	Applicable – Nevada Sun-Peak, LP must apply for and obtain a DAQEM operating permit prior to operation.	Nevada Sun-Peak, LP applied for and received operating permit from DAQEM prior to commercial operation.	Nevada Sun-Peak, LP complies with applicable requirements.

Title	Applicability	Applicable Test Method	Compliance Status
Permit and Technical Service Fees	Applicable – Nevada Sun-Peak, LP will be required to pay all required/applicable permit and technical service fees.	Nevada Sun-Peak, LP is required to pay all required/applicable permit and technical service fees.	Nevada Sun-Peak, LP complies with applicable requirements.
40 CFR 70 Operating Permits	Applicable – Nevada Sun-Peak, LP is a major stationary source and under Part 70 the initial Title V permit application will be submitted within 12 months of startup. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months of commencing operation of the new emission unit. Section 19 is both federally and locally enforceable.	Nevada Sun-Peak, LP submitted the initial Part 70 permit application within 12 months of startup. The renewal application was submitted within the appropriate timeframe.	Nevada Sun-Peak, LP complies with applicable requirements.
Acid Rain Permits	Not Applicable – Nevada Sun-Peak, LP is exempt from the requirements of the Acid Rain Program.	Not applicable.	Not applicable.
Acid Rain Continuous Emission Monitoring	Not Applicable – Nevada Sun-Peak, LP is exempt from acid rain regulations.	Not applicable.	Not applicable.

Title	Applicability	Applicable Test Method	Compliance Status
Upset/Breakdown, Malfunctions	Applicable – Any upset, breakdown, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to Control Officer. Section 25.1 is locally and federally enforceable.	Any upset, breakdown, emergency condition, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within 1-hour of onset of such event.	The Nevada Sun-Peak, LP currently complies with applicable requirements.
Emissions of Visible Air Contaminants	Applicable – Opacity for the any emission unit may not exceed 20 percent for more than 6 consecutive minutes.	Natural Gas: Visual emissions observations and EPA Method 9 if exceedance occurs. Diesel: Visual emissions observations and EPA Method 9.	Nevada Sun-Peak, LP complies with applicable requirements.
Fuel Burning Equipment	Applicable – The PM emission rates for all stationary gas turbines are well below those established based on Section 28 requirements.	Maximum allowable PM emission rate determined from equation in Section 28.	Nevada Sun-Peak, LP complies with applicable requirements.
Sulfur Content of Fuel Oil	Applicable – If fuel oil is used it must be low sulfur fuel with sulfur content less than 0.05 percent by weight. Section 29 is locally enforceable only.	Fuel sulfur content verification obtained from fuel oil supplier.	Nevada sun-Peak, LP complies with applicable requirements.
Prohibition of Nuisance Conditions	Applicable – No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance. Section 40 is locally enforceable only.	Nevada Sun-Peak, LP air contaminant emissions controlled by pollution control devices or good combustion and thus will not cause a nuisance.	Nevada Sun-Peak, LP complies with applicable requirements.

Title	Applicability	Applicable Test Method	Compliance Status
Fugitive Dust	Applicable – Nevada Sun-Peak, LP shall take necessary actions to abate fugitive dust from becoming airborne.	Nevada Sun-Peak, LP utilizes appropriate best practices to not allow airborne fugitive dust.	Nevada Sun-Peak, LP complies with applicable requirements.
Open Burning	Applicable – In event Nevada Sun-Peak, LP burns combustible material in any open areas, such burning activity will have been approved by Control Officer in advance. Section 42 is a locally enforceable rule only.	Nevada Sun-Peak, LP will contact the DAQEM and obtain approval in advance for applicable burning activities as identified in the rule.	Nevada Sun-Peak, LP complies with applicable requirements.
Odors in the Ambient Air	Applicable – An odor occurrence is a violation if the Control Officer is able to detect the odor twice within a period of an hour, if the odor causes a nuisance, and if the detection of odors is separated by at least 15 minutes. Section 43 is a local enforceable rule only.	Nevada Sun-Peak, LP is a predominantly natural gas-fired facility and is not expected to cause odors.	Nevada Sun-Peak, LP complies with applicable requirements.
Emission Standards for Boilers and Steam Generators Burning Fossil Fuels	Not Applicable – Nevada Sun-Peak, LP does not have any boilers or steam generators.	Not Applicable.	Not Applicable.
Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area	Applicable – Nevada Sun-Peak, LP is located in Las Vegas Valley (hydrographic area 212) and will need to meet the applicable emission control requirements at times of future modifications.	In the event Nevada Sun-Peak, LP undertakes any modification, the facility will have to apply proper control technologies and meet offset requirements as applicable.	Nevada Sun-Peak, LP complies with applicable requirements.
Emergency Procedures	Applicable – Nevada Sun-Peak, LP submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 16 Operating Permit Application.	Nevada Sun-Peak, LP submitted an emergency standby plan and received the Section 16 Operating Permit.	Nevada Sun-Peak, LP complies with applicable requirements.

r Quality Regulations Applicable to Nevada Sun-Peak, LP

Title	Applicability	Applicable Test Method	Compliance Status
Prevention of Significant Deterioration (PSD)	Applicable – Nevada Sun-Peak, LP PTE > 100 TPY and is listed as one of the 28 source categories.	BACT analysis, air quality analysis using modeling, and visibility and additional impact analysis performed for original ATC permits.	Nevada Sun-Peak, LP complies with applicable sections as required by PSD regulations.
SIP Rules	Applicable – Nevada Sun-Peak, LP is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	Nevada Sun-Peak, LP is in compliance with applicable state SIP requirements including monitoring and record keeping of emissions data.
Standards of Performance for New Stationary Sources (NSPS) – General Provisions	Applicable – Nevada Sun-Peak, LP is an affected facility under the regulations.	Applicable monitoring, recordkeeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable requirements.
Standards of Performance for New Stationary Sources (NSPS) – Stationary Gas Turbines	Applicable – The Nevada Sun-Peak, LP stationary gas turbines are natural gas- fired units with heat input greater than 10 MMBtu/hr.	Applicable monitoring, recordkeeping and reporting requirements.	Nevada Sun-Peak, LP complies with applicable requirements.
Appendix A, Method 9 or equivalent, (Opacity)	Applicable – Emissions from stacks are subject to opacity standards.	Opacity determined by EPA Method 9.	Nevada Sun-Peak, LP complies with applicable requirements.
Emission Standards for Hazardous Air Pollutants	Not Applicable – Nevada Sun-Peak, LP has a total HAPs limit less than an aggregate total of 25 TPY. No single HAP is greater than 10 TPY.	Not Applicable.	Not Applicable.
Compliance Assurance Monitoring	Not Applicable – Nevada Sun-Peak, LP has CEMS to monitor NO_x and CO emissions. NEVADA SUN-PEAK, LP is exempt from CAM regulations.	Nevada Sun-Peak, LP continuously monitors NO_x and CO missions with CEMS.	Nevada Sun-Peak, LP complies with applicable requirements.

Title	Applicability	Applicable Test Method	Compliance Status
Federally Mandated Operating Permits	Applicable – Nevada Sun-Peak, LP is a major stationary source and under Part 70 the initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission unit.	Nevada Sun-Peak, LP submitted a renewal application on May 7, 2009. Applications for new units will be submitted within 12 months of startup.	Nevada Sun-Peak, LP complies with applicable requirements.
Acid Rain Permits Regulation	Not Applicable – Nevada Sun-Peak, LP is exempt from acid rain regulations based on 40 CFR 72.6 (b)(6).	Not Applicable.	Not Applicable.
Acid Rain Sulfur Dioxide Allowance System	Not Applicable – Nevada Sun-Peak, LP is exempt from acid rain regulations.	Not Applicable.	Not Applicable.
Acid Rain CEMS	Not Applicable – Nevada Sun-Peak, LP is exempt from acid rain regulations.	Not Applicable.	Not Applicable.
Protection of Stratospheric Ozone	Applicable – Nevada Sun-Peak, LP is subject to stratospheric ozone regulations based on 40 CFR 82.4.	Applicable.	Applicable.

emonstration for Shielding Purposes

Subpart GG Streamlining Demonstration

Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
		Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
75 ppmvd NO_x @ 15% O_2 (1)	42.0 ppmvd NO_x @ 15% O_2	75 (1)	42.0	Yes	4 hour	3 hour	Yes	The permit limits are more stringent than the standard based upon both concentration and
75 ppmvd NO_x @ 15% O_2 (1)	65.0 ppmvd NO_x @ 15%	75 (1)	65.0	Yes	4 hour	3 hour	Yes	

Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
		Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
	O_2							averaging time. Compliance with the permit demonstrates compliance with the standard.
150 ppmvd (326 lbs/hr) SO_2 @ 15% O_2 (1)	45.0 lbs/hr SO_2 @ 15% O_2	326	45.0	Yes	4 hour	3 hour	Yes	
0.8% sulfur by weight (8000 ppmw)	0.5 gr/ 100 scf	280 (2)	0.5	Yes	N/A	N/A	Yes	

the following formula: STD = 0.0075 * (14.4)/Y + F; the calculated value (75 ppmvd) is the minimum possible value of the standard

corrected NO_X emission concentration (percent by volume at 15 percent oxygen and on a dry basis);
ated heat at manufacturer's rated load or actual measured heat rate based on lower heating value of fuel as measured at actual ity. The value of Y shall not exceed 14.4 kilojoules per watt hour (for the purposes of obtaining the minimum possible value of the nd
owance for fuel-bound nitrogen (N = the nitrogen content of the fuel). For the purposes of obtaining the minimum possible value of

Fuel-bound nitrogen (percent by weight)	F (NO_X percent by volume)
N ≤ .015	0
0.015 < N≤ 0.1	0.04 (N)
0.1 < N ≤ 0.25	0.004+0.0067(N–0.1)
N > 0.25	0.005

l from percent by weight to gr per 100 scf as follows: 0.8% sulfur = 56 gr sulfur per lb natural gas. AP-42 defines natural gas as rcent methane and varying amounts of ethane propane, butane, and inerts (typically nitrogen, carbon dioxide, and helium). ular weight of 18 lb/lb-mol, 1 lb natural gas = 20 scf. Lastly, 56 gr sulfur per 20 scf natural gas = 280 gr/100 scf.

onitoring for Compliance

of Monitoring for Compliance

Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
CO, NO_x, SO_2, PM_{10}, VOC, HAPs	AQR Sections 12, 19, and 55 40 CFR 60 Subpart GG	Annual and short-term emission limits.	CEMS for NO_x and CO. Stack testing for NO_X and CO by EPA Methods as outlined in Part 70 OP. Compliance for PM_{10}, SO_2, VOC and HAPs shall be based on sole use of natural gas as fuel and emission factors. Compliance for SO_2, and HAPs shall be based on sole use of low sulfur diesel fuel and emission factors. Stack testing for PM_{10} and VOC by EPA Methods when firing #2 diesel oil as outlined in Part 70 OP. Recording is required for compliance demonstration.
Opacity	AQR Section 26	Less than twenty percent opacity.	When firing natural gas: Use of natural gas as fuel, good combustion practices and visual emissions observations as well as EPA Method 9 performance testing if an opacity exceedance occurs. When firing #2 diesel oil: Visual emissions observations and EPA Method 9 performance testing as outlined in Part 70 OP.

VII. EMISSION REDUCTION CREDITS (OFFSETS)

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

VIII. ADMINISTRATIVE REQUIREMENTS

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

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

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

Factual:
Nevada Sun-Peak, LP has supplied all the necessary information for DAQEM to draft Part 70 Operating Permit conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:
DAQEM has determined that Nevada Sun-Peak, LP will continue to determine compliance through the use of CEMS, performance testing, quarterly reporting, daily recordkeeping, coupled with annual certifications of compliance. DAQEM proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to Nevada Sun-Peak, LP for a period not to exceed five years.