

PRIOR NOTIFICATION FORM

Date: September 14, 2016

Requester: Don Hopper

Source Name: Silverhawk Generating Station

Source ID (if applicable): 1584

Outstanding Balance (if applicable): 0

Action Needed:

- No Action needed; attach to front page to Permit
- Application needed; send Manager's form letter
- Other:

Comments:

NV Energy is bringing in a temporary portable diesel engine at the source for the purpose of transferring water for dust control applications for Hyperloop one construction activities. A John Deere 4045TF, 74 hp engine is brought on site on September 12, 2016. The engine is estimated to operate maximum 1500 hours.

Air Quality approves this request for the temporary operation of the portable engine described in the prior notification form. The source is required to monitor the total hours of operation of the engine and report the actual emissions with the semi-annual report.

Santosh Mathew

Manager's Approval:

Date: September 26, 2016

Rose Webster

From: Williams, Kimberly <KWilliams@nvenergy.com>
Sent: Wednesday, September 14, 2016 2:56 PM
To: Rose Webster
Cc: Brewer, George; Giannantonio, Anthony
Subject: letter regarding temporary water pump at Silverhawk Generating Station

Categories: Red Category

Rose –

The letter regarding the use of a temporary water pump at Silverhawk Generating Station erroneously listed the Chuck Lenzie Generation Station's facility ID. This letter is for Silverhawk Generating Station -- Facility ID 1584.

Sorry for any confusion and thanks for checking!

Have a good afternoon.

Kimberly Williams | Manager, Environmental Services
NV Energy | PO Box 98910, M/S 30, Las Vegas, NV 89151
tel (702) 402-2184 | cel (702) 232-9385 | fax (702) 402-2051
kwilliams@nvenergy.com



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RECEIVED
CC-DAQ

2016 SEP 14 P 12:50

September 12, 2016

Mr. Richard Beckstead
Mr. Gary Miller
Clark County Department of Air Quality
4701 W. Russell Road, Suite 200
Las Vegas, NV 89118

RE: Use of Temporary Diesel Water Pump Silverhawk Generating Station (Part 70 Operating Permit Source #1513)

Dear Messrs. Beckstead and Miller:

Nevada Energy (NV Energy) would like to notify you of the use of a temporary portable diesel engine at Silverhawk Generating Station for the purpose of transferring water for dust control applications for Hyperloop One construction activities. A John Deere 4045TF, 74 horsepower (hp) engine is being brought onsite September 12, 2016. The engine is estimated to operate no longer than 1500 hours in a worst-case scenario. The potential to emit (PTE) is estimated based on this worst-case scenario. The detailed emission calculations are included in Attachment 1. The manufacturers' specifications and emission data sheet for the portable engine are included in Attachment 2. NV Energy will also report the hours of operation for these portable engines in the next semi-annual report, and will report the emissions in the annual emission inventory.

Please feel free to call George Brewer (702) 239-8801 or Kim Williams at (702) 402-2184 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Don Hopper".

Don Hopper
Regional Director
NV Energy

ATTACHMENT 1

Detailed Emission Calculations

John Deere 74Hp Emissions Evaluation

EPA Tier IV

Emission Factors

Basis: Manufacturer's Emissions Data Sheet

Maximum Power Output Capacity (BHP)	74
Equivalent KW	55
Proposed Operating Hours for the Project	1,500
Maximum Fuel Usage (gal/hr)	2.30
No. 2 Diesel Fuel Density (lb/gal)	7.26

Basis

Manufacturer specifications
 Worst-case operating hours while the unit being onsite
 Manufacturer specifications
 MSDS

Criteria Pollutant Emission Factors:

Pollutant	Emission Factor ^a	Units
NO _x	4.70	g/kw-hr
CO	5.00	g/kw-hr
SO ₂ ^b	15	ppm
PM ₁₀	0.30	g/kw-hr
VOC	1.12	g/hp-hr

Criteria Pollutant Emissions Estimates:

Pollutant	(lb/hr) ^c	Portable Unit PTE (tons/period) ^d
NO _x	0.57	0.43
CO	0.61	0.45
SO ₂	0.001	3.75E-04
PM ₁₀	0.04	0.027
VOC	0.18	0.14
HAP	see below	8.87E-04

Hazardous Air Pollutant (HAP) Potential Emissions:

Pollutant	Emission Factor (lb/MMBtu) ^e	PTE	
		(lb/hr) ^f	(tons/period) ^d
HAPs:			
Acetaldehyde	7.67E-04	2.34E-04	1.76E-04
Acrolein	9.25E-05	2.82E-05	2.12E-05
Benzene	9.33E-04	2.85E-04	2.14E-04
1,3-Butadiene	3.91E-05	1.19E-05	8.96E-06
Formaldehyde	1.18E-03	3.60E-04	2.70E-04
Toluene	4.09E-04	1.25E-04	9.37E-05
Xylenes	2.85E-04	8.70E-05	6.53E-05
Polycyclic Organic Matter:			
PAH	1.68E-04	5.13E-05	3.85E-05
Total HAP		1.18E-03	8.87E-04

^a Emission factors for all pollutants, except VOC and SO₂, are based on manufacturer specifications. VOC emission factor is derived from AP-42 Table 3.3-

^b The maximum S content of the Number 2 Diesel Fuel will be 15 ppm. SO₂ emissions are estimated by assuming stoichiometric conversion of 100% S in

^c Hourly Emissions Rate (lb/hr) for all criteria pollutants except SO₂ = Emission Factor (g/hp-hr) x Power Rating of Engine (hp)/453.6 (g/lb), SO₂ Hourly

^d Emissions (tons/period) = (lb/hr)_{Emissions} x (Proposed Operating Hours) x (1 ton/2000 lb).

^e Emission factors from AP-42 Section 3.3, Table 3.3-2 "Speciated Emission Factors for Uncontrolled Diesel Engines," Supplement F, August 2000.

^f Hourly Emissions Rate (lb/hr) = Fuel Consumption Rate (gal/hr) x Density of Diesel Fuel (lb/gal) x Average Btu value of diesel fuel (Btu/lb) x (1 MMBtu/1e6 Btu) x HAP Emission Factor (lb/MMBtu)

ATTACHMENT 2

Manufacturer's Data Sheets for the Portable Pumps

High Head Pump

HH80c

Overview:

The 3" suction x 3" discharge self-priming centrifugal HH80c high head pump provides up to a maximum of 450 gallons per minute pumping and up to 360 feet of head. This pump is usually mounted on a trailer and features the standard PowerPrime Clean Prime Venturi priming system which allows it to run continuously, unattended and even run dry.

Features:

- Suction lift to 28 feet
- Continuous self-priming
- Runs dry unattended
- 12-volt auto start electric control panel
- SAE-Mounted
- Flex coupled to diesel engine
- 24-hour capacity fuel tank
- Compressor/venturi automatic priming system
- Ductile iron volute with stainless steel impellers
- Replaceable wear plates

Specs:

Maximum Flow	450 GPM
Maximum Head	360 feet
Pump Size	3" x 3"
Maximum Solids Handling	1 inch
Dry weight	3,660 lbs.
Footprint: Trailer mounted model	135" x 66"
Fuel tank	120 gallon
Fuel consumption	2.3 gph @ 2,200 RPM



Accessories:

- Spillguard
- Suction and Discharge Hoses
- Fuel Nurse Tank
- VFD for electric driven models



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CURVE: 01-0133-02-81

PUMP : HH-80c

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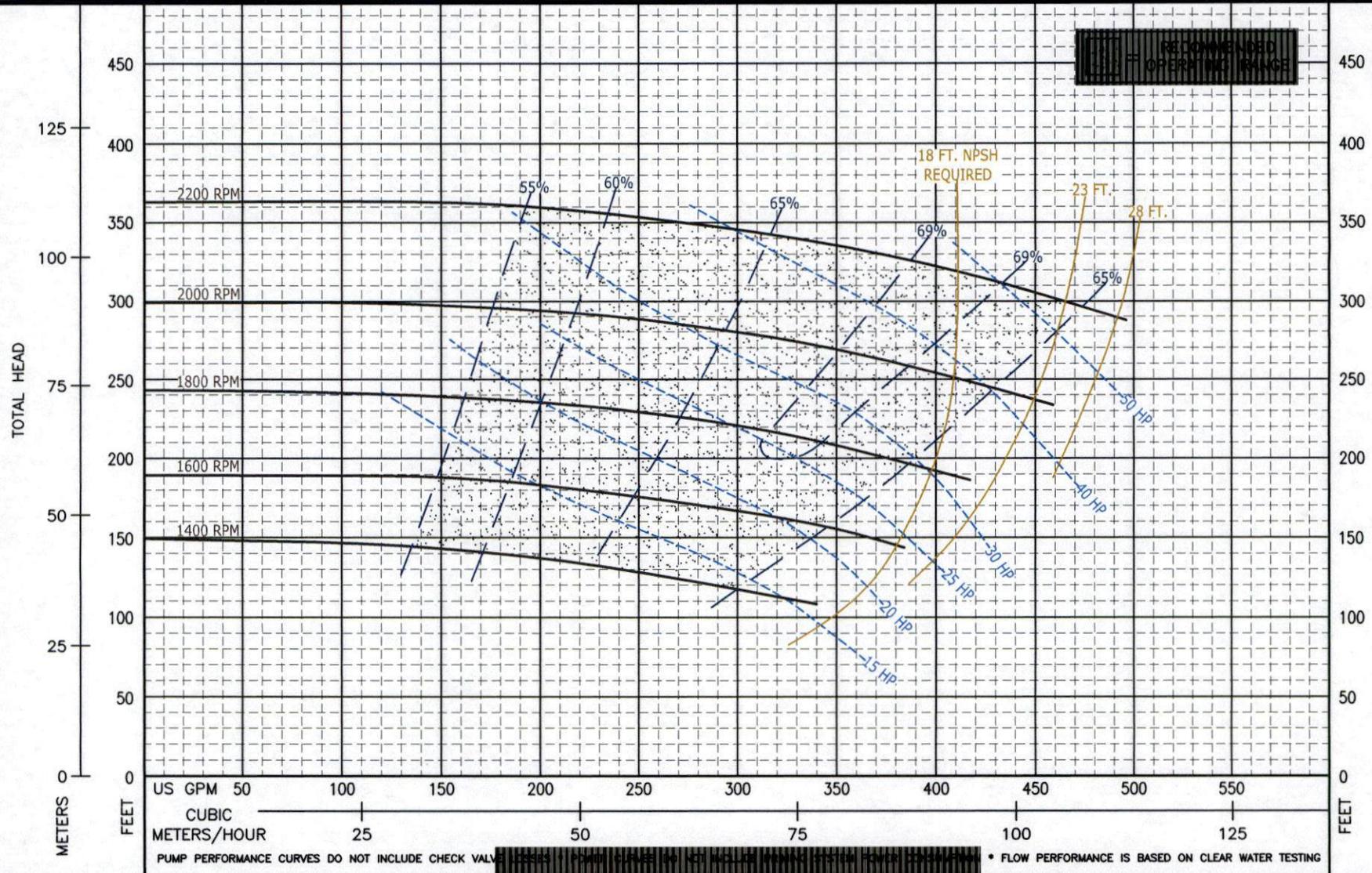
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IMPELLER
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IMPELLER &
WEAR RINGS
BRASS



PUMP PERFORMANCE CURVES DO NOT INCLUDE CHECK VALVE LOSSES. PUMP CURVES DO NOT INCLUDE WINDMILL POWER CONSUMPTION. * FLOW PERFORMANCE IS BASED ON CLEAR WATER TESTING

 AIR RESOURCES BOARD	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0444
		New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2012	CJDXL04.5130	4.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Pump, Compressor, Generator Set, Other Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 56	Tier 4 Interim	STD	N/A	N/A	4.7	5.0	0.30	20	15	50
		CERT	-	-	4.6	1.2	0.29	2	1	4

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 20 day of September 2011.


 Annette Hebert, Chief
 Mobile Source Operations Division

8-11-2011

CUA: U-R-04-044
Engine Model Summary Form

page 1 of 1

Manufacturer: John Deere Power Systems
Engine category: Nonroad CI
EPA Engine Family: CJDXL04.6130
Mfr Family Name: 360TAC
Process Code: Correction

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesel only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kg/hr)@peak torque	9. Emission Control Device Per SAE J1930
4045TF290A	4045T	55.0@2400	59.7@2400	14.61@2400	289@1700	66.4@1700	11.51@1700	EM DFI TC
4045TF290B	4045T	55.0@1800	73@1800	13.4@1800				EM DFI TC
4045TF290C	4045T	55.0@2350	59.2@2350	14.19@2350				EM DFI TC
4045TF290D	4045T	55.0@2100	63@2100	13.49@2100				EM DFI TC
4045TF290E	4045T	48.0@1760	64.1@1760	11.51@1760				EM DFI TC
4045TF290F	4045T	36.0@2350	38.8@2350	9.54@2350				EM DFI TC
4045TF290G	4045T	36.0@2100	41.3@2100	8.85@2100				EM DFI TC
4045TF290H	4045T	36.0@1760	48.1@1760	8.83@1760				EM DFI TC

CLARK COUNTY
DEPARTMENT OF AIR QUALITY
4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118
Part 70 Operating Permit
Source: 1584
Issued in accordance with the
Clark County Air Quality Regulations
(AQR Section 12.5)

ISSUED TO: Nevada Power Company, dba, NV Energy
Silverhawk Generating Station

SOURCE LOCATION:
11511 Apex Power Parkway
Las Vegas, Nevada 89124
T18S, R63E, S5
Hydrographic Basin Number: 216

COMPANY ADDRESS:
6226 West Sahara Avenue
Las Vegas, Nevada 89146

NATURE OF BUSINESS:
SIC Code 4911: Electric Services
NAICS: 221112: Fossil Fuel Electric Power Generation

RESPONSIBLE OFFICIAL:
Name: Kevin Geraghty
Title: Vice President, Generation
Phone: (702) 402-5662
Fax Number: (702) 402-0835

Permit Issuance Date: July 20, 2016

Expiration Date: July 19, 2021

ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY



Richard Beckstead
Permitting Manager, Clark County Department of Air Quality

EXECUTIVE SUMMARY

NV Energy’s Silverhawk Generating Station (SGS) is an electrical power generating station located at 15111 Apex Power Parkway in North Las Vegas, Nevada. The legal description of the source location is as follows: portions of Township 18S, Range 63E, Section 5 in Apex Valley, County of Clark, State of Nevada. The source is situated in hydrographic area 216 (Garnett Valley). Garnett Valley is currently designated attainment for all regulated pollutants.

SGS is a Title V major source for PM₁₀, PM_{2.5}, NO_x, and CO and a minor source for SO₂, VOC, and HAPs pollutants. The generating station operates two 175 MW natural gas-fired combustion turbine generators, two heat recovery steam generators with natural gas-fired duct burners, one steam turbine generator, one 3-cell, 6,600 gpm cooling tower, one 100 hp LPG-fired emergency generator, and one 250 hp diesel-powered fire pump. The potential electrical generating capacity of the source is above 250 MMBtu/hr. As a result, the source is a categorical source, as defined by AQR 12.2.2(j)(1). This Part 70 Operating Permit is issued based on the Title V Renewal application submitted on November 3, 2015 and supplemental information received on December 8, 2015. SGS is also a source of GHG pollutants.

The turbines are subject to the requirements of 40 CFR Part 60, Subparts A and GG, the heat recovery steam generators to the turbines are subject to 40 CFR Part 60, Subparts A and Da, the fire pump and emergency generator are subject to 40 CFR Part 63, Subpart ZZZZ, and the facility is subject to 40 CFR Part 72 and 75.

The following table summarizes SGS’s potential-to-emit for each regulated air pollutant for all emission units identified by this Part 70 OP. These emission rates are for reference purposes only and are not intended to be enforced by direct measurement unless otherwise noted in Section III below.

PM₁₀	PM_{2.5}	NO_x	CO	SO₂	VOC	HAP	GHG¹
148.95	148.95	310.91	561.32	10.34	85.38	5.37	1,955,240

¹Expressed as metric tons of CO₂e

Air Quality will continue to require the sources to estimate their GHG potential to emit in terms of each individual pollutant (CO₂, CH₄, N₂O, CF₆ etc.) and the TSD includes these PTEs for informational purposes.

Pursuant to AQR 12.5.2, all terms and conditions in Sections I through VI and Attachments 1 and 2 are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I-1: List of Acronyms and Abbreviations

Acronym	Term
Air Quality	Clark County Department of Air Quality
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
CAAA	Clean Air Act, as amended, or Clean Air Act Amendments
CEMS	Continuous Emissions Monitoring System
CF ₆	Carbon Floride
CFC	Chlorofluorocarbon
CFR	United States Code of Federal Regulations
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
dscf	Dry Standard Cubic Feet
DOM	Date of Manufacturer
EPA	United States Environmental Protection Agency
EU	Emission Unit
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
HCFC	Hydrochlorofluorocarbon
HHV	High Heating Value
hp	Horse Power
HRSG	Heat Recovery Steam Generator
MMBtu	Millions of British Thermal Units
MW	Megawatt
N ₂ O	Nitrous Oxide
NAICS	North American Industry Classification System
NESHAP	National Emission Standard for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
O ₂	Oxygen
OP	Operating Permit
PM _{2.5}	Particulate Matter less than 2.5 microns
PM ₁₀	Particulate Matter less than 10 microns
ppmvd	Parts per Million, Volumetric Dry
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
QA/QC	Quality Assurance/Quality Control
QAP	Quality Assurance Plan
RATA	Relative Accuracy Test Audit
RMP	Risk Management Plan
scf	Standard Cubic Feet
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO _x	Sulfur Oxides
TDS	Total Dissolved Solid
TSD	Technical Support Document
U.S.C.	United States Code
VOC	Volatile Organic Compound

II. GENERAL CONDITIONS

A. General Requirements

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, Nevada law, and the Clean Air Act, and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; revision; or denial of a permit renewal application. *[AQR 12.5.2.6(g)(1)]*
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. *[AQR 12.5.2.6(f)]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. *[AQR 12.5.2.6(h)]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
5. The Permittee agrees to allow inspection of the premises, to which this permit relates, by 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 4.3.3; AQR 4.9; AQR 5.1.1, AQR 12.5.2.8(b)]*
6. The Permittee shall allow the Control Officer, upon presentation of credentials to: *[AQR 4.3 and 12.5.2.8(b)]*
 - a. Have access to 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 devices such as cameras or video equipment.
7. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit. A responsible official shall certify the additional information consistent with the requirements of AQR Section 12.5.2.4. *[AQR 12.5.2.2]*
8. The Permittee who has been issued a permit under Section 12.5 shall post such permit in a location which is clearly visible and accessible to the facility's employees and representatives of the department. *[AQR 12.5.2.6(m)]*

B. Modification, Revision, 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 Permit from the Control Officer *[AQR 12.4.1.1(a)]*
2. The permit may be revised, revoked, reopened and reissued, or terminated for cause. 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. 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 that a complete application need not be received before a Part 70 general permit is issued pursuant to Section 12.5.2.20; and
 - b. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Section 12.5
4. 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, which would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR 60.12]*
5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. *[AQR 12.5.2.6(i)]*
6. 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)]*
7. For purposes of permit renewal, a timely application is a complete application that is submitted at least six (6) months and not greater than eighteen (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)]*

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall submit all compliance certifications to EPA and to the Control Officer. *[AQR 12.5.2.8(e)(4)]*

2. Any application form, report, or compliance certification submitted to the Control Officer pursuant to the permit or AQRs shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification 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)]*
3. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for 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 required to be kept by the permit, or, for information claimed to be confidential, the Permittee may furnish such records directly to the Administrator along with a claim of confidentiality. *[AQR 12.5.2.6(g)(5)]*
4. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from the source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. *[AQR 4.4]*
5. The Permittee shall submit annual emissions inventory reports based on the following: *[AQR 18.6.1]*
 - a. The annual emissions inventory must be submitted to Air Quality by March 31 of each calendar year; and
 - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[AQR 12.5.2.6(g)(2)]*
2. Any person who violates any provision of the AQR, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by Air Quality is guilty of a civil offense and shall pay 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]*
3. Any person aggrieved by an order issued pursuant to AQR Section 9.1 is entitled to review as provided in Chapter 233B of NRS. *[AQR 9.12]*

4. The Permittee shall comply with the requirements of 40 CFR Part 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1(b)(8)]*
5. The Permittee shall certify compliance with terms and conditions contained in the Part 70 OP, including emission limitations, standards, work practices, and the means for monitoring such compliance. *[AQR 12.5.2.8(e)]*
6. The Permittee shall submit compliance certifications annually in writing to the Control Officer (4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne Street, San Francisco, California 94105). A compliance certification for each calendar year will be due on or before January 30th 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. The 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 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 subsection II.D.6(b). 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 is required and in which an excursion or exceedance, as defined under 40 CFR Part 64, occurred.
7. The Permittee shall report to the Control Officer (4701 West Russell Road, Suite – 200, Las Vegas, Nevada 89118) any startup, shutdown, malfunction, emergency or deviation which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below: *[AQR 12.5.2.6(d)(4)(B) and AQR 25.6.1]*
 - a. within twenty-four (24) hours of the time the Permittee learns of the excess emissions, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email: airquality@clarkcountynv.gov; and
 - b. within seventy-two (72) hours of the notification required by paragraph (a) above, the detailed written report containing the information required by AQR Section 25.6.3 shall be submitted.

8. The Permittee shall report to the Control Officer with the semiannual monitoring report 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)]*
9. The owner or operator of any source required to obtain a permit under Section 12 shall report to the Control Officer emissions that are in excess of an applicable requirement or emission limit that pose a potential imminent and substantial danger to public health, safety or the environment as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered, with a written report submitted within two (2) days of the occurrence. *[AQR 25.6.2]*

E. Performance Testing Requirements

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the Air Quality regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. *[AQR 4.5]*
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.6]*
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (4701 West Russell Road, Suite 200, Las Vegas, Nevada 89118) not less than 45, nor more than 90, days prior to the anticipated date of the performance test, unless otherwise specified in Section III.D. *[AQR 12.5.2.8]*
4. The Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA, to demonstrate compliance with a requirement under 40 CFR Part 60. *[40 CFR Part 60.8(b)]*
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. *[12.5.2.8]*

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

A. Emission Units

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

Table III-A-1: List of Emission Units

EU	Description	Rating	Make	Model #	Serial #
A01	Natural Gas-Fired Turbine	175 MW	Westinghouse	501FD	37A-8193-1
A02	Duct-Burner Heat Recovery Steam Generator (associated with A01)	530 MMBtu/hr	Alstom		
A03	Natural Gas-Fired Turbine	175 MW	Westinghouse	501FD	37A-8194-1
A04	Duct-Burner Heat Recovery Steam Generator (associated with A03)	530 MMBtu/hr	Alstom		
A05	Diesel-Powered Fire Pump; DOM: 2004	250 hp	Clarke	JU6HUF50	PE6068TF234110
A06	LPG-Fired Emergency Engine; DOM: 2004	100 hp	Generac	SG060	2072892
A07	Three-Cell Cooling Tower; 0.001% Drift Loss; 8,144 ppm TDS	6,600 gpm	International Cooling Tower	FCC-12-03	FCC-12-03-8434-03

The units in Table III-A-2 are present at this source, but are insignificant activities pursuant to AQR Section 12.5. 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 III-A-2: Summary of Insignificant Activities

Description
Mobile Combustions Sources
Station Maintenance Activities
Maintenance Shop Activities (e.g., part washers, sand blasters, etc.)
Steam Cleaning Operations
LPG Tank, 500 gallons
Diesel Tank, 280 gallons
Lube oil sumps and vents
Portable gas-fired pump, 3.5 hp

B. Emission Limitations and Standards

1. Emission Limits

Turbines

- a. The Permittee shall not allow the actual emissions, including the emissions from startup and shutdown, from EUs A01, A02, A03, and A04 to exceed the PTE listed in Table III-B-1 during any consecutive 12-month period. [AQR 12.5.2.6(b)]

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

EU	PM ₁₀ /PM _{2.5}	NO _x	CO	SO ₂	VOC
A01 + A02	73.80	154.10	280.40	5.10	42.60
A03 + A04	73.80	154.10	280.40	5.10	42.60
A05	0.14	1.94	0.42	0.13	0.16
A06	0.01	0.77	0.10	0.01	0.02
A07	1.20	0.00	0.00	0.00	0.00

¹Annual emissions for turbine/duct burner pairs (A01/A02) and (A03/A04) are based on normal operations including 2,000 hours of turbines operating with duct firing at 100 percent load and 900 hours of start-up/shut-down cycles.

- b. The Permittee shall calculate and log all startup and shutdown emissions, except for those emissions which can be recorded using CEMS, for purposes of demonstrating compliance with the annual PTE and startup/shutdown cycling hours per year for the source. *[NSR ATC/OP Modification 0, Amendment 3, Condition II-B-4 (12/04/06)]*
- c. The Permittee shall not allow actual emissions from each emission unit to exceed the PTE listed in Table III-B-2. Pound-per-hour limits are normal operation limits only (exclude startup and shutdown). *[AQR 12.5.2.6(b)]*

Table III-B-2: Emission Unit PTE (pounds per hour)¹

EU	NO _x	CO	SO ₂	VOC
A01+A02	23.0	22.4	1.5	6.4
A03+A04	23.0	22.4	1.5	6.4

¹Only emission units that require performance testing are included in this table.

- d. The Permittee shall not allow the emission limits for NO_x and CO, outlined in Table III-B-3, to be exceeded for any three (3) hour rolling averaging period as determined by the CEMS as described in Section III-C, excluding any startup or shutdown periods. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-7 (12/04/06)]*

Table III-B-3: Emission Rates for each Turbine and Duct Burner¹

	NO _x @ 15% O ₂	CO @ 15% O ₂	VOC @ 15% O ₂
With Duct firing	2.5 ppmvd	4 ppmvd	2.0 ppmvd
Without Duct Firing	2.5 ppmvd	4 ppmvd	2.0 ppmvd

¹Limits based on normal operations, 3-hour averaging period

Other

- e. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. *[AQR 26.1.1]*

2. Operational Limits

Turbines

- a. The Permittee shall limit each combustion turbine generator to the manufacturer's maximum heat input rating of 1,980 MMBtu/hr (HHV) at 67°F and a maximum heat input of 15,840,000 MMBtu per year during any consecutive 12-month period. (EUs: A01 and A03). *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-1 (12/04/06)]*

- b. The Permittee shall limit each duct burner to the manufacturer's maximum heat input rating of 530 MMBtu/hr (HHV) and a maximum heat input of 1,060,000 MMBtu per year during any consecutive 12-month period. (EUs: A02 and A04). *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-2 (12/04/06)]*
- c. The Permittee shall limit each duct burner (EU: A02 and A04) to a maximum of 2,000 hours per year during any consecutive 12-month period. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-2 (12/04/06)]*
- d. Startup shall be defined as the period beginning with ignition and lasting until a turbine (EU: A01 or A03) has reached a continuous and stable operating level, and the catalyst has reached optimal operating temperature. Shutdown means the period beginning with the lowering of the electric load of a turbine below 50 percent of nameplate capacity and ending when combustion has ceased. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-4 (12/04/06)]*

Emergency Generators

- e. The Permittee shall limit the operation of the 250 hp diesel-powered emergency fire pump (EU: A05) for testing and maintenance purposes to a maximum of 100 hours per year. The fire pump can be operated up to a maximum of 50 hours per year for nonemergency use, but any hours the pump is operated in nonemergency situations shall be inclusive of the 100 hour maximum for testing and maintenance. *[40 CFR Part 63, Subpart ZZZZ]*
- f. The Permittee shall limit operation of the propane-powered emergency generator (EU: A06) for testing and maintenance purposes to a maximum of 100 hours per year. The emergency generator can be operated up to a maximum of 50 hours per year for nonemergency use, but any hours the generator is operated in nonemergency situations shall be inclusive of the 100 hour maximum for testing and maintenance. *[40 CFR Part 63, Subpart ZZZZ]*

3. Emission Controls

Turbines

- a. The Permittee shall control NO_x exhaust emissions from each turbine and duct burner with dry low-NO_x combustors and a SCR system installed and operated in accordance with manufacturer's specifications and good operating practice. The NO_x exhaust emissions may be further controlled by operation of a pilot water injection system, operated as needed to ensure the NO_x emission limits as outlined in this Part 70 Operating Permit are not exceeded. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-1 (12/04/06)]*
- b. The Permittee shall operate each SCR system whenever the associated turbine unit or duct burner is operating, excluding startups and shutdowns. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-2 (12/04/06)]*
- c. The Permittee shall install oxidation catalysts for the control of CO and VOCs on each of turbine unit/duct burner (EU: A01/A02 and A03/A04) and shall be maintained and operated in accordance with manufacturer's specifications. The oxidation catalysts shall be operated at all times the associated turbine unit/duct burner is operating, excluding periods of startup and shutdown. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-4 (12/04/06)]*

- d. The Permittee shall control SO₂ emissions from each combined cycle system by exclusive use of pipeline-quality natural gas and by applying good combustion practices. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-8 (12/04/06)]*
- e. The sulfur content of natural gas fuel shall not exceed an average concentration of 0.75 grains per 100 dscf per year. The Permittee shall verify compliance with the fuel gas sulfur content in accordance with 40 CFR 60.334(h). *[NSR ATC/OP Modification 0, Amendment 3, Condition III-C-5 (12/04/06)]*
- f. The Permittee shall control PM₁₀ emissions from each combined cycle system by properly maintaining the inlet air filters preceding each turbine per manufacturer's specifications. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-9 (12/04/06)]*
- g. The Permittee shall not construct combustion turbine/HRSG exhaust stacks to exceed a maximum height of 150 feet above grade or a maximum diameter of 18 feet. Any change in stack height or diameter, as modeled in the application, will require a revision to this Part 70 Operating Permit. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-13 (12/04/06)]*

Fire Pump

- h. The Permittee shall operate the diesel fire pump (EU: A05) with a turbocharger, aftercooler, and timing retardation, *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-7 (12/04/06)]*
- i. The Permittee shall operate and maintain the fire pump (EU: A05) in accordance with the manufacturer's specifications. *[AQR 12.5.2.6(a)]*
- j. The fire pump (EU: A05) is subject to the provisions of 40 CFR Part 63, Subpart ZZZZ and shall comply with the following requirements:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - ii. Inspect air cleaners every 1,000 hours of operation or annually, whichever comes first;
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and
 - iv. Install a nonresettable hour meter, if one is not already installed.

Generator

- k. The Permittee shall combust only propane in the emergency generator (EU: A06). *[NSR ATC/OP Modification 0, Amendment 3, Condition III-A-8 (12/04/06)]*
- l. The Permittee shall operate and maintain the propane-fired emergency generator (EU: A06) in accordance with the manufacturer's specifications. *[AQR 12.5.2.6(a)]*
- m. The propane emergency generator (EU: A06) is subject to the provisions of 40 CFR Part 63, Subpart ZZZZ and shall comply with the following requirements:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - ii. Inspect air cleaners every 1,000 hours of operation or annually, whichever comes first;

- iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; and
- iv. Install a nonresettable hour meter, if one is not already installed.

Cooling Tower

- n. The Permittee shall operate the cooling tower (EU: A07) with drift eliminators that have a manufacturer's maximum drift rate of 0.001 percent. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-14 (12/04/06)]*
- o. The Permittee shall limit the TDS of the cooling tower water (EU: A07) to a maximum concentration of 8,144 ppm, with a circulation rate not to exceed 6,600 gallons per minute. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-14 (12/04/06)]*
- p. The Permittee shall operate and maintain the cooling tower (EU: A07) in accordance with the manufacturer's specifications. *[AQR 12.5.2.6(a)]*
- q. The Permittee shall use no chromium containing compounds for water treatment in any cooling towers. *[AQR 12.5.2.6(a)]*

C. Monitoring

- 1. To demonstrate continuous direct compliance with all emission limitations for NO_x and CO specified in this permit, the Permittee shall install, calibrate, maintain, operate, and certify CEMS for NO_x, CO, and O₂ on each stationary gas turbine unit in accordance with both 40 CFR Part 60 and 40 CFR Part 75. Each CEMS shall include an automated data acquisition and handling system. Each system shall monitor and record at least the following data: *[AQR 12.5.2.6(d)]*
 - a. exhaust gas concentrations of NO_x, CO, and diluent O₂ for all turbine units (EUs: A01, A02, A03, and A04);
 - b. exhaust gas flow rate (by direct or indirect methods);
 - c. fuel flow rate and type;
 - d. hours of operation;
 - e. 3-hour rolling averages for each NO_x and CO concentration;
 - f. Hourly mass emissions of NO_x and CO; and
 - g. hours of downtime of the CEMS.
- 2. The Permittee shall maintain and adhere to the latest QAP for all CEMS, submitted to and approved by Air Quality that includes auditing and reporting schedules, reporting schedules, design specifications, and other quality assurance requirements for each CEMS. *[40 CFR Part 75]*
- 3. The Permittee shall conduct periodic audit procedures and QA/QC procedures for CEMS conforming to the provisions of 40 CFR Part 60: Appendix F or 40 CFR Part 75: Appendix B, as applicable. *[AQR 12.5.2.6(d)]*

4. The Permittee shall conduct relative accuracy test audits (RATA) of the NO_x, CO and O₂ 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. *[40 CFR Part 60, Appendix F 5.1.1 and 5.1.4]*
5. The Permittee shall conduct RATA of the CO, NO_x, and diluent O₂ CEMS at least annually. *[AQR 12.5.2.6(d)]*
6. The Permittee shall verify compliance with the SO₂ emission limitations specified in permit, when operating natural gas, by utilizing fuel which meets the definition of natural gas per 40 CFR Part 60.331(u) and that the maximum total sulfur content of the fuel is 0.75 grains/100 scf or less in accordance through 40 CFR Part 60.334(h). *[AQR 12.5.2.6(a)]*
7. The Permittee shall determine the natural gas heating value and consumption rates for all turbine units. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-B-6 (12/04/06)]*
8. The Permittee shall monitor the natural gas fuel flow rate of each turbine and each duct burner with a continuous monitoring system. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-E-9 (12/04/06)]*

Diesel Engines

9. The Permittee shall operate the fire pump and emergency generator (EUs: A05 and A06) with a nonresettable hour meter and monitor the duration of operation for testing, maintenance, and nonemergency operation, and separately for emergencies. *[40 CFR Part 63, Subpart ZZZZ]*

Cooling Tower

10. The Permittee shall record TDS levels or conductivity of the cooling tower water at least once during every 24-hour period. A conductivity meter may be used for testing purposes. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-E-10 (12/04/06)]*

Other

11. The Permittee shall perform at least one visual emissions observation on a plant-wide level each calendar quarter. Quarterly visual observations shall include the fire pump and emergency generator (EUs: A05 and A06) while operating to demonstrate compliance with the opacity limit. If any of the fire pump and/or emergency generator does not operate during the calendar quarter, then no observation of that unit shall be required. If visible emissions are observed, then corrective actions shall be taken to minimize the emissions and, if practicable, the opacity of emissions shall be visually determined in accordance with 40 CFR Part 60 Appendix A: Reference Method 9. *[AQR 12.5.2.6 and 40 CFR Part 70.6]*

D. Testing

1. The Permittee is subject to performance testing in accordance with 40 CFR 60 Subpart A; 40 CFR Part 60 Subpart GG; 40 CFR Part 60 Subpart Da; 40 Part CFR 72; and Air Quality's Guideline on Performance Testing. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-D-1 (12/04/06)]*

2. The Permittee shall utilize performance testing as an initial instrument for determining compliance with the applicable emission limitations set forth in Tables III-B-1 through III-B-3 of this Part 70 Operating Permit. This does not, however, preclude the use of other credible evidence in determining or showing compliance. *[NSR ATC/OP 1584 Modification 0, Amendment 3, Condition III-D-6 (12/04/06)]*
3. The Permittee conducted initial performance tests for NO_x, CO, VOCs and opacity on both turbine units and associated duct burners. Performance testing for NO_x, CO, and VOCs demonstrated compliance with the part-per-million and pound-per-hour limits outlined in this permit. Initial performance testing for VOCs on the turbine units was twofold, and consisted of testing with duct burners on and duct burners off. The initial performance testing requirement was met on January 9, 2004. *[NSR ATC/OP Modification 0, Amendment 3, Condition III-D-4 (12/04/06)]*
4. The Control Officer may require additional performance testing when operating conditions appear to be inadequate to demonstrate compliance with the limitations in this permit. *[AQR 4.5]*

E. Recordkeeping

1. Permittee shall maintain records on-site that include: *[AQR 12.5.2.6]*

Turbines and Burners

- a. hourly quantity of natural gas consumed in each turbine;
- b. hourly quantity of natural gas consumed in each duct burner;
- c. monthly heating value of natural gas;
- d. sulfur content of natural gas;
- e. summary of items required by Condition III-C-1;
- f. dates, times and duration of each startup and shutdown cycle;
- g. startup and shutdown emissions per stationary gas turbine for each cycle event and annual emissions in tons per year (consecutive 12-month total);
- h. time, duration, nature and probable cause of any CEMS downtime and corrective actions taken;
- i. CEMS audit results, RATA, corrective actions, etc, as required by 40 CFR Part 60 and the CEM QAP;
- j. each CEMS "out-of-Control" period, as defined in 40 CFR Part 75, Appendix B;

Fire Pump and Emergency Generator (EU: A05 and A06)

- k. records of inspections and maintenance;
- l. records demonstrating date and interval of oil and filter change, inspection of air cleaners and inspection of hoses and belts *[40 CFR 63 Subpart ZZZZ]*;
- m. manufacturer's engine specifications;

Cooling Tower

- n. daily TDS content or conductivity of cooling tower circulation water;

Other

- o. log of visible emission checks;
 - p. all CEMS information required by 40 CFR Part 75, including a CEMS monitoring plan;
 - q. certificates of representation for the designated representative and the alternate designated representative that meet all requirements of 40 CFR 72.24;
 - r. copies of all reports, compliance certifications, other submissions and all records made or required under the Acid Rain Program;
 - s. 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; and
 - t. results of all performance testing and RATA.
2. The Permittee shall maintain records on-site that require semiannual reporting and include, at a minimum: *[AQR 12.5.2.6]*
 - a. each monthly consecutive 12-month total quantity of natural gas consumed of natural gas in each turbine;
 - b. each monthly consecutive 12-month total quantity of natural gas consumed of natural gas in each duct burner;
 - c. each monthly consecutive 12-month total hours of operation of each duct burner;
 - d. CEMS audit results or accuracy checks, corrective actions, etc., as required by 40 CFR Part 60, Appendix F and the CEMS Quality Assurance Plan;
 - e. monthly CEMS NO_x and CO mass emission and each consecutive 12-month total of NO_x and CO emissions including startup, shutdown and normal operations in tons;
 - f. annual hours of operation of the fire pump and emergency generator for testing, maintenance, and nonemergency use (EUs: A05 and A06);
 - g. date and duration of operation of the fire pump and emergency generator for emergency use, including documentation justifying use during the emergency (EUs: A05 and A06);
 - h. the magnitude and duration of excess emissions, notifications, monitoring system performance, malfunctions, corrective actions taken, etc., as required by 40 CFR 60.7; and
 - i. monthly calculation of emissions with 12-month consecutive totals for each pollutant and emission unit listed in Table III-A-1.
 3. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective action taken (if required). *[AQR 12.5.2.6]*
 4. Records and data required by this operating permit to be maintained by Permittee may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. *[AQR 4.4 and AQR 12.5.2.8(b)]*

5. All records and logs, or a copy thereof, shall be kept on-site for a minimum of five (5) years from the date the measurement was taken or data was entered and shall be made available to Air Quality upon request. [AQR 12.5.2.6]
6. The Control Officer reserves the right to require additional requirements concerning records and record keeping for this source. [AQR 12.5.2.6]

F. Reporting

1. All report submissions shall be addressed to the attention of the Control Officer. [AQR 12.5.2.6(d), AQR 14.3, AQR 21.4, and AQR 22.4]
2. All reports shall contain a certification of truth, accuracy, and completeness by the responsible official. [AQR 12.5.2.6 and AQR 12.5.2.6(l)]
3. The Permittee shall submit semiannual reports to the Control Officer. [AQR 12.5.2.6(d)]
4. The following requirements apply to semiannual reports: [AQR 12.5.2.6(d)]
 - a. The report shall include a summary of each item listed in Section III-E-2.
 - b. The report shall include summaries of any permit deviations, their probable cause, and corrective or preventative actions taken.
 - c. The report shall be submitted to Air Quality within 30 calendar days after the end of the reporting period.
5. Regardless of the date of issuance of this permit, the schedule for the submittal of reports to the Control Officer shall be as outlined in Table III-F-1: [AQR 12.5.2.6(d)]

Table III-F-1: Reporting Schedule

Required Report	Applicable Period	Due Date
Semiannual Report for 1 st half of year	January, February, March, April, May, June	July 30 th each year ¹
Semiannual Report for the 2 nd half of the year (Any additional annual records required)	July, August, September, October, November, December	January 30 th each year ¹
Annual Compliance Certification	Calendar Year	January 30 th each year ¹
Annual Emission Inventory Report	Calendar Year	March 31 st each year ¹
Excess Emission Notification	As Required	Within 24 hours of the time the Permittee first learns of the excess emissions
Excess Emission Report	As Required	Within 72 hours of the notification
Deviation Report	As Required	Along with semiannual reports ¹
Performance Testing	As Required	Within 60 days from the end of the test ¹
RATA Testing	As Required	Within 45 days from the end of the test ¹

¹If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittals are due on the next regularly scheduled business day.

6. The Control Officer reserves the right to require additional reports and reporting to verify compliance with permit conditions, permit requirements, and requirements of applicable federal regulations. *[AQR 4.4 and AQR 12.5.2.6(d)]*
7. 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 and 40 CFR Part 75. *[40 CFR Part 72.9(f)]*

G. Mitigation

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

IV. ACID RAIN REQUIREMENTS

1. In accordance with the provisions of Title IV of the Clean Air Act and 40 C.F.R. Parts 72 through 77, this Acid Rain Permit is issued to NV Energy, Silverhawk Power Plant.
2. All terms and conditions of the permit are enforceable by Air Quality 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 2. *[40 CFR Part 72.30]*
4. This Acid Rain permit incorporates the definitions of terms in 40 CFR Part 72.2.
5. This permit is valid for a term of five (5) years from the date of issuance unless a timely and complete renewal application is submitted to Air Quality. *[40 CFR Part 72.69]*
6. A timely renewal application is an application that is received at least six months prior to the permit expiration date. *[40 CFR 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)]*

V. OTHER REQUIREMENTS

1. The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a CFC or HCFC compound as a working fluid, unless such fluid has been approved for sale in such use by the Administrator. The Permittee shall keep record of all paperwork relevant to the applicable requirements of 40 CFR Part 82 on site. *[40 CFR Part 82]*

VI. PERMIT SHIELD

Compliance with the terms contained in this permit shall be deemed compliance with the following applicable requirements in effect on the date of permit issuance: *[AQR 12.5.2.9]*

Table VI-1: Applicable Requirements Related to Permit Shield

Citation	Title
AQR Section 14.1.3 Subpart Da	NSPS – Electric Utility Steam Generation
AQR Section 14.1.40 Subpart GG	NSPS – Stationary Gas Turbines

Table V-2: Streamlined requirements Related to Permit Shield

EU	Regulation (40 CFR)	Regulatory Standard	Permit Limit	Value Comparison (in Units of the Permit Limit)			Averaging Period Comparison			Streamlining Statement for Shielding Purposes
				Standard Value	Permit Limit Value	Is Permit Limit Equal or More Stringent?	Standard Averaging Period	Permit Limit Averaging Period	Is Permit Limit Equal or More Stringent?	
A01/ A02 A03/ A04	60.332 (GG)	75 ppmvd NO _x @ 15% O ₂ ¹	2.5 ppmvd NO _x @ 15% O ₂	75 ¹	2.5	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.
A01/ A02 A03/ A04	60.333 (GG)	.15% by volume SO ₂ @ 15% O ₂	1.5 lbs/hr SO _x @ 15% O ₂	428 ²	1.5	Yes	4 hour	1 hour	Yes	
A01/ A02 A03/ A04 A03/ A04	60.333 (GG)	0.8% Sulfur by weight (280 gr/100 scf)	0.75 gr/100 scf	280	0.75	Yes	4 hour	rolling 12-month	Yes	
A01/ A02 A03/ A04	60.42 (Da)	20% Opacity	20% Opacity	20	20	Yes	6 minute block	6 minute rolling	Yes	
A01/ A02 A03/ A04 A03/ A04	60.43 (Da)	0.20 lb SO ₂ /MMBtu	1.5 lb/hr SO ₂	106 ²	1.5	Yes	30-day rolling	1 hour	Yes	
A01/ A02 A03/ A04	60.44 (Da)	1.6 lb NO _x /MW-hr	23 lb/hr NO _x	248 ³	23	Yes	30-day rolling	1 hour	Yes	

ATTACHMENT 1 – APPLICABLE REGULATIONS

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

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

Citation	Title
AQR Section 00	Definitions
AQR Section 4	Control Officer
AQR Section 5	Interference with Control Officer
AQR Section 8	Persons Liable for Penalties – Punishment: Defense
AQR Section 9	Civil Penalties
AQR Section 10	Compliance Schedule
AQR Section 12.4	ATC Application and Permit Requirements for Part 70 Sources
AQR Section 12.5	Part 70 OP Requirements
AQR Section 13.2(b)(82)	NESHAP - Stationary Reciprocating Internal Combustion Engines
AQR Section 14.1(b)(3)	NSPS – Standards of Performance for Electric Utility Steam Generating Units
AQR Section 14.1(b)(40)	NSPS – Standards of Performance for Gas Turbines
AQR Section 18	Permit and Technical Service Fees
AQR Section 21	Acid Rain Continuous Emissions Monitoring
AQR Section 22	Acid Rain Permits
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 28	Fuel Burning Equipment
AQR Section 40	Prohibition of Nuisance Conditions
AQR Section 41	Fugitive Dust
AQR Section 42	Open Burning
AQR Section 43	Odors in the Ambient Air
AQR Section 70	Emergency Procedures
AQR Section 80	Circumvention

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

Citation	Title
40 CFR Part 52.21	PSD
40 CFR Part 52.1470	SIP Rules
40 CFR Part 60, Subpart A	NSPS – General Provisions
40 CFR Part 60, Subpart Da	NSPS - Standards of Performance for Electric Utility Steam Generating Units
40 CFR Part 60, Subpart GG	NSPS – Stationary Gas Turbines
40 CFR Part 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR Part 63, Subpart ZZZZ	National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 70	Federally Mandated Operating Permits
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 Emission Monitoring
40 CFR Part 82	Protection of Stratospheric Ozone

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Facility (Source) Name (from STEP 1)

Permit Requirements

STEP 3
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).

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Page 3

Sulfur Dioxide Requirements, Cont'd.**STEP 3, Cont'd.**

- (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.

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

	Silverhawk Generating Facility
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of a new certificate of representation changing the designated representative;

STEP 3, Cont'd.**Recordkeeping and Reporting Requirements, Cont'd.**

- (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.

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

Silverhawk Generating Facility
Facility (Source) Name (from STEP 1)

any other provision of the Act, including the provisions of title I of the Act relating

STEP 3, Cont'd.

Effect on Other Authorities, Cont'd.

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
Read the certification statement, sign, and date.

Certification

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 Kevin Geraghty	
Signature 	Date 11/2/2015

Rose Webster

From: Williams, Kimberly <KWilliams@nvenergy.com>
Sent: Wednesday, July 27, 2016 11:07 AM
To: Rose Webster; Geraghty, Kevin; Hopper, Don; Hawman, Forrest; Carter, Kesha; Rekowski, Dariusz; Lacy, Starla; Borino, Mark
Cc: Richard Beckstead
Subject: RE: Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station

Categories: Red Category

Rosie –

I'm confirming receipt on behalf of NV Energy.

Thanks!

Kim

From: Rose Webster [mailto:rwebster@ClarkCountyNV.gov]
Sent: Wednesday, July 27, 2016 10:43 AM
To: Geraghty, Kevin <KGeraghty@nvenergy.com>; Hopper, Don <DHopper@nvenergy.com>; Hawman, Forrest <FHawman@nvenergy.com>; Carter, Kesha <KCarter@nvenergy.com>; Rekowski, Dariusz <DRekowski@nvenergy.com>; Lacy, Starla <SLacy@nvenergy.com>; Borino, Mark <MBorino@nvenergy.com>
Cc: Williams, Kimberly <KWilliams@nvenergy.com>; Richard Beckstead <Beckstead@ClarkCountyNV.gov>
Subject: [INTERNET] Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station
Importance: High

This message originated outside of Berkshire Hathaway Energy's email system. Use caution if this message contains attachments, links or requests for information. Verify the sender before opening attachments, clicking links or providing information.

Good morning ladies and gentlemen,

Attached is the Title V Permit, TSD and FAR for the above source. The Permit and TSD should be printed and maintained on site.

If you have any questions regarding the permit, contact Cheryl Evans at 702-455-5942.

Please confirm receipt of this email.

Thank you,

Rosie Webster
Senior Office Specialist
Permitting Division
702-455-5913
rwebster@clarkcountynv.gov

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Rose Webster

From: Rekowski, Dariusz <DRekowski@nvenergy.com>
Sent: Wednesday, July 27, 2016 10:48 AM
To: Rose Webster
Subject: Read: [INTERNET] Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station
Attachments: ATT00001; ATT00002.txt; ATT00003.htm
Importance: High
Categories: Red Category

Your message

To: Rekowski, Dariusz
Subject: [INTERNET] Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station
Sent: Wednesday, July 27, 2016 10:42:50 AM (UTC-08:00) Pacific Time (US & Canada)

was read on Wednesday, July 27, 2016 10:47:58 AM (UTC-08:00) Pacific Time (US & Canada).

Rose Webster

From: Borino, Mark <MBorino@nvenergy.com>
Sent: Wednesday, July 27, 2016 11:21 AM
To: Rose Webster
Subject: Read: [INTERNET] Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station
Attachments: ATT00001; ATT00002.txt; ATT00003.htm
Importance: High
Categories: Red Category

Your message

To: Borino, Mark
Subject: [INTERNET] Department of Air Quality Title V Permit, Technical Support Document and Final Action Report for Source #01584_Silverhawk Generating Station
Sent: Wednesday, July 27, 2016 10:42:50 AM (UTC-08:00) Pacific Time (US & Canada)

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