



**DES**  
DEPARTMENT OF ENVIRONMENT  
AND SUSTAINABILITY



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## PART 70 OPERATING PERMIT

**SOURCE ID: 01520**

Apex Generating Station  
15555 Apex Power Parkway  
Las Vegas, Nevada 89165

**ISSUED ON: January 22, 2024**

**EXPIRES ON: January 21, 2029**

**Current action: Renewal**

**Issued to:**

Southern California Public Power Authority  
1160 Nicole Court  
Glendora, California 91740

**Responsible Official:**

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**NATURE OF BUSINESS:**

SIC code 4911, "Electric Services"  
NAICS code 221112, "Fossil Fuel Electric Power Generation"

**Issued by the Clark County Department of Environment and Sustainability/Division of Air Quality in accordance with Section 12.5 of the Clark County Air Quality Regulations.**

A handwritten signature in blue ink that reads "Santosh".

Santosh Mathew, Permitting Manager

## EXECUTIVE SUMMARY

Apex Generating Station is an electricity generating facility located in the Garnet Valley (Hydrographic Area 216), which is currently designated as an attainment area for all regulated air pollutants. The source meets the AQR 12.2.2(j) definition of a categorical source for a fossil-fired steam generating plant due to the fact that the heat input ratings for the generators exceed 250 MMBtu/hr.

The source, which is owned by the Southern California Public Power Authority, is a major stationary source for PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, CO, and GHG, and a minor source for SO<sub>2</sub>, VOCs, and HAPs.

The source consists of gas-fired turbines, heat recovery steam generators with natural gas-fired duct burners, a natural gas-fired fuel gas dew point heater, a diesel-powered emergency generator, a diesel-powered fire pump, and propane-fired boiler. The source also consists of the following insignificant activities: propane and kerosene-fired heaters; aboveground storage tanks; a media blaster; solvent cleaning; gasoline and diesel-powered generators and light towers; diesel-powered welder and pressure washer; and transformers to include: isolation, excitation, step-up, step-down, and construction.

The following table summarizes the source’s potential to emit (PTE) of each regulated air pollutant from all emission units addressed by this Part 70 Operating Permit.

**Table 1: Source-wide Potential to Emit**

Pollutant	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP <sup>1</sup>	Pb	H <sub>2</sub> S	GHG
Tons/year	107.05	107.05	208.77	323.89	12.94	59.90	13.51	0	0	2,306,436.99

<sup>1</sup> A major source is defined as 10 tons for any individual HAP or 25 tons for combination of all HAPs.

DAQ received the Title V renewal application on April 10, 2023. Based on information submitted by the applicant and a technical review performed by DAQ staff, DAQ proposes the issuance of a renewed Part 70 Operating Permit.

DAQ will continue to require the permittees to estimate their GHG PTE in terms of each individual pollutant (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub> etc.) during subsequent permitting actions.

This source is subject to 40 CFR Part 60, Subparts Da and GG; 40 CFR Part 63, Subpart ZZZZ; 40 CFR Part 72, 40 CFR Part 73, and 40 CFR Part 75.

Pursuant to AQR 12.5.2, all terms and conditions in Sections 1 through 9, and all attachments to this permit, are federally enforceable unless explicitly denoted otherwise.

## TABLE OF CONTENTS

<b>1.0</b>	<b>EQUIPMENT</b> .....	<b>6</b>
1.1	Emission Units .....	6
1.2	Insignificant activities .....	6
1.3	Nonroad Engines.....	8
<b>2.0</b>	<b>CONTROLS</b> .....	<b>9</b>
2.1	Control Devices .....	9
2.2	Control Requirements .....	9
<b>3.0</b>	<b>LIMITATIONS AND STANDARDS</b> .....	<b>11</b>
3.1	Operational Limits .....	11
3.2	Emission Limits .....	12
<b>4.0</b>	<b>COMPLIANCE DEMONSTRATION REQUIREMENTS</b> .....	<b>15</b>
4.1	Monitoring .....	15
4.2	Testing.....	18
4.3	Recordkeeping .....	18
4.4	Reporting and notifications.....	21
4.5	Mitigation.....	25
<b>5.0</b>	<b>PERMIT SHIELD</b> .....	<b>26</b>
<b>6.0</b>	<b>ACID RAIN REQUIREMENTS</b> .....	<b>28</b>
<b>7.0</b>	<b>OTHER REQUIREMENTS</b> .....	<b>29</b>
<b>8.0</b>	<b>ADMINISTRATIVE REQUIREMENTS</b> .....	<b>30</b>
8.1	General.....	30
8.2	Modification, Revision, and Renewal Requirements .....	31
<b>9.0</b>	<b>ATTACHMENTS</b> .....	<b>33</b>
9.1	Applicable Regulations .....	33
9.2	Acid Rain Permit.....	35

## LIST OF TABLES

Table 1-1: List of Emission Units.....	6
Table 1-2: Summary of Insignificant Activities.....	6
Table 2-1: Summary of Add-On Control Devices.....	9
Table 3-1: Fuel Limitations for Turbine Units.....	11
Table 3-2: Emission Unit PTE, Including Startups and Shutdowns (tons per year).....	12
Table 3-3: Emission Rate Limitations, Excluding Startup and Shutdowns (pounds per hour) ....	13
Table 3-4: Emission Concentration Limitations Excluding Startup and Shutdown .....	13
Table 3-5: Applicable Subpart GG Standard, 4-Hour Rolling Average.....	13
Table 3-6: Startup, Shutdown Emissions (pounds per hour) <sup>1</sup> .....	13
Table 4-2: Required Submission Dates for Various Reports.....	24
Table 5-1: Applicable Requirements Related to Permit Shield .....	26
Table 5-2: 40 CFR 60 Streamlining Demonstration for Permit Shield .....	26
Table 9-1: Applicable Clark County AQRs.....	33
Table 9-2: Federal Standards .....	34

## Common Acronyms and Abbreviations

(These terms may be seen in the permit)

AQR	Clark County Air Quality Regulation
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	carbon monoxide
CTG	combustion Turbine Generator
DAQ	Division of Air Quality
DES	Clark County Department of Environment and Sustainability
DOM	date of manufacture
EPA	U.S. Environmental Protection Agency
EU	emission unit
FGDH	fuel gas dew point heater
GHG	greenhouse gas
H <sub>2</sub> S	hydrogen sulfide
HAP	hazardous air pollutant
HHV	higher heating value
hp	horsepower
HRSG	heat recovery steam generator
ISO	International Organization for Standardization
kW	kilowatt
LHV	lower heating value
MMBtu	British thermal units (in millions)
NAICS	North American Industry Classification System
NO <sub>x</sub>	nitrogen oxide(s)
O&M	operations and maintenance
PEMS	parametric emission monitoring system
Pb	lead
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in aerodynamic diameter
PM <sub>10</sub>	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million
ppmvd	parts per million volumetric dry
PTE	potential to emit
QA/QC	quality assurance/quality control
QAP	quality assurance plan
RATA	relative accuracy test audit
RICE	reciprocating internal combustion engine
SIC	Standard Industrial Classification
SO <sub>2</sub>	sulfur dioxide
SU/SD	startup/shutdown
VE	visible emissions
VOC	volatile organic compound

## 1.0 EQUIPMENT

### 1.1 EMISSION UNITS

The stationary source covered by this Part 70 Operating Permit (Part 70 OP) consists of the emission units and associated appurtenances summarized in Table 1-1. [ATC March 29, 2001, OP September 12, 2013, and AQR 12.5.2.3]

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

EU	Description	Rating	Manufacturer	Model No.	Serial No.
A01	Stationary Gas Turbine; natural gas-fired; MEQ = 185	185 MW at ISO	General Electric	7FA	297836
A02	Duct Burner for HRSG associated with A01; MEQ = 74	460 MMBtu/hr	Coen		40D-13761-1-000
A03	Stationary Gas Turbine; natural gas-fired; MEQ = 185	185 MW at ISO	General Electric	7FA	297837
A04	Duct Burner for HRSG associated with A03; MEQ = 74	460 MMBtu/hr	Coen		40D-13761-1-000
A05	Fuel Gas Dew Point Heater	9.67 MMBtu/hr	Total Energy Resources Inc.		618614
A06	Emergency Generator	800 kW	Caterpillar	SR4B	9EP01846
	Diesel Engine; DOM: 02/04/2002	1,180 hp		3412CDITA	1EZ02448
A07	Fire Pump		Sterling	6AEF12	565226
	Diesel Engine; DOM: 11/08/2000	270 hp	Caterpillar	3208	03Z17773
A09	Propane-Fired Boiler (rental)	9.5 MMBtu/hr (Max)	Various	Various	Various

### 1.2 INSIGNIFICANT ACTIVITIES

The units in Table 1-2 are present at this source, but are insignificant activities pursuant to AQR 12.5.2.5. The emissions from these units or activities, when added to the PTE of the source, will not make the source major for any additional pollutant.

**Table 1-2: Summary of Insignificant Activities.**

Rating	Description
0.035 MMBtu/hr	Propane-Fired Heater
0.042 MMBtu/hr	Propane-Fired Heater
0.055 MMBtu/hr	Propane-Fired Heater
0.045 MMBtu/hr	Kerosene-Fired Heater
0.055 MMBtu/hr	Kerosene-Fired Heater
0.125 MMBtu/hr	Kerosene-Fired Heater
15,228 Gallon	Aboveground Storage Tank; Ammonia
499 Gallon (each)	Aboveground Storage Tank; Propane (2)
250 Gallon	Aboveground Storage Tank; Diesel

<b>Rating</b>	<b>Description</b>
500 Gallon	Aboveground Storage Tank; Diesel
2,413 Gallon	Aboveground Storage Tank; Diesel
550 Gallon	Aboveground Storage Tank; Used Lube Oil
6,200 Gallons (each)	Aboveground Storage Tank; Combustion Turbine Generator Lube Oil (2)
10,200 Gallon	Aboveground Storage Tank; Steam Turbine Generator Lube Oil
235 Gallon	Aboveground Storage Tank; Steam Turbine Generator Hydraulic Oil
390 Gallon	Aboveground Storage Tank; Well Pump Mineral Oil
977 Gallon (each)	Isolation Transformer; Combustion Turbine Generator (2)
390 Gallon (each)	Excitation Transformer; Combustion Turbine Generator (2)
390 Gallon	Excitation Transformer; Steam Turbine Generator
450 Gallon	Construction Transformer
2,598 Gallon	Construction Transformer
322 Gallon	Step Down Transformer; Load Center
5,555 Gallon (each)	Step Down Transformer; Auxiliary Unit (2)
404 Gallon	Step Down Transformer; Well Pump
322 Gallon	Step Down transformer; Water Treatment
19,200 Gallon	Step Up Transformer; Steam Turbine Generator
23,775 Gallon (each)	Step Up Transformer; Combustion Turbine Generator (3)
322 – 652 Gallon (each)	Air Cooled Condenser Load Center Step Down Transformer(6)
25 cfm	Media Blasting Cabinet
	Solvent Cleaners (2)
12 hp (each)	Diesel-Powered Light Tower (2)
19 hp	Diesel-Powered Welder
19 hp	Diesel-Powered Mobile Pressure Washer
5.5 hp	Gasoline-Powered Portable Generator
8 hp	Gasoline-Powered Portable Generator
10 hp	Gasoline-Powered Portable Generator

### **1.3 NONROAD ENGINES**

Pursuant to Title 40, Part 1068.30 of the Code of Federal Regulations (40 CFR Part 1068.30), nonroad engines that are portable or transportable (i.e., not used on self-propelled equipment) shall not remain at a location for more than 12 consecutive months; otherwise, the engine(s) will constitute a stationary reciprocating internal combustion engine (RICE) and be subject to the applicable requirements of 40 CFR Part 63, Subpart ZZZZ; 40 CFR Part 60, Subpart IIII; and/or 40 CFR Part 60, Subpart JJJJ. Stationary RICE shall be permitted as emission units upon commencing operation at this stationary source.

Records of location changes for portable or transportable nonroad engines shall be maintained, and shall be made available to the Control Officer upon request. These records are not required for engines owned and operated by a contractor for maintenance and construction activities as long as records are maintained demonstrating that such work took place at the stationary source for periods of less than 12 consecutive months.

Nonroad engines used on self-propelled equipment do not have this 12-month limitation or the associated recordkeeping requirements.



## 2.0 CONTROLS

### 2.1 CONTROL DEVICES

1. The permittee shall operate each control device at all times any affected emission unit is operating, excluding periods of startup and shutdown, as indicated in Table 2-1. *[AQR 12.5.2.6]*

**Table 2-1: Summary of Add-On Control Devices**

Affected EU	Device Type	Pollutant
A01 – A04	Catalytic Oxidizer	CO and VOC
A01 – A04	Selective Catalyst Reduction	NO <sub>x</sub>

### 2.2 CONTROL REQUIREMENTS

#### *Stationary Gas Turbines and Duct Burners*

1. The permittee shall operate and maintain each turbine unit with SCR and dry low NO<sub>x</sub> burners (EUs: A01 through A04). *[NSR ATC Modification 2, Revision 1, Condition III-B-1 (01/12/06) and AQR 12.5.2.6]*
2. The permittee shall operate each SCR system such that NO<sub>x</sub> emissions do not exceed the limitations listed in Tables 3-3 and 3-4, excluding periods of startup and shutdown (EUs: A01 through A04). *[NSR ATC Modification 0, Revision 0, Condition III-B-3 (03/29/01)]*
3. The permittee shall operate the SCR system at all times the associated turbine units are in operation, excluding startup and shutdown (EUs: A01 through A04). *[NSR ATC Modification 0, Revision 0, Condition III-B-2 (03/29/01)]*
4. The permittee shall operate and maintain the catalytic oxidizer to control CO and VOC on each stationary gas turbine unit (EUs: A01 through A04). *[NSR ATC Modification 0, Revision 0, Condition III-B-5 (03/29/01) and AQR 12.5.2.14]*
5. The permittee shall operate the catalytic oxidizer at all times the associated turbine unit is operating, excluding periods of startup and shutdown (EUs: A01 through A04). *[NSR ATC Modification 0, Revision 0, Condition III-B-4 (03/29/01)]*
6. The permittee shall control the SO<sub>2</sub> exhaust emissions from each stationary gas turbine and duct burner by the exclusive use of pipeline quality natural gas and good combustion practices (EUs: A01 – A04). *[NSR ATC Modification 2, Revision 0, Condition III-B-8 (12/20/01)]*
7. The permittee shall control PM<sub>10</sub> exhaust emissions from each stationary gas turbine and duct burner (EUs: A01 through A04) per manufacturer’s recommendations, good operating practice and maintaining, and periodically replacing, inlet air filters preceding each turbine. *[NSR ATC Modification 2, Revision 0, Condition III-B-9 (12/20/01)]*

### Fuel Gas Dew Point Heater

8. The permittee shall combust only natural gas in the fuel gas dew point heater (EU: A05). [AQR 12.5.2.6]
9. The permittee shall operate and maintain the fuel gas dew point heater in accordance with the manufacturer's specifications (EU: A05). [AQR 12.5.2.5.6]

### Emergency Engines

10. The permittee shall operate and maintain the emergency generator (EU: A06) and fire pump (EU: A07) in accordance with the manufacturer's operations and maintenance instructions. [AQR 12.5.2.6]
11. The permittee shall maintain the emergency generator (EU: A06) and fire pump (EU: A07) as follows, unless the manufacturer's specifications are more stringent: [40 CFR 63.6603 and AQR 12.5.2.6]
  - a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - b. Inspect air cleaners every 1,000 hours of operation or annually, whichever comes first; and
  - c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

### Boiler

12. The permittee shall combust only propane gas in the rental boiler (EU: A09). [AQR 12.5.2.6]
13. The permittee shall operate and maintain the rental boiler in accordance with the manufacturer's operations and maintenance instructions (EU: A09). [AQR 12.5.2.6]

### Other

14. The permittee shall not cause, suffer, or allow any source to discharge air contaminants (or other materials) in quantities that will cause a nuisance, including excessive odors. [AQR 40 and AQR 43]

### 3.0 LIMITATIONS AND STANDARDS

#### 3.1 OPERATIONAL LIMITS

##### Stationary Gas Turbines and Duct Burners

1. The permittee shall limit operation of each turbine and duct burner to the limits specified in Table 3.1 in any consecutive 12-month period. *[NSR ATC/OP Modification 2, Revision 0, Condition III-A-1 (03/14/06)]*

**Table 3.1: Fuel Limitations for Turbine Units**

Equipment	Fuel Type	Max. Hourly MMBtu	Max. Yearly MMBtu
Each Turbine (A01 and A03)	Natural gas	1,980 (HHV)	17,344,800
Each Duct Burner (A02 and A04)	Natural gas	460 (HHV)	2,300,000

2. The permittee shall limit operation of each duct burner to 5,000 hours in any consecutive 12-month period (EUs: A02 and A04). *[NSR ATC Modification 1, Revision 0, Condition III-A-2 (07/20/01)]*
3. The permittee shall define startup as the period beginning with ignition and lasting until a turbine has reached a continuous and stable operating level, the turbine is operating in dry low-NO<sub>x</sub> mode, and the selective catalytic reduction (SCR) control device has reached optimal operating temperature. A continuous and stable operating level shall be considered as having been achieved fifteen (15) minutes following the turbine going into dry low NO<sub>x</sub> mode. Maintenance activities are also considered startup activities and are recorded by the DAHS as operating in startup mode. Shutdown means the period beginning with lowering of the electric load of a turbine below 40 percent of nameplate capacity and ending when combustion has ceased. *[NSR ATC Modification 2, Revision 5, Condition III-A-3 (12/20/01) and AQR 12.5.2.6(a)]*
4. The permittee shall limit startup and shutdown hours per turbine to 876 hours in any consecutive 12-month period. Startup and shutdown emission shall be included in the annual emissions inventory report. *[NSR ATC/OP Modification 2, Revision 2, Condition III-A-5 (03/09/07)]*

##### Emergency Engines

5. The permittee shall limit the operation of the emergency generator for testing and maintenance purposes to 100 hours/year. The permittee may operate the emergency generator up to 50 hours/year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance. Except as provided below (a–e inclusive), the emergency generator cannot be used for peak shavings or nonemergency demand response, or to generate income for a facility by supplying power to an electric grid or to otherwise supply power as part of a financial arrangement with another entity (EU: A06): *[40 CFR Part 63.6640]*

- a. The engine is dispatched by the local balancing authority and/or local transmission and distribution operator.
  - b. The dispatch is intended to mitigate local transmission and/or distribution limitations to avert potential voltage collapse or line overloads that could lead to interruption of power supply in a local area or region.
  - c. The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.
  - d. The power is provided only to the facility itself or to support the local transmission and distribution system.
  - e. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for the dispatching engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
6. The permittee shall limit the operation of the fire pump for testing and maintenance purposes to 100 hours/year. The permittee may operate the fire pump up to 50 hours/year for nonemergency situations, but those hours count towards the 100 hours provided for testing and maintenance (EU: A07). *[40 CFR Part 63.6640]*

***Boiler***

7. The permittee shall limit operation of the rental boiler to 1,000 hours in any consecutive 12-month period (EU: A09). *[AQR 12.5.2.6(a)]*

**3.2 EMISSION LIMITS**

1. The permittee shall not allow actual emissions from the individual emission units to exceed the calculated PTE listed in Table 3-2 on a consecutive 12-month total. Emission limits for each emission unit include startup and shutdown emissions, except for emission units intended only for use in emergencies. *[NSR ATC Modification 0, Revision 0, Section II-B-1 (03/29/01), NSR ATC Modification 2, Revision 2, Section II-B, (03/09/07) and AQR 12.5.2.14(a)]*

**Table 3-2: Emission Unit PTE, Including Startups and Shutdowns (tons per year)**

EU	Condition	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP	H <sub>2</sub> S	Pb
A01	17,344,800 MMBtu/8,760 hrs	53.18	53.18	98.59	159.26	6.44	29.64	6.70	0	0
A02	2,300,000 MMBtu/5,000 hrs									
A03	17,344,800 MMBtu/8,760 hrs	53.18	53.18	98.59	159.26	6.44	29.64	6.70	0	0
A04	2,300,000 MMBtu/5,000 hrs									
A05	8,760 hours	0.32	0.32	4.15	3.49	0.03	0.23	0.08	0	0
A06	500 hours	0.18	0.18	4.68	1.04	0.01	0.17	0.01	0	0
A07	500 hours	0.15	0.15	2.09	0.45	0.01	0.17	0.01	0	0
A09	1,000 hours	0.04	0.04	0.67	0.39	0.01	0.05	0.01	0	0

- The permittee shall limit the emissions, excluding startup and shutdowns, from each turbine/duct burner to the emission rates listed in Table 3-3. *[NSR ATC Modification 0, Revision 0, Section II-B-1 (03/29/01), NSR ATC Modification 2, Revision 2, Section II-B, (03/09/07) and AQR 12.5.2.14(a)]*

**Table 3-3: Emission Rate Limitations, Excluding Startup and Shutdowns (pounds per hour)**

EU	PM <sub>10</sub>	NO <sub>x</sub>	CO	VOC
A01/A02	13.00	21.40	43.40	9.90
A03/A04	13.00	21.40	43.40	9.90

- The permittee shall limit the emissions to the concentrations listed in Table 3-4, averaged per any consecutive 3-hour period, demonstrated by the CEMS described in 4.1, excluding startup or shutdown periods for each turbine/duct burner. *[NSR ATC Modification 0, Revision 0, Section II-B-1 (03/29/01)]*

**Table 3-4: Emission Concentration Limitations Excluding Startup and Shutdown**

EU	NO <sub>x</sub> @ 15% O <sub>2</sub>	CO @ 15% O <sub>2</sub>
A01/A02	3.0 ppmvd	10 ppmvd
A03/A04	3.0 ppmvd	10 ppmvd

- The permittee shall not allow the actual emissions from each emission unit to exceed the emission concentrations listed in Table 3-5 at all times. *[40 CFR 60.332]*

**Table 3-5: Applicable Subpart GG Standard, 4-Hour Rolling Average**

EU	NO <sub>x</sub> (ppmvd @ 15% O <sub>2</sub> )
A01/A02 & A03/A04	114

- The permittee shall comply with the emissions limits in Table 3-6 during periods of startup and shutdown. *[AQR 12.5.2.14(a)]*

**Table 3-6: Startup, Shutdown Emissions (pounds per hour)<sup>1</sup>**

EU	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC
A01/A02 & A03/A04	18.0	18.0	180.0	200.0	1.47	1.70

<sup>1</sup> Emissions include contribution from HRSG units.

- The permittee shall not allow the sulfur content of the natural gas fuel to exceed an average concentration of 0.5 grains per 100 scf in the turbines (EUs: A01 and A03). *[40 CFR Part 75, Appendix D]*
- The permittee shall not cause to be discharged into the atmosphere from each turbine/duct burner unit any gases which contains PM in excess of 0.03 pounds per MMBtu (EUs: A01 – A04). *[40 CFR 60.42Da and NSR ATC/OP Modification 2, Revision 1, Condition III-B-7 (03/14/06)]*
- The permittee shall not cause to be discharged into the atmosphere from each turbine/duct burner any gases which contains NO<sub>x</sub> in excess of 0.20 pounds per MMBtu (EUs: A01 – A04). *[40 CFR 60.44Da and NSR ATC/OP Modification 2, Revision 1, Condition III-B-8 (03/14/06)]*

Other

9. 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. *[NSR ATC Modification 2, Revision 0, Condition III-B-11 (12/20/01) and AQR 26.1]*

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## 4.0 COMPLIANCE DEMONSTRATION REQUIREMENTS

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### 4.1 MONITORING

#### Visible Emissions [AQR 12.5.2.6(d) & AQR 12.5.2.8]

1. The Responsible Official shall sign and adhere to the *Visible Emissions Check Guidebook* and keep a copy of the signed guide on-site at all times.
2. The permittee shall conduct a quarterly visual emissions check of the entire facility while it is in operation.
3. If no plume appears to exceed the opacity standard during the visible emissions check, the date, location, and results shall be recorded, along with the viewer's name.
4. If a plume appears to exceed the opacity standard, the permittee shall do one of the following:
  - a. Immediately correct the perceived exceedance, then record the first and last name of the person who performed the emissions check, the date the check was performed, the unit(s) observed, and the results of the observation; or
  - b. Call a certified Visible Emissions Evaluation (VEE) reader to perform a U.S. Environmental Protection Agency (EPA) Method 9 evaluation.
    - i. For sources required to have a certified reader on-site, the reader shall start Method 9 observations within 15 minutes of the initial observation. For all other sources, the reader shall start Method 9 observations within 30 minutes of the initial observation.
    - ii. If no opacity exceedance is observed, the certified VEE reader shall record the first and last name of the person who performed the VEE, the date the VEE was performed, the unit(s) evaluated, and the results. A Method 9 VEE form shall be completed for each emission unit that was initially perceived to have exceeded the opacity limit, and the record shall also indicate:
      - (1) The cause of the perceived exceedance;
      - (2) The color of the emissions; and
      - (3) Whether the emissions were light or heavy.
    - iii. If an opacity exceedance is observed, the certified VEE reader shall take immediate action to correct the exceedance. The reader shall then record the first and last name of the person performing the VEE, the date the VEE was performed, the unit(s) evaluated, and the results. A Method 9 VEE form shall be completed for each reading identified, and the record shall also indicate:

- (1) The cause of the exceedance;
  - (2) The color of the emissions;
  - (3) Whether the emissions were light or heavy;
  - (4) The duration of the emissions; and
  - (5) The corrective actions taken to resolve the exceedance.
5. Any scenario of visible emissions noncompliance can and may lead to enforcement action.

Stationary Gas Turbines and Duct Burners

6. The permittee shall install, calibrate, maintain, operate, and certify CEMS for NO<sub>x</sub>, CO, and O<sub>2</sub> on each stationary gas turbine unit (EUs: A01 through A04) in accordance with 40 CFR 75 and 40 CFR 60, Appendix F as applicable. Each CEMS shall include an automated data acquisition and handling system. Each system shall monitor and record at least the following data: *[40 CFR 75, Subpart F and NSR ATC Modification 2, Revision 0, III-E-1 (12/20/01)]*
- a. Exhaust gas concentrations (in ppm) of NO<sub>x</sub>, CO, and diluent O<sub>2</sub> including periods of start-up and shutdown;
  - b. Exhaust gas flow rate (by direct or indirect methods);
  - c. Fuel flow rate of the turbines and duct burners;
  - d. Hours of operation;
  - e. Consecutive 3-hour averages of each NO<sub>x</sub> and CO concentrations (in ppm);
  - f. Hourly and consecutive 12-month accumulated mass emissions of NO<sub>x</sub> and CO; and
  - g. Hours of downtime of the CEMS.
7. The permittee shall maintain a quality assurance plan (QAP) that contains auditing and reporting schedules, design specifications and other quality assurance requirements for the CEMS and/or PEMS systems. The CEMS shall conform to applicable provisions of 40 CFR 60.13 and 40 CFR 60, Subpart GG and 40 CFR Part 75. Audit procedures shall conform to the applicable provisions of 40 CFR 60, Appendix F and 40 CFR Part 75, Appendix B. *[40 CFR 75 and NSR ATC Modification 2, Revision 0, III-E-1 (12/20/01)]*
8. The permittee shall conduct relative accuracy test audits (RATA) of the NO<sub>x</sub>, CO and O<sub>2</sub> CEMS as required at least every four calendar quarters, except in the case where the affected facility is off-line (does not operate) in the fourth calendar quarter since the quarter of the previous RATA. In that case, the RATA shall be performed in the quarter in which the unit recommences operation. *[NSR ATC Modification 2, Revision 0, III-E-1 (12/20/01) and 40 CFR 60, Appendix F 5.1.1 and 5.1.4]*



9. Any exceedance of the hourly, or annual NO<sub>x</sub> and/or CO emissions limitations expressed in Section III as determined by the respective CEMS, the permittee shall be considered a violation of the emission limits imposed in this permit and may result in enforcement action. Compliant CEMS data, however, does not preclude the use of other credible evidence in determining or showing compliance. *[NSR ATC Modification 2, Revision 0, III-E-6 (12/20/01)]*
10. The permittee shall monitor the record fuel flow with a Continuous Monitoring System that utilizes a non-resettable fuel meter, or other method approved by the Control Officer, for each combined cycle turbine and each duct burner. *[NSR ATC Modification 2, Revision 0, III-E-8 (12/20/01)]*
11. The permittee shall verify compliance with fuel gas sulfur content in accordance with 40 CFR 60.334(h). *[40 CFR 60.334(h)]*
12. The permittee shall determine the heating value and consumption rate for natural gas for all turbine units (EUs: A01 through A04) based on conditions of one atmosphere pressure (29.92 inches of mercury) and 68° F as specified in EPA Test Method 19. *[NSR ATC Modification 0, Revision 0, Condition III-B-6 (03/29/01)]*

#### Fuel Gas Dew Point Heater

13. The permittee shall conduct burner efficiency tests in accordance with manufacturer specifications for good combustion practices. Alternative methods may be used upon approval from the Control Officer (EU: A05). *[AQR 12.5.2.6]*
14. The permittee shall perform a burner efficiency test once each calendar year (EU: A05). *[AQR 12.5.2.6]*
15. The permittee shall not have to perform a burner efficiency test if the actual hours of operation are 0. To exercise this option, the Permittee must install an hour meter and begin keeping written records before the start of the calendar year (EU: A05). *[AQR 12.5.2.6]*
16. The permittee may replace one contemporaneously required burner efficiency test with a performance test that has acceptable results (EU: A05). *[AQR 12.5.2.6]*

#### Emergency Engines

17. The permittee shall operate the diesel-powered emergency generator (EU: A06) and fire pump (EU: A07) with a nonresettable hour meter and monitor each one during testing, maintenance, and nonemergency operation. If the engine is used for an emergency, the permittee shall monitor its operation and document the nature of the emergency. *[AQR 12.5.2.8]*

#### Boiler

18. The permittee shall operate the rental boiler with a non-resettable hour meter or other devices approved in advance by the Control Officer, and monitor the hours of operation (EU: A09). *[AQR 12.5.2.6(d)]*

19. The permittee shall perform initial burner efficiency tests on boilers remaining onsite for 180 consecutive days or greater, or attain the boiler rental company's records on burner efficiency tests performed within one year prior to the initial onsite startup of the boiler. Initial burner efficiency tests shall be performed within 180 days after initial onsite startup of the boiler. (EU: A09). [AQR 12.5.2.6]
20. The permittee shall conduct burner efficiency tests on the boiler, or attain the boiler rental company's records on burner efficiency tests in accordance with the manufacturer's specifications for good combustion practices, if a test is necessary. Alternative methods may be used after prior approval from the Control Officer (EU: A09). [AQR 12.5.2.6]

## 4.2 TESTING

1. At the Control Officer's request, the permittee shall test (or have tests performed) to determine emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of those allowed by the AQRs 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 4.2]
2. Performance testing is subject to 40 CFR Part 60.8 (as amended), Subparts A, Da, and GG and *Clark County Department of Air Quality Guideline for Source Testing (9/19/2019)*. Performance testing shall be the instrument for determining subsequent compliance with the emission limitations set forth in Tables 3-3 and 3-4 of this permit. [AQR 12.5.2.8(a)]
3. The Control Officer may require additional performance testing when operating conditions appear inadequate to demonstrate compliance with the emissions and/or limitations in this permit. [AQR 12.5.2.8(a)]

## 4.3 RECORDKEEPING

1. The permittee shall keep records of all inspections, maintenance, and repairs, as required by this permit. [AQR 12.5.2.6(d) and AQR 12.5.2.8]
2. The permittee shall comply with all applicable recordkeeping requirements of 40 CFR Part 60.7; 40 CFR Part 60, Subpart Da; 40 CFR Part 60, Subpart GG; 40 CFR Part 63, Subpart ZZZZ; 40 CFR Part 72; 40 CFR Part 75; and any other applicable regulations.
3. All records, logs, etc., or copies thereof, shall be kept on-site for a minimum of five years from the date the measurement, or data was entered. [AQR 12.5.2.6(d) and AQR 12.5.2.8]
4. Records and data required by this permit to be maintained by the permittee may be audited at any time by a third party selected by the Control Officer. [AQR 4.1]
5. At a minimum, the permittee shall create and maintain the records identified in Conditions 4.3.6 and 4.3.7, all of which must be producible on-site to the Control Officer's authorized representative upon request and without prior notice during the permittee's hours of operation. [AQR 12.5.2.6(d) and AQR 12.5.2.8]

6. The permittee shall maintain the following records on site for required reporting: [AQR 12.5.2.6(d) and AQR 12.5.2.8]

Stationary Gas Turbines and Duct Burners

- a. Monthly, consecutive 12-month total hours of operation of each duct burner (EU: A02 and A04);
- b. Monthly, consecutive 12-month total quantity of natural gas consumed in each stationary gas turbine (EU: A01 and A03);
- c. Monthly, consecutive 12-month total quantity of natural gas consumed in each duct burner (EUs: A02 and A04);
- d. Hourly and consecutive 12-month heat input to each turbine (EUs: A01 and A03) and duct burner (EUs: A02 and A04);
- e. Monthly, consecutive 12-month total startup and shutdown hours;

Emergency Engines

- f. Monthly, consecutive 12-month total hours of operation of the diesel-powered emergency generator (EU: A06) and fire pump (EU: A07) for testing, maintenance, and nonemergency use;
- g. Monthly, consecutive 12-month total hours of operation of the emergency generator (EU: A06) and fire pump (EU: A07) for emergency use, including documentation justifying use during the emergency;

Fuel Gas Dewpoint Heater

- h. Monthly, consecutive 12-month total quantity of natural gas consumed (EU: A05);

Boiler

- i. Monthly, consecutive 12-month total of hours of operation of the boiler including unit specifications, start date, and duration of operation, of each rental boiler (EU: A09);

CEMS

- j. CEMS audit results or accuracy checks, corrective actions, etc., as required by 40 CFR 60, Appendix F and the CEMS QA Plan;
- k. All CEMS information required by the CEMS monitoring plan as specified in 40 CFR 75 Subpart F and Monitoring Section of this permit;
- l. Time, duration, nature and probable cause of any CEMS downtime and corrective actions taken;

### Other

- m. Deviations from permit requirements resulting in excess emissions (report as required by Section 4.4); and
- n. Deviations from permit requirements not resulting in excess emissions (report semiannually).

7. The permittee shall maintain the following records: *[AQR 12.5.2.6(d) and AQR 12.5.2.8]*

### Opacity

- a. Dates and times when visible emissions checks and observations are made, and the corrective steps taken to bring opacity into compliance.

### Stationary Gas Turbines and Duct Burners

- b. Sulfur content of natural gas as determined by Condition 4.1.11;
- c. Startup and shutdown short-term total emissions for stationary gas turbines in pounds per hour and annual emissions for all turbines in tons per year (12-month consecutive total);

### Emergency Engines

- d. Date and duration of operation of the diesel-powered emergency generator (EU: A06) and fire pump (EU: A07) for testing, maintenance, and nonemergency use;
- e. Date and duration of operation of the emergency generator (EU: A06) and fire pump (EU: A07) for emergency use, including documentation justifying use during the emergency (EU: A01);
- f. Sulfur content and cetane index or aromatic content of diesel fuel used to power the emergency generator (EU: A06) and fire pump (EU: A07), as certified by the supplier;

### Boiler

- g. Operation, including unit specifications, start date, and duration of operation, of each rental boiler (EU: A09);
- h. Burner efficiency test results, or documentation from rental company of burner efficiency test results done on the rental boiler within a consecutive 12-month period;

### CEMS

- i. hourly CEMS NO<sub>x</sub> and SCR operating data to determine the achievability of 3 ppm, three-hour average NO<sub>x</sub> limitation;
- j. hourly CEMS CO readings to determine the achievability of 10 ppm, three-hour average CO limitation;

- k. CEMS audit results or accuracy checks, corrective actions, etc., as required by 40 CFR 60, Appendix F and the CEMS QA Plan;
- l. Time, duration, nature and probable cause of any CEMS downtime and corrective actions taken;
- m. The QA plan shall contain auditing schedules, reporting schedules, and design specifications for the CEMS. The CEMS shall conform to applicable provisions of 40 CFR Part 60, Subpart GG and 40 CFR Part 75 (the QA Plan has been approved by the Control Officer);
- n. Each CEMS “out-of-control” period, as defined in 40 CFR 75, Appendix B;

Other

- o. The calendar year annual emissions for the entire source;
- p. magnitude and duration of excess emissions, notifications, monitoring system performance, malfunctions, corrective actions taken, etc., as required by 40 CFR 60.7;
- q. copies of all reports, compliance certifications, other submissions, and all records made or required under the Acid Rain Program;
- r. copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program;
- s. Certificates of representation for the designated representative and the alternative designated representative that meet all requirements of 40 CFR Part 72.24; and
- t. Summary of results of all performance testing.

#### **4.4 REPORTING AND NOTIFICATIONS**

- 1. The permittee shall certify compliance with the terms and conditions contained in this Part 70 OP, including emission limitations, standards, work practices, and the means for monitoring such compliance. [AQR 12.5.2.8(e)]
- 2. The permittee shall submit compliance certifications annually in writing to the Control Officer (4701 W. Russell Road, Suite 200, Las Vegas, NV 89118) and the Region 9 Administrator (Director, Air and Radiation Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each calendar year will be due on January 30 of the following year, and shall include the following: [AQR 12.5.2.8(e)]
  - a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. These methods and means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements described in 40 CFR Part 70.6(a)(3). If

- necessary, the permittee shall also identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information; and
- c. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in (b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance was required and in which an excursion or exceedance, as defined under 40 CFR Part 64, occurred.
3. The permittee shall report to the Control Officer any startup, shutdown, malfunction, emergency, or deviation that causes emissions of regulated air pollutants in excess of any limits set by regulations or this permit. The report shall be in two parts, as specified below: *[AQR 12.5.2.6(d)(4)(B); AQR 25.6.1]*
    - a. Within 24 hours of the time the permittee learns of the excess emissions, the permittee shall notify DAQ by phone at (702) 455-5942, by fax at (702) 383-9994, or by email at [airquality@clarkcountynv.gov](mailto:airquality@clarkcountynv.gov).
    - b. Within 72 hours of the notification required by paragraph (a) above, the permittee shall submit a detailed written report to DAQ containing the information required by AQR 25.6.3.
  4. With the semiannual monitoring report, the permittee shall report to the Control Officer all deviations from permit conditions that do not result in excess emissions, including those attributable to malfunction, startup, or shutdown. Reports shall identify the probable cause of each deviation and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*
  5. Stationary sources that emit 25 tons or more of NO<sub>x</sub> and/or emit 25 tons or more of VOCs from their emission units, insignificant activities, and exempt activities during a calendar year shall submit an annual emissions statement for both pollutants. Emissions statements must include actual annual NO<sub>x</sub> and VOC emissions from all activities, including emission units, insignificant activities, and exempt activities. Emissions statements are separate from, and in addition to, the calculated annual emissions reported each year for all regulated air pollutants (i.e., the annual emissions inventory report). *[AQR 12.9.1]*
  6. The owner or operator of any source required to obtain a permit under AQR 12 shall report to the Control Officer emissions in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health and safety or the environment as soon as possible, but no later than 12 hours after the deviation is discovered, and submit a written report within two days of the occurrence. *[AQR 25.6.2]*
  7. The permittee shall submit all compliance certifications to the U.S. Environmental Protection Agency (EPA) and to the Control Officer. *[AQR 12.5.2.8(e)(4)]*

8. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or the AQRs, shall contain a certification by a Responsible Official, with an original signature, of truth, accuracy, and completeness. This certification, and any other required under AQR 12.5, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *[AQR 12.5.2.6(l)]*
9. The permittee shall furnish to the Control Officer, in writing and within a reasonable time, any information that the Control Officer may request to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Control Officer copies of records that the permit requires keeping. The permittee may furnish records deemed confidential directly to the Administrator, along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*
10. At the Control Officer's request, the permittee shall provide any information or analyses that will disclose the nature, extent, quantity, or degree of air contaminants that are or may be discharged by the source, and the type or nature of control equipment in use. The Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to this report, the Control Officer may designate an authorized agent to make an independent study and report on the nature, extent, quantity, or degree of any air contaminants that are or may be discharged from the source. An agent so designated may examine any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.1]*
11. The permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1 and AQR 12.5.2.4]*
  - a. The annual emissions inventory must be submitted to DAQ by March 31 of each calendar year (if March 31 falls on a state or federal holiday, or on any day the office is not normally open for business, the submittal shall be due on the next regularly scheduled business day);
  - b. The calculated actual annual emissions from each emission unit shall be reported even if there was no activity, along with the total calculated actual annual emissions for the source based on the emissions calculation methodology used to establish the potential to emit (PTE) in the permit or an equivalent method approved by the Control Officer prior to submittal; and
  - c. As the first page of text, a signed certification containing the sentence: "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate, and complete." This statement shall be signed and dated by a Responsible Official of the company (a sample form is available from DAQ).
12. Stationary sources that emit 25 tons or more of nitrogen oxide (NO<sub>x</sub>) and/or emit 25 tons or more of volatile organic compounds (VOC) from their emission units, insignificant activities, and exempt activities during a calendar year shall submit an annual emissions statement for both pollutants. Emissions statements must include actual annual NO<sub>x</sub> and VOC emissions from all activities, including emission units, insignificant activities and

exempt activities. Emissions statements are separate from, and additional to, the calculated annual emissions reported each year for all regulated air pollutants (aka Emissions Inventory). [AQR 12.9.1]

13. The permittee shall submit to the Control Officer, within 15 days after commencing operation, any outstanding identification and/or description that was not previously available for new emission unit(s), as noted in this permit with “TBD.” (Use this condition if there is emission unit information in the permit that is incomplete and noted with “TBD.”)
14. The permittee shall comply with all applicable notification and reporting requirements of 40 CFR Part 60.7; 40 CFR Part 60 Subparts Da, and GG; 40 CFR Part 63 Subpart ZZZZ; 40 CFR Part 72; 40 CFR Part 73, and 40 CFR Part 75. [AQR 12.5.2.6(d)]
15. The permittee shall submit semiannual monitoring reports to DAQ. [AQR 12.5.2.6(d) and AQR 12.5.2.8]
16. The following requirements apply to semiannual reports: [AQR 12.5.2.6(d) and AQR 12.5.2.8]
  - a. The report shall include item listed in Section 4.3.6.
  - b. The report shall be based on a calendar semiannual period, which includes partial reporting periods.
  - c. The report shall be received by DAQ within 30 calendar days after the semiannual period.
17. Regardless of the date of issuance of this OP, the source shall comply with the schedule for report submissions outlined in Table 4-2. [AQR 12.5.2.6(d) and AQR 12.5.2.8]

**Table 4-2: Required Submission Dates for Various Reports**

Required Report	Applicable Period	Due Date
Semiannual report for 1 <sup>st</sup> six-month period	January, February, March, April, May, June	July 30 each year <sup>1</sup>
Semiannual report for 2 <sup>nd</sup> six-month period; any additional annual records required	July, August, September, October, November, December	January 30 each year <sup>1</sup>
Annual Compliance Certification	Calendar year	January 30 each year <sup>1</sup>
Annual Emissions Inventory Report	Calendar year	March 31 each year <sup>1</sup>
Annual Emissions Statement <sup>2</sup>	Calendar year	March 31 each year <sup>1</sup>
Notification of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emission	As required	Within 24 hours of the permittee learns of the event
Excess Emissions that Pose a Potential Imminent and Substantial Danger	As required	Within 12 hours of when permittee learns of event
Report of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emission	As required	Within 72 hours of the notification <sup>1</sup>



Required Report	Applicable Period	Due Date
Deviation Report without Excess Emissions	As required	Along with semiannual reports <sup>1</sup>
Performance Testing Protocol	As required	No less than 45 days, but no more than 90 days, before the anticipated test date <sup>1</sup>
Performance Testing Results	As required	Within 60 days of end of test <sup>1</sup>
RATA Protocol	As required	No less than 21 days, but no more than 90 days, before the anticipated test date <sup>1</sup>
RATA Results	As required	Within 60 days of end of test <sup>1</sup>

<sup>1</sup>If the due date falls on a federal or Nevada holiday, or on any day the office is not normally open for business, the submittal is due on the next regularly scheduled business day.

<sup>2</sup> Required only for stationary sources that emit 25 tons or more of nitrogen oxide (NO<sub>x</sub>) and/or emit 25 tons or more of volatile organic compounds (VOC) during a calendar year.

18. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit emission limits, applicable permit requirements, and requirements of applicable federal regulations. *[AQR 4.1]*

#### 4.5 MITIGATION

The source has no federal offset requirements. *[AQR 12.7]*

## 5.0 PERMIT SHIELD

### Permit Shield

- The source has requested a permit shield for applicable regulations in the following regulations (Table 5-1). [AQR 12.5.2.9]

**Table 5-1: Applicable Requirements Related to Permit Shield**

Citation	Title
40 CFR 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units
40 CFR 60, Subpart GG	Standards of Performance for Stationary Gas Turbines

- Compliance with the terms contained in this permit shall be deemed compliance with the applicable requirements (Table 5-2) in effect on the date of permit issuance. [AQR 12.5.2.9]

**Table 5-2: 40 CFR 60 Streamlining Demonstration for Permit Shield**

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Is Permit Limit Equal or More Stringent?	Averaging Period Comparison			Streamlining Statement for Shielding Purposes
					Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A01/A02	60.332 (GG)	114 ppmvd NO <sub>x</sub> @ 15% O <sub>2</sub>	3.0 ppmvd NO <sub>x</sub> @ 15% O <sub>2</sub>	Yes	4 hour	3 hour	Yes	The permit limits are more stringent than the standard based upon both concentration and averaging time. Compliance with the permit demonstrates compliance with the standard.
A03/A04								
A01/A02	60.333 (GG)	150 ppmvd (1,878.8 lbs/hr) <sup>1</sup> SO <sub>2</sub> @ 15% O <sub>2</sub>	1.47 lbs/hr SO <sub>2</sub> @ 15% O <sub>2</sub> (natural gas)	Yes	4 hour	3 hour	Yes	
A03/A04								
A01/A02	60.333 (GG)	0.8% Sulfur by weight (280 gr/100 scf) <sup>2</sup>	0.5 gr/100 scf	Yes	4 hour	rolling 12-month	Yes	
A03/A04								
A01/A02	60.42Da	0.03 lb PM/MMBtu (73.20 lbs/hr) <sup>3</sup>	13.00 lbs PM <sub>10</sub> /hr	Yes	30-day rolling	3 hour	Yes	
A03/A04								
A01/A02	60.42Da	20% Opacity	20% Opacity	Yes	60-minute period, excepting 6 minutes	60-minute period, excepting 6 minutes	Yes	
A03/A04								
A01/A02	60.43Da	0.20 lb SO <sub>2</sub> /MMBtu (488 SO <sub>2</sub> /hr) <sup>4</sup>	1.47 lb SO <sub>2</sub> /hr	Yes	30-day rolling	3 hour	Yes	The permit limits are more stringent than the standard based upon both concentration and averaging time.
A03/A04								

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Is Permit Limit Equal or More Stringent?	Averaging Period Comparison			Streamlining Statement for Shielding Purposes
					Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A01/A02	60.44Da	0.15 lb NO <sub>x</sub> /MMBtu (366 lb NO <sub>x</sub> /hr) <sup>5</sup>	23.0 lb NO <sub>x</sub> /hr	Yes	30-day rolling	3 hour	Yes	Compliance with the permit demonstrates compliance with the standard.
A03/A04								
A01/A02	60.44Da	1.6 lb NO <sub>x</sub> /MW-hr (296 lb NO <sub>x</sub> /hr) <sup>6</sup>	23.0 lb NO <sub>x</sub> /hr	Yes	30-day rolling	3 hour	Yes	
A03/A04								

<sup>1</sup> Converting 150 ppmvd SO<sub>2</sub> to lbs/hr:

$$EF \text{ for } SO_2 = \left(\frac{150 \text{ ppm}}{10^6}\right) \left(\frac{64.06 \text{ lb } SO_2}{\text{lb-mol}}\right) \left(\frac{\text{lb-mol}}{385 \text{ scf}}\right) \left(\frac{8740 \text{ dscf of Natural Gas}}{\text{MMBtu}}\right) \left(\frac{20.9}{20.9-15}\right) = \frac{0.77 \text{ lb } SO_2}{\text{MMBtu}}$$

$$EF \text{ for } SO_2 = \left(\frac{0.77 \text{ lb } SO_2}{\text{MMBtu}}\right) \left(\frac{2,440 \text{ MMBtu}}{\text{hr}}\right) = \frac{1,524.6 \text{ lb}}{\text{hr}}; \text{ where:}$$

(lb-mol/ 385 scf) is a constant for gas

8,740 dscf/MMBtu is a constant at standard conditions of natural gas

(20.9/20.9-15) is the percent oxygen in affluent gas stream measured on a dry basis

2,440 MMBtu/hr are the turbine and HRSG combined rating.

<sup>2</sup> Sulfur content was converted from percent by weight to grains per 100 scf as follows:

0.08% sulfur x 7,000 gr/lb = 56 gr sulfur per lb of natural gas

AP-42 defines natural gas generally more than 85 percent methane and varying amounts of ethane, propane, butane, and inerts (typically nitrogen, carbon dioxide, and helium). Assuming an average molecular weight of 18 lb/lb-mol, 1 lb of natural gas = 20 scf. Lastly, 56 grains sulfur per 20 scf of natural gas = 280 gr/100 scf.

<sup>3</sup> EUs: A01/A02 and A03/A04 have a combined rating of 2,440 MMBtu/hr:

Standard lb/hr = (0.03 lb/MMBtu)(2,440 MMBtu/hr) = 73.20 lbs/hr.

AP-42 Table 1.4-2 footnotes that all PM is assumed to be less than 1.0 micron in diameter. Therefore, the correlation between the PM standard from 60.42Da and the PM10 standard in the permit is appropriate for streamlining purposes.

<sup>4</sup> EUs: A01/A02 and A03/A04 are rated at 2,440 MMBtu/hr: Standard lb/hr = (0.20 lb/MMBtu)(2,440 MMBtu/hr) = 488 lbs/hr

<sup>5</sup> EUs: A01/A02 and A03/A04 are rated at 2,440 MMBtu/hr: Standard lb/hr = (0.15 lb/MMBtu)(2,440 MMBtu/hr) = 366 lbs/hr

<sup>6</sup> EUs: A01/A02 and A03/A04 are rated at 185 MW: Standard lb/hr = (1.6 lb/MW-hr)(185 MW) = 296 lbs/hr

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## **6.0 ACID RAIN REQUIREMENTS**

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1. In accordance with the provisions of Title IV of the Clean Air Act and 40 CFR Parts 72 through 77, an Acid Rain Permit was issued to Apex Generating Station.
2. All terms and conditions of the Acid Rain Permit are enforceable by DAQ and EPA under the Clean Air Act. *[40 CFR Part 72]*
3. The permittee shall comply with all the applicable requirements of the Acid Rain Permit application located in Attachment 9.2. *[40 CFR Part 72.30]*
4. This Acid Rain Permit incorporates the definitions of terms in 40 CFR Part 72.2.
5. This Acid Rain Permit is valid for a term of five years from the date of issuance unless a timely and complete renewal application is submitted to DAQ. *[40 CFR Part 72.69]*
6. A timely renewal application for an Acid Rain Permit is an application that is received at least six months prior to the permit expiration date. *[40 CFR Part 72.30]*
7. Emissions from this source shall not exceed any allowances that the source lawfully holds under Title IV of the Act or its regulations. *[AQR 12.5.2.6 and 40 CFR Part 70.6(a)(4)]*
8. Where an applicable requirement of the Act is more stringent than an applicable requirement of Title IV regulations, both provisions shall be incorporated into the permit and shall be enforceable. *[40 CFR Part 70.6(a)(1)(ii)]*

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## 7.0 OTHER REQUIREMENTS

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1. Any person who violates any provision of the AQRs, 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 from DAQ is guilty of a civil offense and shall pay a civil penalty levied by the Air Pollution Control Hearing Board and/or the Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1; NRS 445B.640]*
2. Any person aggrieved by an order issued pursuant to AQR 9.1 is entitled to review, as provided in Chapter 233B of the NRS. *[AQR 9.12]*
3. The permittee shall comply with the requirements of Title 40, Part 61 of the Code of Federal Regulations (40 CFR Part 61), Subpart M—the National Emission Standard for Asbestos—for all demolition and renovation projects. *[AQR 13.1(b)(8)]*
4. 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 Class I or Class II ozone-depleting substance or any nonexempt substitute refrigerant as a working fluid, unless such fluid has been approved for sale in such use by the EPA Administrator. The permittee shall keep records of all paperwork relevant to the applicable requirements of 40 CFR Part 82 on-site. *[40 CFR Part 82]*
5. A risk management plan is required for the storing, handling and use of an applicable “Highly Hazardous Chemical” pursuant to 40 CFR Part 68. The permittee shall submit revisions of the risk management plan to the appropriate authority and a copy to DAQ. *[40 CFR Part 68.150(b)(3)]*

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## 8.0 ADMINISTRATIVE REQUIREMENTS

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### 8.1 GENERAL

1. The permittee shall comply with all conditions of the Part 70 OP. Any permit noncompliance may constitute a violation of the Clark County Air Quality Regulations (AQRs), Nevada law, and the Clean Air Act, and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a 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 be unaffected and remain valid. *[AQR 12.5.2.6(f)]*
3. The permittee shall pay all permit fees pursuant to AQR 18. *[AQR 12.5.2.6(h)]*
4. This permit does not convey property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
5. The permittee agrees to allow inspection of the premises to which this permit relates by any authorized representative of the Control Officer at any time during the permittee's hours of operation without prior notice. The permittee shall not obstruct, hamper, or interfere with any such inspection. *[AQR 4.1; AQR 5.1.1; and AQR 12.5.2.8(b)]*
6. The permittee shall allow the Control Officer, upon presentation of credentials, to: *[AQR 4.1 and AQR 12.5.2.8(b)]*
  - a. Access and copy any records that must be kept under the conditions of the permit;
  - b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
  - c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and
  - d. Document alleged violations using such devices as cameras or video equipment.
7. Any permittee who fails to submit relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit the needed supplementary facts or corrected information. In addition, the permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. A Responsible Official shall certify the additional information consistent with the requirements of AQR 12.5.2.4. *[AQR 12.5.2.2]*
8. Anyone issued a permit under AQR 12.5 shall post it in a location where it is clearly visible and accessible to facility employees and DAQ representatives. *[AQR 12.5.2.6(m)]*

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

## **8.2 MODIFICATION, REVISION, AND RENEWAL REQUIREMENTS**

1. No person shall begin actual construction of a new Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an Authority to Construct (ATC) from the Control Officer. *[AQR 12.4.1.1(a)]*
2. The permit may be revised, revoked, reopened and reissued, or terminated for cause by the Control Officer. The filing of a request by the permittee for a permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, does not stay any permit condition. *[AQR 12.5.2.6(g)(3)]*
3. The permit shall be reopened under any of the following circumstances and when all applicable requirements pursuant to AQR 12.5.2.15 are met: *[AQR 12.5.2.15(a)]*
  - a. New applicable requirements become applicable to a stationary source considered “major” (per the definition in AQR 12.2, AQR 12.3, or 40 CFR Part 70.3(a)(1)) with a remaining permit term of three or more years;
  - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under the Acid Rain Program;
  - c. The Control Officer or U.S. Environmental Protection Agency (EPA) determines that the permit contains a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. The EPA Administrator or the Control Officer determines that the permit must be revised or revoked to assure compliance with applicable requirements.
4. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: *[AQR 12.5.2.10(a)]*
  - a. The permittee has submitted to the Control Officer a complete application for a permit, permit revision, or permit renewal (except a complete application need not be received before a Part 70 general permit is issued pursuant to AQR 12.5.2.20); and
  - b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of AQR 12.5.
5. The permittee shall not build, erect, install, or use any article, machine, equipment, or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission that would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR Part 60.12]*
6. 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)]*

7. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. *[AQR 12.5.2.11(b)]*
8. For purposes of permit renewal, a timely application is a complete application that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 OP until final action is taken on its application for a renewed Part 70 OP. *[AQR 12.5.2.1(a)(2)]*



## 9.0 ATTACHMENTS

### 9.1 APPLICABLE REGULATIONS

#### *Requirements Specifically Identified as Applicable*

1. NRS, Chapter 445B.
2. Applicable AQRs listed in Table 9-1.

**Table 9-1: Applicable Clark County AQRs**

Citation	Title
AQR 00	"Definitions"
AQR 04	"Control Officer"
AQR 05	"Interference with Control Officer"
AQR 08	"Persons Liable for Penalties – Punishment: Defense"
AQR 09	"Civil Penalties"
AQR 10	"Compliance Schedules"
AQR 11	"Ambient Air Quality Standards"
AQR 12.0	"Applicability and General Requirements"
AQR 12.4	"Authority to Construct Application and Permit Requirements for Part 70 Sources"
AQR 12.5	"Part 70 Operating Permit Requirements"
AQR 12.9	"Annual Emissions Inventory Requirement"
AQR 13.2(b)(1)	"Subpart A - General Provisions"
AQR 13.2(b)(82)	"Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"
AQR 14.1(b)(1)	"Subpart A – General Provisions"
AQR 14.1(b)(3)	"Standards of Performance for Electric Utility Steam Generating Plants"
AQR 14.1(b)(40)	"Standards of Performance for Stationary Gas Turbines"
AQR 18	"Permit and Technical Service Fees"
AQR 21	"Acid Rain Permits"
AQR 22	"Acid Rain Continuous Emissions Monitoring"
AQR 25	"Affirmative Defense for Excess Emissions due to Startup and Shutdown"
AQR 26	"Emission of Visible Air Contaminants"
AQR 28	"Fuel Burning Equipment"
AQR 40	"Prohibitions of Nuisance Conditions"
AQR 41	"Fugitive Dust", AQR 41.1.2 only
AQR 42	"Open Burning"
AQR 43	"Odors in the Ambient Air"
AQR 70	"Emergency Procedures"
AQR 80	"Circumvention"
AQR 94	"Permitting and Dust Control for Construction Activities"

3. Clean Air Act Amendments (42 U.S.C. § 7401, et seq.)
4. Applicable 40 CFR sections are listed in Table 9-2.

**Table 9-2: Federal Standards**

Citation	Title
40 CFR Part 52.21	"Prevention of significant deterioration of air quality"
40 CFR Part 52.1470	"Approval and Promulgation of Implementation Plans, Subpart DD—Nevada"
40 CFR Part 60, Subpart A	"General Provisions"
40 CFR Part 60, Subpart Da	"Standards of Performance for Electric Utility Steam Generating Units"
40 CFR Part 60, Subpart GG	"Standards of Performance for Stationary Gas Turbines"
40 CFR Part 63, Subpart ZZZZ	"National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"
40 CFR Part 70	"State Operating Permit Programs"
40 CFR Part 72	"Acid Rain Permits Regulation"
40 CFR Part 73	"Acid Rain Sulfur Dioxide Allowance System"
40 CFR Part 75	"Acid Rain Continuous Emissions Monitoring"
40 CFR Part 82	"Protection of Stratospheric Ozone"



Facility (Source) Name (from STEP 1) Apex Generating Station

**STEP 3**

**Permit Requirements**

**Read the standard requirements.**

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

**Monitoring Requirements**

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Facility (Source) Name (from STEP 1) Apex Generating Station

Acid Rain - Page 3

**STEP 3, Cont'd.**

**Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
  - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Facility (Source) Name (from STEP 1) Apex Generating Station

**STEP 3, Cont'd.**

**Effect on Other Authorities**

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

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**

**Certification**

**Read the certification statement, sign, and date.**

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

Name Paul Schultz	
Signature 	Date 4/6/23