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PART 70
TECHNICAL SUPPORT DOCUMENT
(STATEMENT of BASIS)

APPLICATION FOR:
Operating Permit Renewal

PREPARED BY:
Trinity Consultants
For
Nevada Power Company

Source Name: Walter M. Higgins III Generating Station
Source ID: 01550

SOURCE LOCATION:
1275 East Primm Boulevard
Primm, Nevada 89019

SIC 4911: Electric Services
NAICS Code 212112: Fossil Fuel Electric Power Generation

Application Received: October 16, 2025

TSD Date: October 22, 2026

EXECUTIVE SUMMARY

Walter M. Higgins III Generating Station is an electrical power generating station that falls under SIC Code 4911, "Electrical Services" and NAICS Code 212112, "Fossil-Fueled Electric power Generation." The facility is located in Hydrographic Area 164A (Ivanpah Valley North), which is designated as attainment for all regulated pollutants. The source is classified as a categorical source in accordance with AQR 12.2.2(j)(1): "Fossil-fueled steam electric plants of more than 250 MMBtu/hr heat input."

The source operates a two-on-one combined cycle unit that consists of two 200 MW natural gas-fired stationary gas turbines, two 700 MMBtu/hr heat recovery steam generators with natural gas-fired duct burners for supplemental firing, and a steam turbine generator. The facility also operates one natural gas-fired 40 MMBtu/hr auxiliary boiler and one 250 hp diesel-powered fire pump. All natural gas-fired equipment combusts pipeline-quality natural gas as the sole fuel source.

The source is classified as a major source of PM_{10}, $PM_{2.5}$, NOx, and CO and a minor source of SO_2, VOC, and HAP. It is also a source of greenhouse gas pollutants.

The source is subject to 40 CFR Part 60, Subparts A, Subpart Dc, IIII, and KKKK and 40 CFR Part 63, Subpart ZZZZ. By adhering to the requirements of 40 CFR Part 60, Subpart IIII, the source also meets the requirements of 40 CFR Part 63, Subpart ZZZZ.

DAQ will continue to require the permittee to estimate GHG emissions in terms of each individual pollutant (CO_2, CH_4, N_2O, SF_6 etc.) during subsequent permitting actions will include these PTEs for informational purposes.

Pursuant to AQR 12.5.2, all terms and conditions in Sections 1 through 11 of this operating permit are federally enforceable unless explicitly denoted otherwise.

Table 1 summarizes the source PTE for each regulated air pollutant for all emission units addressed by this Part 70 Operating Permit.

Table 1. Source PTE (tons per year)

Description	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAPs	GHG[1]
Part 70 OP PTE	144.91	144.91	157.97	194.06	10.44	43.51	7.22	1,553,147.38
Major Source Thresholds (Title V)	100	100	100	100	100	100	10/25[2]	-
Major Stationary Source Thresholds (PSD) (Categorical)	100	100	100	100	100	100	10/25[2]	-

[1]Expressed in units of CO_2e (metric tons).
[2]10 tons for any individual hazardous air pollutant, or 25 tons for the combination of all hazardous air pollutants.

This permitting action is based on the renewal application submitted on October 16, 2025.

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ACRONYMS AND ABBREVIATIONS

AQR	Clark County Air Quality Regulation
ATC	authority to construct
BACT	Best Available Control Technology
CEMS	continuous emissions monitoring system
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
DAQ	Division of Air Quality
DES	Clark County Department of Environment and Sustainability
EPA	U.S. Environmental Protection Agency
EU	emission unit
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
H_2S	hydrogen sulfide
hp	horsepower
MMBtu	British thermal units (in millions)
MW	megawatt
N_2O	nitrous oxide
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	nitrogen oxide(s)
NSPS	New Source Performance Standard
O&M	operations and maintenance
Pb	lead
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
ppm	parts per million
PTE	potential to emit
RACT	Reasonably Available Control Technology
RATA	relative accuracy test audit
SCR	selective catalyst reduction
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
TSD	technical support document
VOC	volatile organic compound
WHGS	Walter M. Higgins Generating Station

I. PROCESS DESCRIPTION

Walter M. Higgins III operates a two-on-one combined cycle unit that consists of two 200 MW natural gas-fired stationary gas turbines, two 700 MMBtu/hr heat recovery steam generators with natural gas-fired duct burners for supplemental firing, and a steam turbine generator. The facility also operates one natural gas-fired 40 MMBtu/hr auxiliary boiler and one 250 hp diesel-powered fire pump. All natural gas-fired equipment combusts pipeline-quality natural gas as the sole fuel source.

II. PERMITTING HISTORY

The Title V operating permit for Walter M. Higgins III generating station was last renewed on January 18, 2022, and will expire on January 17, 2027. The source submitted a renewal application within the time frame specified by AQR 12.5.2.1(a)(2). As a result, the source is covered by an application shield.

Since the last permit renewal, the following permit has been issued:

March 27, 2024 – ATC

An application was submitted to replace a 265 hp diesel-powered fire pump (EU: A06) with a 250 hp unit (EU: A07). An ATC permit was issued on October 31, 2024.

Current Permitting Action

A Part 70 renewal application was submitted on October 16, 2025. The application did not request any changes to the permitted emission units or to the annual operating limitations. The 250 hp diesel-fired fire pump (EU: A07), that was part of the ATC issued on October 31, 2024, is being incorporated into the Part 70 operating permit with this permitting action. The permittee did not request any other changes to the currently permitted emission units or emission factors. However, there is a significant reduction in the annual PTE for GHG pollutants. The calculation methodology included in the current renewal application (AP-42) differs from that used for the previous renewal application dated April 24, 2020 (40 CFR Part 98.33(c)).

Detailed explanation for PTE calculations for Turbines and duct burners (EUs: A01 – A04)

When drafting a renewal permit, the customary practice is to evaluate the PTE for every permitted emission unit to ensure the emission factors used are representative of the emission units. This proved to be a challenging task with respect to the turbines and duct burners. The annual PTE values requested in the current renewal permit date back to the operating permit that was issued on November 8, 2005. An element of confusion was introduced due to the fact that, with the exception of SO_2, the renewal application provides two emission factors for each pollutant.

A meeting with the responsible official and the environmental representative for the source was held on February 12, 2026. The focus of this meeting was to discuss both the annual PTE calculations and the discrepancy with the pound-per-hour emission rates. The permittee explained that the original PTE calculations conducted by Reliant Energy are in their possession but locating them would be laborious. The permittee subsequently responded to DAQ questions in an e-mail sent on February 25, 2026. Their unedited response is as follows:

"The source PTE incorporates the startup/shutdown (SU/SD), testing/tuning, steady-state, and duct burner emissions into an annual limit. The emissions are a combination of variable emission factors depending on how the turbine and duct burner are operating and there is no single emission factor that can be directly applied to calculate annual emissions.

In order to establish hourly emission rates, the total allowable emissions from both SU/SD and steady-state operation were calculated based on the combined emissions from the duct burners and the turbines, which is then divided by 8,760 hours of operation per year.

The emission factors for the turbines and duct burners are based on historic permitting from the 2005 application when the site was under other ownership. Additionally, NV Energy intends to continue to comply with the emission limits contained in the permit. Although it would be possible to reconstruct the original basis for the combined value, doing so would provide limited benefit, given that continuous emissions monitoring systems (CEMS) are in place and have demonstrated ongoing compliance with all applicable permit limits. If requested, NV Energy can provide operational and monitoring data to confirm compliance with the existing permitted PTE."

The TSD issued on August 17, 2006, to increase turbines from 1,754 to 2,096 MMBtu/hr, and a significant revision application submitted on June 4, 2019, to upgrade turbines from 175 to 200 MW, provided explanations that supports the permittee's current request to retain the hourly and annual PTE limitations.

2006 TSD

The source is requesting to increase the permitted maximum heat input rating of each of the Westinghouse 501FD turbines from 1,754 MMBtu/hr to 2,096 MMBtu/hr. The current short-term emissions (lbs/hr) for the turbines were estimated based on a heat input rating of 1,754 MMBtu/hr (100 percent load at 67 ºF). This constrains electricity generation from Bighorn gas turbines during the winter months, during which more heat input could be accommodated by the existing equipment due to the lower ambient temperatures (lower intake air temperature = higher intake air density = higher intake air mass flow rate for a given volume = higher fuel burning capacity = higher heat input rates). By changing the basis of estimating the short term emissions to the worst-case (100 percent load at 12 ºF) heat input rating of 2,096 MMBtu/hr, the source will have the ability to utilize the full, as-built capacity of the turbines at all ambient temperature conditions without violating the short-term emission limitations.

2019 Application

"While the Project may increase the maximum hourly heat input capability of the CCCTs across a range of temperatures and operating conditions, the units will continue to operate within their existing permitted hourly heat input limit as well as their existing permitted emission rate limits. Therefore, no changes to the permitted heat input limit or emission rate limits, neither concentration nor pounds per hour, are requested in this permit application."

Conclusion

The focus of this discussion was to identify if there is any discrepancy between the annual PTE and the short-term pound-per-hour emission rates. The previous modifications might have impacted on the facilities potential to emit slightly. However, the permittee did not request a change in PTE for the affected EUs during the previous modifications because they concluded that

the emissions from actual operations will remain below the established limits. Therefore, the existing emission limits in the current operating permit will be retained for this permitting action.

III. EMISSION UNITS

Emission Units

Table III-1 lists the emission units at this stationary source.

Table III-1: Emission Unit List

EU	Description	Rating	Manufacturer	Model No.	Serial No.	SCC
A01	Natural Gas Stationary Gas Turbine (Turbine #1)	200 MW	Westinghouse	501FD		20100201
A02	Duct Burner for HRSG associated with A01	700 MMBtu/hr				20100201
A03	Natural Gas Stationary Gas Turbine (Turbine #2)	200 MW	Westinghouse	501FD		20100201
A04	Duct Burner for HRSG associated with A03	700 MMBtu/hr				20100201
A05	Auxiliary Boiler	40 MMBtu/hr	English Boiler and Tube	30DE250	22-007	
A07	Fire Pump		Pentair	60481-20	24-2670627	20100102
	Diesel Engine, DOM: 2024	250 hp	Clarke	JU6H-UFADR8	50202093P	

Table III-2: Insignificant Activities

Description	Rating
Storage Tank; Ammonia	33,500 Gallon
Storage Tank; Diesel	500 Gallon
Maintenance Shop Activities (sandblasters, parts washers)	
Lubrication Oil Sumps and Vents	

The units in Table III-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.

IV. EMISSIONS CALCULATIONS

Applicability

Permitting applicability is determined by calculating the emissions for all proposed emission units using 8,760 hours of operation (except for emergency generators or fire pumps, which use 500 hours), any inherent controls, any inherent throughput limitations, and the emission factors provided by the manufacturer, by source test results, by EPA AP-42, or by other approved methods.

Due to the fact that Walter M. Higgins III Generating Station is a categorical source, applicability emissions include emissions from insignificant emission units and activities as well as fugitive emissions.

As shown in Tables IV-1, the source continues to be a major stationary source for PM_{10}, $PM_{2.5}$, NO_x and CO, and a minor source for SO_2, VOC, and HAP. It is also a source of GHG pollutants.

Table IV-1: Source Applicability Emissions (tons per year)

	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP	GHG[1]
Permit Applicability Thresholds	5	5	5	25	25	5	N/A	N/A
Major Source Thresholds	100	100	100	100	100	100	10/25[2]	N/A
PSD Thresholds	250	250	250	250	250	250	N/A	N/A
Applicability Emissions	146.12	146.12	3,122.68	1,906.44	10.46	43.49	7.12	1,968,138.42

[1]Expressed in units of CO_2e (metric tons)
[2]10 tons for single HAP pollutant or 25 tons for any combination of HAP pollutants

PTE

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

PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP	GHG[1]
144.91	144.91	157.97	194.06	10.44	43.51	7.22	1,553,147.38

Table IV-3. Emissions Increase Calculation and Significance Evaluation (tons per year)

	PM_{10}	$PM_{2.5}$	NO_X	CO	SO_2	VOC	HAP	GHG[1]
PTE for Current Permitting Action	144.91	144.91	157.97	194.06	10.44	43.51	7.22	1,553,147.38
PTE from Permit Issued 10/31/2024	144.91	144.91	157.97	194.06	10.56	43.51	7.21	2,218,700.00
Difference	0	0	0	0	-0.12	0	0.01	-665,552.62[2]
Total Source Emissions Increase	0	0	0	0	0	0	0.01	0
AQR 12.2.2(uu) Significance Thresholds	15	10	40	100	40	40	10	N/A
AQR 12.5.1(d) Minor NSR Significance	7.5	5	20	50	20	20	10	N/A

[1]Expressed in units of CO_2e (metric tons)
[2]This discrepancy is due to the fact the previous renewal application used emission factors from 40 CFR Part 98, whereas the application for the current permit uses AP-42 emission factors. When questioned, the permittee stated they felt AP-42 were "more appropriate for our specific equipment."

V. CONTROL TECHNOLOGY

There are no new emission units or control devices associated with this permitting action. In addition, the emission increases associated with this permitting action are below the AQR 12.2.2(uu) significant thresholds. Therefore, a BACT analysis is not required. All BACT requirements established with previous permitting actions, and identified in the proposed renewal operating permit, remain enforceable. The calculated emission increase is also below the AQR 12.5.1(d) minor NSR significance levels and therefore, a RACT analysis is not triggered.

This section contains a summary of BACT and RACT requirements established with previous permitting actions.

Turbines and Duct Burners

The permittee shall operate and maintain a selective catalytic reduction system to control NO_x emissions and an oxidation catalyst to control CO and VOC emissions on each turbine. Only pipeline-quality natural gas shall be combusted in each turbine. These controls shall be operated in accordance with manufacturer's specifications (EUs: A01–A04).

Auxiliary Boiler

The permittee shall operate and maintain the boiler in accordance with the manufacturer's specifications. Only pipeline natural gas shall be combusted in the boiler (EU: A05).

Diesel Fire Pump

The permittee shall operate and maintain each emergency diesel engine in accordance with the manufacturer's O&M manual for emissions-related components and shall only combust diesel fuel with a maximum sulfur content of 15 ppm and either a minimum cetane index of 40 or a maximum aromatic content of 35% by volume (EU: A07).

VI. OPERATIONAL LIMITS

1. The permittee shall limit the fuel combusted in the combustion turbines to 15,365,000 MMBtu per any consecutive 12-month period, based on HHV of natural gas (EUs: A01 and A03).
2. The permittee shall limit the fuel combusted in the duct burners to 2,145,000 MMBtu per any consecutive 12-month period, based on HHV of natural gas (EUs: A02 and A04).
3. The permittee shall limit the fuel combusted in the auxiliary boiler to 100,000 MMBtu per any consecutive 12-month period, based on HHV of natural gas (EU: A05).
4. The permittee shall limit the operation of the fire pump for testing and maintenance purposes to 100 hours per year. The permittee may operate the fire pump up to 50 hours per year for nonemergency situations, but those hours count toward the 100 hours provided for testing and maintenance. There are no limitations for emergency operation (EU: A07).

VII. MONITORING

There are no additional monitoring requirements associated with this permitting action. All monitoring requirements established with previous permitting actions remain enforceable. This section contains a summary of monitoring requirements established with previous permitting actions.

Visual Emission Checks

1. Plant-wide visual emissions checks shall be conducted at least quarterly.
2. A visual emissions check shall be conducted at least quarterly on the diesel-powered fire pump while in operation (EU: A07).

Combustion Turbines

3. The permittee shall comply with all applicable monitoring requirements of 40 CFR Part 60, Subpart KKKK and 40 CFR Part 75 for the combustion turbines (EUs: A01 and A03) and associated duct burners (EUs: A02 and A04).

4. The permittee shall demonstrate compliance with monitoring requirements by operating and maintaining CEMS that measures and records emissions from the exhaust stack of each combustion turbine (EUs: A01 and A03) and duct burner (EUs: A02 and A04) as follows:

    a. Exhaust gas concentrations (in ppm) of NO_X, CO, and either diluent O_2 or CO_2 for all turbine units at least once every 15 minutes;

    b. Exhaust gas flow rate (by direct or indirect methods);

    c. Fuel flow rate;

    d. Hours of operation;

    e. 3-hour rolling average of NO_X concentrations (in ppm) for Turbine Unit 3 (EU: 53301);

    f. 1-hour rolling average CO concentrations (in ppm) for Turbine Unit 3 (EU: 53301);

    g. 1-hour rolling averages of each NO_X and CO concentrations (in ppm) for Turbine Unit 4 (EU: A09);

    h. 3-hour rolling averages of each NO_X and CO concentrations (in ppm) for Turbine Units 5 and 6 (EUs: A01 and A02) and their associated duct burners (EUs: A03 and A04);

    i. Hourly and consecutive 12-month period accumulated mass emissions (in pounds) of NO_X and CO (EUs: A01 – A04, 53310, and A09); and

    j. Hours of downtime of the CEMS.

5. An annual RATA is required for each CEMS unit to ensure the system is operating properly.

6. The permittee shall verify compliance with fuel gas sulfur content in accordance with 40 CFR 60.334(h) except as provided in paragraph (h)(3).

Auxiliary Boiler

7. The permittee shall monitor the monthly fuel usage of the auxiliary boiler (EU: A05).

8. The permittee shall perform a burner efficiency test twice each calendar year, at least five months apart but no more than seven (EU: A05).

Diesel Engine

9. The permittee shall monitor the sulfur content, and cetane index or aromatic content of the fuel burned in the fire pump by retaining a copy of vendor fuel specifications (EU: A07).

10. The permittee shall operate the fire pump with a nonresettable hour meter and monitor the duration of operation for testing, maintenance, and nonemergency operation, and separately for emergencies (EU: A07).

VIII. PERFORMANCE TESTING

Combustion Turbines

The permittee has elected to continue to use its NO_x-diluent CEMS under 40 CFR Part 46.4345. The permittee fulfilled the initial performance test requirements, following the completion of the combustion turbine upgrade project, on September 5, 2020, and January 5, 2021. Testing was conducted in accordance with 40 CFR Part 60.8 using the RATA alternative method. As a result, there are no annual testing requirements for the two combustion turbines (EUs: A01 and A03). 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.

Auxiliary Boiler

The permittee shall conduct performance tests on the auxiliary boiler for NO_X, CO, and stack gas parameters in accordance with the test methods summarized in Table VIII-1 once every five years and within the same calendar quarter of the last successful performance test (EU: A05).

Table VIII-1: Performance Testing Requirements for Auxiliary Boiler

Test Point	Pollutant	Method
Boiler Exhaust Outlet Stack	NO_x	EPA Method 7E
Boiler Exhaust Outlet Stack	CO	EPA Method 10 analyzer
Stack Gas Parameters	—	EPA Methods 1, 2, 3A, and 4[1]

[1]Method 4 is not required if the source uses Method 19 to calculate exhaust flow rate with an F factor derived from a site-specific fuel sample test.

IX. REVIEW OF APPLICABLE REGULATIONS

A. LOCAL REGULATORY REQUIREMENTS

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

1. Chapter 445 of the Nevada Revised Statutes, Sections 401 through 601;

2. Portions of the AQRs included in the Nevada State Implementation Plan (SIP). SIP requirements are federally enforceable. All requirements in OPs issued by DAQ are federally enforceable because these are issued under AQR sections included in the Nevada SIP; and

3. Portions of the AQR's not included in the Nevada SIP. These locally applicable requirements are locally enforceable only.

Chapter 445B of the Nevada Revised Statutes and the 1990 Clean Air Act Amendments establish the general authority for the AQRs.

EPA issued final approval of DAQ's Part 70 (Title V) program on November 30, 2001 (vol. 66, p. 63188 of the *Federal Register*). AQR 19, "Part 70 Operating Permits" [amended 07/01/04], details the program. On September 20, 2010, Clark County submitted a revision to EPA (AQR 12.5) that is still awaiting approval. These regulations are available on DAQ's website at: http://www.clarkcountynv.gov/depts/AirQuality/Pages/Rules_CurrentRulesandRegulations.aspx.

The AQRs contain sections that are federally enforceable and sections that are locally enforceable only. Locally enforceable rules have not been approved by EPA for inclusion in the Nevada SIP. Requirements and conditions in this Part 70 OP related only to non-SIP rules are notated as locally enforceable only.

Table IX-1: Clark County AQRs and Nevada State Implementation Plan

Applicable AQR Title	Applicable Subsection	SIP	Affected EU
00: “Definitions”	Applicable definitions	Yes	Entire source
02: “State Implementation Plan”	Applicable definitions	Yes	Entire source
04: “Control Officer”	All subsections	Yes	Entire source
05: “Interference with Control Officer”	All subsections	Yes	Entire source
06: “Injunctive Relief”	All subsections	Yes	Entire source
08: “Persons Liable for Penalties - Punishment: Defense”	All subsections	Yes	Entire source
09: “Civil Penalties”	All subsections	Yes	Entire source
12.5: “Part 70 Operating Permit Requirements”	Applicable subsections	Yes	Entire source
12.6: “Confidentiality”	All subsections	Yes	Entire source
12.7: “Emission Reduction Credits”	All subsections	Yes	Entire source
12.9: “Annual Emission Inventory Requirement”	All subsections	Yes	Entire source
12.10: “Continuous Monitoring Requirements for Stationary Sources”	Applicable subsections	Yes	Entire source
12.12: “Transfer of Permit”	All subsections	Yes	Entire source
12.13: “Posting of Permit”	All subsections	Yes	Entire source
13: “National Emission Standards for Hazardous Air Pollutants”	13.2(b)(1): “Subpart A - General Provisions”	No	Entire source
	13.2(b)(82): “Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines”		Diesel engine (EU: A07)
14: “New Source Performance Standards”	14.1(b)1: “General Provisions”	No	Entire Source
	14.1(b)(82): “Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”		Diesel Engine (EU: A07)
	14.1(b)(84): “Subpart KKKK – Standards of Performance for Stationary Combustion Turbines”		Combustion Turbines (EUs: A01 and A03)
18: “Permit and Technical Service Fees”	18.1: “Operating Permit Issuance Fees”	Yes	Entire source
	18.2: Annual Emissions Unit and Annual Permit Renewal Fees”		
	18.4: “NSR Application Review Fee”		
	18.5: “Part 70 Application Review Fee”		
	18.6: “Annual Emission Inventory and Emission Fee”		
	18.16: “Billing Procedures”		

Applicable AQR Title	Applicable Subsection	SIP	Affected EU
21: "Acid Rain Permits"	All subsections	No	Entire source
22: "Acid Rain Continuous Emissions Monitoring"	All subsections	No	Entire source
25: "Affirmative Defense for Excess Emissions due to Malfunctions, Startup, and Shutdown"	All subsections	No	Entire source
26: "Emission of Visible Air Contaminants"	AQR 26.1: "Opacity Limits" (≤ 20% for 3 min in 60-min period)	Yes	Entire source
28: "Fuel Burning Equipment"	Emission limitations for PM	Yes	Entire source
40: "Prohibitions of Nuisance Conditions"	40.1	No	Entire source
41: "Fugitive Dust"	41.1.2	Yes	Entire source
42: "Open Burning"	42.2	No	Entire source
43: "Odors in the Ambient Air"	43.1	No	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

B. APPLICABLE FEDERAL REGULATIONS

DAQ has determined that the following federal regulations are applicable:

1. Clean Air Act, as amended (authority: 42 U.S.C. § 7401, et seq.); and

2. Title 40 of the Code of Federal Regulations (CFR).

40 CFR PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

40 CFR Part 52.21 Prevention of significant deterioration of air quality.

Discussion: Hydrographic Area 164A (Ivanpah Valley North) is designated as attainment for all criteria pollutants. Walter M. Higgins III Generating Station is subject to this regulation because at least one criteria pollutant exceeds the 250-tpy major source threshold.

40 CFR PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart A—General Provisions

40 CFR Part 60.7 Notification and record keeping.

Discussion: This regulation requires the source to notify DAQ of modifications, opacity testing, records of malfunctions of process equipment and/or continuous monitoring device(s), continuous emissions monitoring system data, and performance test data. DAQ requires sources to maintain records for five years, a more stringent requirement than the two years required by 40 CFR Part 60.7. These requirements are found in the Part 70 OP.

40 CFR Part 60.8 Performance tests.

Discussion: This regulation outlines notice of intent to test, applicable test methods, acceptable test method operating conditions, and the requirement for three test runs. DAQ requirements for initial performance testing are identical to this regulation. The source has completed all initial performance testing. There are no requirements for subsequent testing due to the fact that the permittee operates CEMS. However, the control officer reserves the right to require performance testing when operating conditions appear inadequate to demonstrate compliance with the emissions and/or limitations in this permit.

40 CFR Part 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 Part 60, Subparts IIII and KKKK. Compliance requirements for these standards are discussed in the corresponding sections.

40 CFR Part 60.12 Circumvention.

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

40 CFR Part 60.13: Monitoring requirements.

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

Subpart Da – Standards of Performance for Electric Utility Steam Generating Units

60.40a Applicability and designation of affected facility.

(a) Except as specified in paragraph (e) of the subpart, the affected facility to which this subpart applies is each electric utility steam generating unit:

(1) That is capable of combusting more than 73 megawatts (MW) (250 million British thermal units per hour (MMBtu/hr)) heat input of fossil fuel (either alone or in combination with any other fuel); and

(2) For which construction, modification, or reconstruction is commenced after September 18, 1978.

Discussion: As per Paragraph (e) of subpart, Affected facilities (i.e. heat recovery steam generators used with duct burners) associated with a stationary combustion turbine that are capable of combusting more than 73 MW (250 MMBtu/hr) heat input of fossil fuel are subject to this subpart except in cases when the affected facility (i.e. heat recovery steam generator) meets the applicability requirements of and is subject to subpart KKKK of this part.

Therefore, HRSGs (EUs: A02 and A04) are not subject to this Subpart.

Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

40 CFR Part 60.40c Applicability.

Discussion: This section defines the types of units subject to this subpart (steam generators with a heat input rating between 10 – 100 MMBtu/hr) and dates of applicability (units constructed or reconstructed after June 9, 1989). Initial applicability includes auxiliary boiler, EU: A05.

The auxiliary boiler (EU: A05) is subject to the federal NSPS subpart Dc regulations. The Facility will continue to adhere to applicable, monitoring, testing, recordkeeping, and reporting requirements.

40 CFR §60.42c: Standard for Sulfur Dioxide

Discussion: This section does not pertain to boilers that exclusively fire natural gas.

40 CFR §60.43c: Standard for Particulate Matter

Discussion: This section does not pertain to boilers that exclusively fire natural gas.

40 CFR §60.48c: Reporting and Recordkeeping Requirements

Discussion: This section defines the types of data that must be collected by the permittee and the time period the data must be retained. It also addresses the information required by the reports and timeframes for reporting.

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

40 CFR Part 60.4200 Applicability.

Discussion: The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) with a displacement less than 30 liters per cylinder where the model year is 2007 or later, for engines that are not fire pumps, and July 1, 2006, for ICE certified by National Fire Protection Association as fire pump engines. This subpart applies to the diesel-powered fire pump (EU: A07).

40 CFR Part 60.4205 Emission standards for emergency stationary CI internal combustion engines.

Discussion: This section defines the emission standards that owners and operators must meet based on horsepower rating and year of manufacture. This subpart applies to the diesel-powered fire pump (EU: A07).

40 CFR Part 60.4207 Fuel requirements for stationary CI internal combustion engines.

Discussion: This section states that, beginning on October 1, 2010, such owners and operators must use diesel fuel that meets the requirements of 40 CFR 80.510(b).

40 CFR Part 60.4208 Deadline for importing or installing stationary CI ICE produced in previous model years.

Discussion: This section defines the dates after which owners and operators may no longer install compression ignition engines that do not meet applicable emission standards.

40 CFR Part 60.4211 Compliance requirements for owners or operators of stationary CI internal combustion engines.

Discussion: This section defines acceptable methods that owners and operators must employ to maintain compliance with applicable emission standards.

40 CFR Part 60.4214 Notification, reporting, and recordkeeping requirements for owners or operators of a stationary CI internal combustion engines.

Discussion: This section defines the types of records that owners and operators must maintain and how they must be submitted.

Subpart KKKK—Standards of Performance for Stationary Combustion Turbines

40 CFR Part 60.4300 Purpose of Subpart KKKK

Discussion: This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.

40 CFR Part 60.4305 Subpart KKKK Applicability

Discussion: This subpart is applicable to turbines with a heat input at peak loads equal to or greater than 10 MMBtu per hour which commenced construction, modification, or reconstruction after February 18, 2005. Turbine units 5 and 6 (EUs: A01 and A02) were modified in March, 2023.

40 CFR Part 60.4315 Regulated Pollutants Regulated Under Subpart KKKK

Discussion: The pollutants regulated by this subpart are nitrogen oxide (NO_X) and sulfur dioxide (SO_2).

40 CFR Part 60.4320 NOx Emission Standards

Discussion: For turbines with heat input ratings greater than 850 MMBtu/hr, emissions of NO_X are limited to 15 ppmvd for turbine loads greater than 75% of peak load and 96 ppmvd for turbine loads less than 75% of peak load.

40 CFR Part 60.4330 SO_2 Emission Standards

Discussion: Stack emissions from turbines discharged into the atmosphere shall not contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output.

Fuel used for combustion in the turbines shall not have potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.

40 CFR Part 60.4333 General Requirements for Compliance

Discussion: The permittee must operate and maintain each stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. The permittee shall develop methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected combustion turbines, and provide information satisfactory to the Control Officer.

40 CFR Part 60.4345 Demonstrating Compliance with NOx Standards using CEMS

Discussion: An NO_X diluent CEMS that is installed and certified according to appendix A of 40 CFR Part 75 is acceptable for use under this subpart. During each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. RATA tests of the CEMS shall be performed as outlined in §75.20.

40 CFR Part 60.4360 Determining Sulfur Content of the Combustion Fuel

Discussion: Test methods for gaseous fuels include ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or GPA 2140, 2261, or 2377.

40 CFR Part 60.4365 Exemptions from Monitoring Sulfur Content of the Combustion Fuel

Discussion: The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. The permittee must maintain records of valid purchase contracts, tariff sheets or transportation contracts for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less.

40 CFR Part 60.4375 Reporting Requirements

Discussion: For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. These requirements are included in the Part 70 operating permit.

Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units

40 CFR Part 60.5508 Purpose of Subpart TTTT

Discussion: This subpart establishes emission standards and compliance schedules for the control of greenhouse gas emissions from a steam generating unit or an integrated gasification combined cycle facility that commences construction after January 8, 2014, commences reconstruction after June 18, 2014, or commences modification after January 8, 2014, but on or before May 23, 2023.

The two turbines (EUs: A01 and A03) were modified after June 18, 2014, via the 2019/2020 turbine upgrades project. Pursuant to 40 CFR 60.5509(b)(7), a source is not subject to the rule if the hourly increase for CO_2 emissions is less than 10%. The maximum hourly CO_2 emission rate was not affected by the project upgrade. Therefore, the source is not subject to this subpart.

40 CFR PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 63.6580 Purpose of Subpart ZZZZ.

Discussion: Subpart ZZZZ establishes national emission limitations and operating limitations for HAPs emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with emission and operating limitations.

40 CFR Part 63.6585 Applicability.

Discussion: The provisions of this subpart are applicable to owners and operators of stationary reciprocating internal combustion engines at major or area sources of HAP. The permittee operates two emergency generators (EU: A07) that are subject to this regulation.

40 CFR Part 63.6590 What this subpart covers.

Discussion: All existing, new, or reconstructed stationary RICE are subject to this subpart (EU: A07).

40 CFR Part 63.6595 Compliance Date.

Discussion: This subpart establishes May 3, 2013, as the date to comply with all applicable requirements.

40 CFR Part 63.6603 Emission limitations, operating limitations, and other requirements for existing stationary RICE located at an area source of HAP emissions.

Discussion: This section defines inspection and maintenance requirements based on engine horsepower ratings.

40 CFR Part 63.6640 Continuous compliance requirements.

Discussion: This section defines acceptable methods for demonstrating continuous compliance with emission limitations, operating limitations, and other requirements.

40 CFR Part 63.6655 Recordkeeping Requirements.

Discussion: This section defines the type of records that must be kept to verify compliance.

40 CFR Part 63.6660 Record Retention Requirements.

Discussion: All records must be maintained in a suitable form and must be readily accessible, in hard copy or electronic form, for a minimum of five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

40 CFR PART 64—COMPLIANCE ASSURANCE MONITORING

40 CFR Part 64.2 Applicability.

Discussion: The requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 permit if the unit satisfies all of the following criteria: (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant; (2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and (3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. The following determination provides rational for the exemption of Walter M. Higgins III Generating Station from the requirements of Part 64.

The two combustion turbines (EUs: A01 and A03) have a pre-control potential to emit greater than 100 tons per year. As a result, they do meet the criteria of 40 CFR 64.2(a). The turbines are regulated by 40 CFR Part 60, Subpart KKKK which imposes NOx and SO_2 emission limits on combustion turbines with a heat input rating greater than 10 MMBtu/hr. As a result, the turbines are subject to an emission limitation proposed by the Administrator after November 15, 1990, pursuant to Section 111 or 112 of the Clean Air Act. Therefore, the units are exempt from CAM requirements. Additionally, the turbines are monitored with CEMS, which exempt them from CAM requirements per 40 CFR 64.2(b)(vi).

40 CFR PART 72—ACID RAIN PERMIT REGULATIONS

Subpart A—Acid Rain Program General Provisions

40 CFR Part 72.6: Applicability.

Discussion: Walter M. Higgins III generating station gas turbines are defined as utility units in the definitions for 40 CFR Part 72; therefore, the provisions of this regulation apply.

40 CFR Part 72.9: Standard Requirements.

Discussion: Walter M. Higgins III generating station has applied for all of the proper permits under this regulation.

Subpart B—Designated Representative

Discussion: Walter M. Higgins III generating station has a Certificate of Representation for Designated Representative on file. They have fulfilled all requirements under this subpart.

Subpart C—Acid Rain Permit Applications

Discussion: Walter M. Higgins III generating station has applied for an acid rain permit.

Subpart D—Acid Rain Compliance Plan and Compliance Options

Discussion: This subpart discusses the individual requirements necessary for a complete compliance plan. A compliance plan exists for each combustion turbine.

Subpart E—Acid Rain Permit Contents

Discussion: Walter M. Higgins III generating station has applied for an acid rain permit, and it will contain all information to demonstrate compliance with this subpart.

40 CFR PART 73—SULFUR DIOXIDE ALLOWANCE SYSTEM

40 CFR Part 73.2 Applicability.

Discussion: Walter M. Higgins III generating station is an affected source pursuant to 40 CFR Part 72.6 of this chapter because gas turbines fit the definition of utility units; therefore, this regulation shall apply.

Subpart B—Allowance Allocations

Discussion: Walter M. Higgins III generating station is listed on the Phase II table. However, no allowance amount is listed in the table, so it will not have an initial allocation per 40 CFR Part 73.10.

Subpart C—Allowance Tracking System

Discussion: Walter M. Higgins III generating station shall follow all guidelines and instructions presented in this subpart while maintaining its allowance account.

Subpart D—Allowance Transfers

Discussion: When an allowance transfer is necessary, Walter M. Higgins III generating station shall follow all procedures in this subpart.

Subpart E—Auctions, Direct Sales, and Independent Power Producers Written Guarantee

Discussion: This subpart outlines the auction process for allowance credits.

Subpart F—Energy Conservation and Renewable Energy Reserve

Discussion: There are no qualified conservation measures or renewable energy generation processes at this source; therefore, this subpart does not apply.

40 CFR PART 75—CONTINUOUS EMISSIONS MONITORING

40 CFR Part 75.2 Applicability.

Discussion: Walter M. Higgins III generating station is subject to the acid rain emission limitations of 40 CFR Part 72; therefore, the source is subject to the monitoring requirements of this regulation. Each turbine unit has been equipped with a NO_X and CO CEMS, diluent oxygen monitor, and a fuel flow monitor. The data from the CEMS is used to provide quarterly acid rain reports to both EPA and DAQ.

X. COMPLIANCE SUMMARY

Table X-1: AQR Compliance Summary

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR 0	Definitions	Applicable. WHGS will comply with all applicable definitions as they apply.	WHGS will meet all applicable test methods if new definitions apply.	WHGS complies with applicable requirements.
AQR 4	Control Officer	Applicable. The Control Officer or representative may enter into WHGS property, with or without prior notice, at any reasonable time to establish compliance.	WHGS will allow the Control Officer to enter its property as required.	WHGS complies with applicable requirements.
AQR 5	Interference with Control Officer	Applicable. WHGS shall not hinder, obstruct, delay, resist, or interfere with the Control Officer.	WHGS will allow Control Officer to operate as needed.	WHGS complies with applicable requirements.
AQR 8	Persons Liable for Penalties	Applicable. WHGS and employees will be individually and collectively liable to any penalty or punishment from DAQ	WHGS will adhere to the rules stipulated in applicable AQR.	WHGS complies with applicable requirements.
AQR 9	Civil Penalties	Applicable. This rule stipulates penalties for AQR violations.	WHGS will adhere to the rules stipulated in applicable AQR.	WHGS complies with applicable requirements.
AQR 12.2	Permit Requirements for Major Sources in Attainment Areas (PSD)	Applicable. WHGS is a major source of PM_{10}, $PM_{2.5}$, NO_X, and CO..	WHGS complies with the applicable regulations and requirements of 40 CFR 52.21. Turbines and associated duct burners are controlled with SCR and oxidation catalyst devices.	WHGS complies with applicable requirements.
AQR 12.4	ATC application and Permit Requirements for Part 70 Sources	Applicable. The owner or operator of an existing or new Part 70 source shall obtain an Authority to Construct Permit from the Control Officer before beginning actual construction.	WHGS applied for, and received, ATC permits from DAQ.	WHGS complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR 12.5	Part 70 Operating Permit Requirements	Applicable. WHGS is a major stationary source, and the initial Title V permit application was submitted as required by 40 CFR 70. Renewals are due 6–18 months before expiration. Revisions will be submitted within 12 months of starting operation of any new EU.	WHGS shall submit renewal applications between 6 and 18 months before permit expiration, and revision applications within 12 months of starting operation of any new EU.	WHGS complies with applicable requirements.
AQR 12.9	Annual Emissions Inventory	Applicable. A source that emits more than 25 tons of NOx or VOC shall complete and submit an annual emissions inventory.	Annual emission inventories shall be submitted by March 31 each year.	WHGS complies with applicable requirements.
AQR 12.10	Continuous Monitoring Requirements	Applicable. Any owner or operator of a stationary source listed in 40 CFR 51, Appendix P, Sections 1.1.1 through 1.1.4 shall install, calibrate, operate, and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified in Appendix P, Sections 1.1.1 through 1.1.4, for each applicable source category.	WHGS submitted all required protocols/test plans per the issued ATC permit prior to CEMS certification. CEMS certification was approved by DAQ.	WHGS complies with applicable requirements.
AQR 13.2(b)(82)	Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Applicable. The fire pump identified as EU: A07 is subject to this AQR.	Applicable monitoring, recordkeeping & reporting requirements.	WHGS complies with applicable requirements.
AQR 14.1(b)(82)	Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Applicable. The fire pump identified as EU: A07 is subject to this AQR.	Applicable monitoring, recordkeeping & reporting requirements.	WHGS complies with applicable requirements.
AQR 14.1(b)(84)	Subpart KKKK – Standards of Performance for Stationary Combustion Turbines	Applicable – The turbines were modified after 02/18/2005	WHGS shall continue to demonstrate compliance using CEMS, EPA approved testing methods, and combustion of low sulfur pipeline natural gas.	WHGS complies with applicable requirements.
AQR 18	Permit and Technical Service Fees	Applicable. Required permit and technical service fees.	WHGS is required to pay all required & applicable permit and technical service fees.	WHGS complies with applicable requirements.
AQR 21	Acid Rain Permits	Applicable. WHGS operates generators with capacities greater than 25 MW constructed after 11/15/1990.	WHGS submitted the required acid rain permit forms.	WHGS complies with applicable requirements.
AQR 22	Acid Rain Continuous Emission Monitoring	Applicable. Standards for the monitoring, recordkeeping, and reporting of sulfur dioxide, nitrogen oxides and carbon dioxide emissions and Opacity	WHGS submitted the required protocols/test plans.	WHGS complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
		data from Affected Units under the Acid Rain Program of the Clean Air Act.		
AQR 25	Affirmative Defense for Excess Emissions due to Malfunctions, Startup, and Shutdown	Applicable. Any upset, break-down, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to the Control Officer. 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 24 hours of the time the owner learns of the emissions.	WHGS complies with applicable requirements.
AQR 26	Emission of Visible Air Contaminants	Applicable. Opacity for the combustion units shall not exceed 20% for more than 3 min. in any 60-min. period.	Compliance determined by EPA Method 9.	WHGS complies with applicable requirements.
AQR 28	Fuel Burning Equipment	Applicable. The PM emission rate for the fuel burning equipment is below AQR 28 requirements.	Maximum allowable PM emission rate determined from equation in AQR 28.2.2.	WHGS complies with applicable requirements.
AQR 40	Prohibitions of Nuisance Conditions	Applicable. No person shall cause or allow any source to discharge air contaminants (or other material) in quantities that will cause a nuisance. Locally enforceable only.	WHGS air contaminant emissions are controlled by pollution control devices or good combustion in order to not cause a nuisance.	WHGS complies with applicable requirements.
AQR 41	Fugitive Dust	Applicable. WHGS shall take necessary actions to abate fugitive dust from becoming airborne.	WHGS utilizes appropriate best practices to not allow airborne fugitive dust.	WHGS complies with applicable requirements.
AQR 42	Open Burning	Applicable. If WHGS burns combustible material in open areas, the Control Officer will approve it in advance. Locally enforceable rule only.	WHGS will contact DAQ and obtain advance approval for burning activities identified in AQR 42.	WHGS complies with applicable requirements.
AQR 43	Odors in the Ambient Air	Applicable. An odor occurrence is a violation if the Control Officer is able to detect the odor twice within an hour, if the odor causes a nuisance, and if odor detection is separated by at least 15 minutes. Locally enforceable rule only.	WHGS is not expected to cause odors.	WHGS complies with applicable requirements.
AQR 70.4	Emergency Procedures	Applicable		WHGS complies with applicable requirements.
AQR 80	Circumvention	Applicable. WHGS shall not build, erect, install or use any article, machine, equipment or other contrivance which conceals an emission which would otherwise constitute a violation of these Regulations.	WHGS will disclose all emissions as required by state and federal regulations.	WHGS complies with applicable requirements.
AQR 94	Permitting and Dust Control for Construction Activities.	Applicable. Stationary sources shall apply for a dust control permit in the event of engaging in a construction activity greater than 0.25 acre.	WHGS shall apply for a dust control permit in the event of engaging in a construction activity greater than 0.25 acre.	WHGS complies with applicable requirements.

Table X-2: Applicable Federal Air Quality Regulations

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR Part 52.21	Prevention of Significant Deterioration of Air Quality	Applicable. This section applies to the construction of any new major stationary source or any project at an existing major stationary source in an area designated as attainment for regulated pollutants. H.A. 164A is classified as attainment for all regulated pollutants.	WHGS shall continue to meet BACT and other impact analysis requirements by monitoring & keeping records of emission data.	WHGS complies with applicable SIP requirements.
40 CFR Part 52.1470	Approval and Promulgation of Implementation Plans: Subpart DD—Nevada [SIP rules]	Applicable. WHGS is a Title V source, so SIP rules apply.	WHGS shall continue to comply with the federally enforceable monitoring, testing, recordkeeping, and reporting requirements stipulated in the SIP.	WHGS complies with applicable requirements.
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources – General Provisions	Applicable. WHGS is an affected facility under NSPS Subpart KKKK. Therefore, Subpart A provisions are applicable.	WHGS shall continue to adhere to applicable monitoring, testing, recordkeeping, and reporting regulations.	WHGS complies with applicable requirements.
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Applicable. The fire pump identified as EU: A07 is subject to this AQR.	Applicable monitoring, recordkeeping & reporting requirements.	WHGS complies with applicable requirements.
40 CFR 60, Subpart KKKK	Standards of Performance for Stationary Combustion Turbines	Applicable. The turbines were modified after 02/18/2005	WHGS shall continue to demonstrate compliance using CEMS, EPA approved testing methods, and combustion of low sulfur pipeline natural gas.	WHGS complies with applicable requirements.
40 CFR Part 63, Subpart ZZZZ	"National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"	Applicable. The fire pump is subject to this AQR.	Applicable monitoring, recordkeeping & reporting requirements.	WHGS complies with applicable requirements.
40 CFR Part 70	State Operating Permit Programs	Applicable. WHGS is a major stationary source permitted under this rule. The initial Title V permit application was submitted as required. Renewals are due 6–18 months before expiration; revisions will be submitted within 12 months of starting operation of any new EUs.	The previous Part 70 OP renewal was issued 01/18/2022. The current renewal application was submitted on 10/16/2025, which is within the required timeframe.	WHGS complies with applicable requirements.
40 CFR Part 72	Acid Rain Permit Regulations	Applicable. WHGS operates generators with capacities greater than 25 MW constructed after 11/15/1990.	WHGS submitted the required acid rain permit forms.	WHGS complies with applicable requirements.
40 CFR Part 73	Acid rain Sulfur Dioxide Allowance System	Applicable – The regulations stipulate the allocation, exchange, etc. of acid rain SO_2 allowances	WHGS complies with all applicable requirements and obtains required acid rain SO_2 allowances.	WHGS complies with applicable requirements.
40 CFR Part 75	Acid Rain Continuous	Applicable. WHGS is an affected facility and must meet the	WHGS shall continue to adhere to the CEMS requirements for	WHGS complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
	Emission Monitoring	requirements for monitoring, recordkeeping, and reporting of flow rate, SO_2, NO_X, and CO_2 emissions.	monitoring, recordkeeping, and reporting.	

XI. PERMIT SHIELD

The source has requested a permit shield for applicable regulations as identified in Table XI-1. Compliance with the terms contained in this permit shall be deemed compliance with the applicable requirements in effect on the date of permit issuance.

Table XI-1: Streamlined Requirements Related to Permit Shield (Natural Gas-Fired)

EU	Regulation (40 CFR)	Pollutant	Regulatory Standard		Permit Limit		Value Comparison			Averaging Period Comparison			Shield Statement
			Value	Units	Value	Units	Standard Value, in Units of Permit Limit	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A01/A02	60.4320 (KKKK), Table 1	NO_x	15[1]	ppmvd @ 15% O2	2.5	ppmvd @ 15% O2	15	2.5	Yes	30-day rolling	3 hour	Yes	The permit limit is more stringent than the standard, based upon both concentration and averaging time, therefore the facility should be shielded from the standard.
A03/A04													
A01/A02	60.4330 (KKKK)	NOx	96[2]	ppmvd @ 15% O2	2.5	ppmvd @ 15% O2	96	2.5	Yes	30-day rolling	3 hour	Yes	
A03/A04													

[1] The 40 CFR Part 60 Table 1 NOx standard for modified turbine firing natural gas with heat input >850 MMBtu/hour.
[2] The 40 CFR Part 60 Table 1 NOx standard for turbine >30 MW operating at less than 75% of peak load.

XII. INCREMENT ANALYSIS

Walter Higgins Generating Station is a major source in Hydrographic Area 164A (Ivanpah Valley North). Permitted emission units include two turbines, one boiler and one generator. Since minor source baseline dates for PM_{10} (November 10, 1981), NO_2 (August 15, 2001) and SO_2 (November 10, 1981) have been triggered, Prevention of Significant Deterioration (PSD) increment analysis is required.

DAQ modeled the source using AERMOD to track the increment consumption. Stack data submitted by the applicant was supplemented with information available for similar emission units. One year (2001-2002) of meteorological data from the Bighorn Plant was used in the model. U.S. Geological Survey National Elevation Dataset terrain data were used to calculate elevations. Table XII-1 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.

Table XII-1: PSD Increment Consumption

Pollutant	Averaging Period	Source's PSD Increment Consumption (µg/m³)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO_2	3-hour	0.79[1]	649241	3942557
SO_2	24-hour	0.29[1]	649200	3942600
SO_2	Annual	0.04	649200	3942600
NO_X	Annual	0.47	649200	3942600
PM_{10}	24-hour	3.56[1]	649241	3942557
PM_{10}	Annual	0.51	649200	3942600

[1] Highest Second High Concentration.

XIII. PUBLIC PARTICIPATION

This is a renewal of the OP. Therefore, pursuant to AQR 12.5.2.17, public participation is required.

XIV. ATTACHMENTS

Table XIV-1: Source PTE Summary (ton/yr)

EU	Description	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	VOC	HAP	GHG[1]
A01/A02	Turbine #1 w/HRSG	72.2	72.2	77.9	95.15	5.2	21.65	3.56	773,858.32
A03/A04	Turbine #2 w/HRSG	72.2	72.2	77.9	95.15	5.2	21.65	3.56	773,858.32
A05	Boiler	0.5	0.5	1.80	3.70	0.03	0.20	0.09	5,365.34
A07	Fire Pump	0.01	0.01	0.37	0.06	0.01	0.01	0.01	65.40
Total		**144.91**	**144.91**	**157.97**	**194.06**	**10.44**	**43.51**	**7.22**	**1,553,147.38**

[1]Metric tons

Table XIV-2: Applicability Emissions Summary (ton/yr)

EU	Description	PM_{10}	$PM_{2.5}$	NOx	CO	SO_2	VOC	HAP	GHG[1]
A01/A02	Turbine #1 w/HRSG	72.18	72.18	1,558.00	951.34	5.21	21.64	3.51	974,663.36
A03/A04	Turbine #2 w/HRSG	72.18	72.18	1,558.00	951.34	5.21	21.64	3.51	974,663.36
A05	Boiler	1.75	1.75	6.31	3.70	0.03	0.2	0.09	18,614.90
A07	Fire Pump	0.01	0.01	0.37	0.06	0.01	0.01	0.01	65.40
Total		**146.12**	**146.12**	**3122.68**	**1906.44**	**10.46**	**43.49**	**7.12**	**1,968,007.02**

[1]Metric tons

Table XIV-3: Source PTE for Turbine/HRSG Combination (ton/yr)

EU	Description	Annual Operation (hr/yr)3 (MMBtu/yr)4	EF[1,2] (lb/hr)3 (lb/MMBtu)4	Pollutant	PTE (calculated)	PTE (Permit Limit)[5]
A01/A02	Combination Turbine and Duct Burner for HRSG	8,760	16.48	$PM_{10}/PM_{2.5}$	72.18	72.20
			17.79	NOx	77.92	77.90
			21.72	CO	95.13	95.15
			1.19	SO_2	5.21	5.20
			4.94	VOC	21.64	21.65
		17,510,000	0.000326	HAP	2.86	3.56

[1]Backcalculated from historical annual PTE limits derived for permit issued 11/08/2025
[2]Control: NOx = 95% and CO =90%
[3]All pollutants except HAP
[4]HAP
[5]Permittee requested to retain historical annual PTE limits

Table XIV-4: Source PTE for Turbine/HRSG Combination (tons/yr)

EU	Description	Annual Operation (hr/yr)3 (MMBtu/yr)4	EF[1,2] (lb/hr)3 (lb/MMBtu)4	Pollutant	PTE (calculated)	PTE (Permit Limit)[5]
A03/A04	Combination Turbine and Duct Burner for HRSG	8,760	16.48	$PM_{10}/PM_{2.5}$	72.18	72.20
			17.79	NOx	77.92	77.90
			21.72	CO	95.13	95.15
			1.19	SO_2	5.21	5.20
			4.94	VOC	21.64	21.65
		17,510,000	0.000326	HAP	2.86	3.56

[1]Backcalculated from historical annual PTE limits derived for permit issued 11/08/2025
[2]Control: NOx = 95% and CO =90%
[3]All pollutants except HAP
[4]HAP
[5]Permittee requested to retain historical annual PTE limits

Table XIV-5: Source PTE for Auxiliary Boiler

EU	Description	Annual Operation (hr/yr)[1] (MMBtu/yr)[2]	EF (lb/hr)[1] (lb/MMBtu)[2]	Pollutant	PTE (ton/yr)
A05	Boiler	2,500	0.40	$PM_{10}/PM_{2.5}$	0.50
			1.44	NOx	1.80
			2.96	CO	3.70
			0.02	SO_2	0.03
			0.16	VOC	0.20
		100,000	0.00185	HAP	0.09

[1]All pollutants except HAP
[2]HAP

Table XIV-6: Source PTE and Applicability Emissions for Diesel-Powered Fire Pump

EU#	A07		**Horsepower:**	250		**Emission Factor**	**Control**	**Potential Emissions**		
Make:	Clarke		**Hours/Day:**	24.0		**(lb/hp-hr)**	**Efficiency**	**lb/hr**	**lb/day**	**ton/yr**
Model:	JU6H-UFADR8		**Hours/Year**	500	**PM10**	1.32E-04	0.00%	0.03	0.79	0.01
S/N:	50202093P				**NOx**	5.93E-03	0.00%	1.48	35.58	0.37
					CO	8.82E-04	0.00%	0.22	5.29	0.06
Manufacturer Guarantees					**SO_2**	1.21E-05	0.00%	0.01	0.07	0.01
PM10	0.06	g/hp-hr			**VOC**	1.32E-04	0.00%	0.03	0.79	0.01
NOx	2.69	g/hp-hr			**HAP**	2.71E-05	0.00%	0.01	0.16	0.01
CO	0.4	g/hp-hr								
SO_2		g/kW-hr								
VOC	0.06	g/hp-hr								
Engine Type:	Diesel				Diesel Fuel Sulfur Content is 15 ppm (0.0015%)					

Table XIV-7: Source PTE for GHG (natural gas-fired units)

EU	Description	Pollutant	GWP	Fuel Consumption (MMBtu/yr)	EF (lb/MMBtu)	PTE (U.S. tons/yr)	PTE (metric tons/yr)	CO_2e (metric tons/yr)
A01	Turbine #1	CO_2	1	13,220,000	110	727,100.00	659,614.21	665,825.38
		CH_4	28	13,220,000	0.0086	1,591.69	1,443.96	
		N_2O	265	13,220,000	0.003	5,254.95	4,767.21	
A02	HRSG Associated with EU: A01	CO_2	1	2,145,000	110	117,975.00	107,025.15	108,032.94
		CH_4	28	2,145,000	0.0086	258.26	234.29	
		N_2O	265	2,145,000	0.003	852.64	773.50	
A03	Turbine #2	CO_2	1	13,220,000	110	727,100.00	659,614.21	665,825.38
		CH_4	28	13,220,000	0.0086	1,591.69	1,443.96	
		N_2O	265	13,220,000	0.003	5,254.95	4,767.21	
A04	HRSG Associated with EU: A03	CO_2	1	2,145,000	110	117,975.00	107,025.15	108,032.94
		CH_4	28	2,145,000	0.0086	258.26	234.29	
		N_2O	265	2,145,000	0.003	852.64	773.50	
A05	Auxiliary Boiler	CO_2	1	100,000	117.65	5,882.50	5,336.52	5,365.34
		CH_4	28	100,000	0.00225	3.15	2.86	
		N_2O	265	100,000	0.00216	28.62	25.96	
Total								**1,553,081.97**

Table XIV-8: Source PTE and Applicability Emissions for GHG (diesel engine)

I	Rating (hp)	Fuel Consumption (gal/yr)	HHV (MMBtu/gal)	Pollutant	EF (kg/MMBtu)	GWP	CO2e (metric tons/yr	US tons
A07	250	6,387	0.138	CO_2	73.96	1	65.19	71.86
				CH_4	0.003	28	0.07	0.08
				N_2O	0.0006	265	0.14	0.15
Total							**65.40**	**72.09**

Table XIV-9: Applicability Emissions for Turbine/HRSG Combination

EU	Description	Annual Operation (hr/yr)[2] (MMBtu/yr)[3]	EF[1] (lb/hr)[2] (lb/MMBtu)[3]	Pollutant	PTE (ton/yr)
A01/A02	Combination Turbine and Duct Burner for HRSG	8,760	16.48	$PM_{10}/PM_{2.5}$	72.18
			355.71	NOx	1558.00
			217.20	CO	951.34
			1.19	SO_2	5.21
			4.94	VOC	21.64
		21,497,000	0.000326	HAP	3.51

[1]Backcalculated from historical annual PTE limits derived for permit issued 11/08/2025
[2]All pollutants except HAP
[3]HAP

Table XIV-10: Applicability Emissions for Turbine/HRSG Combination

EU	Description	Annual Operation (hr/yr)[2] (MMBtu/yr)[3]	EF[1] (lb/hr)[2] (lb/MMBtu)[3]	Pollutant	PTE (ton/yr)
A03/A04	Combination Turbine and Duct Burner for HRSG	8,760	16.48	$PM_{10}/PM_{2.5}$	72.18
			355.71	NOx	1558.00
			217.20	CO	951.34
			1.19	SO_2	5.21
			4.94	VOC	21.64
		21,497,000	0.000326	HAP	3.51

[1]Backcalculated from historical annual PTE limits derived for permit issued 11/08/2025
[2]All pollutants except HAP
[3]HAP

Table XIV-11: Applicability Emissions for Boiler

EU	Description	Annual Operation (hr/yr)[1] (MMBtu)[2]	EF (lb/hr)[1] (lb/MMBtu)[2]	Pollutant	PTE (ton/yr)
A05	Boiler	8,760	0.40	$PM_{10}/PM_{2.5}$	1.75
			1.44	NOx	6.31
			2.96	CO	12.96
			0.02	SO_2	0.09
			0.16	VOC	0.70
		350,400	0.00185	HAP	0.32

Table XIV-12: Applicability Emissions for GHG (natural gas-fired units)

EU	Description	Pollutant	GWP	Fuel Consumption	EF (lb/MMBtu)	PTE (U.S. tons/yr)	PTE (metric tons/yr)	CO_2e (metric tons/yr)
A01	Turbine #1	CO_2	1	13,220,000	110	727,100.00	659,614.21	665,825.38
		CH_4	28	13,220,000	0.0086	1,591.69	1,443.96	
		N_2O	265	13,220,000	0.003	5,254.95	4,767.21	
A02	HRSG Associated with EU: A01	CO_2	1	6,132,000	110	337,260.00	305,957.21	308,838.22
		CH_4	28	6,132,000	0.0086	738.29	669.77	
		N_2O	265	6,132,000	0.003	2,437.47	2,211.24	
A03	Turbine #2	CO_2	1	13,220,220	110	727,112.10	659,625.19	665,836.46
		CH_4	28	13,220,220	0.0086	1,591.71	1,443.98	
		N_2O	265	13,220,220	0.003	5,255.04	4,767.29	
A04	HRSG Associated with EU: A03	CO_2	1	6,132,000	110	337,260.00	305,957.21	308,838.22
		CH_4	28	6,132,000	0.0086	738.29	669.77	
		N_2O	265	6,132,000	0.003	2,437.47	2,211.24	
A05	Auxiliary Boiler	CO_2	1	350,400	117.65	20,612.28	18,699.15	18,800.14
		CH_4	28	350,400	0.00225	11.04	10.01	
		N_2O	265	350,400	0.00216	100.28	90.98	
Total								**1,968,138.42**