



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

May 8, 2015

C.L. "Butch" Otter, Governor
Curt Fransen, Director

Robert Harmon, Director of Operations
Northwest Pipeline LLC - Owyhee
295 Chipeta Way
Salt Lake City, UT 84108

RE: Facility ID No. 073-00003, Northwest Pipeline LLC - Owyhee, Riddle
Final Permit Letter

Dear Mr. Harmon:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2012.0002 Project 61481 to Northwest Pipeline LLC - Owyhee located at Riddle for replacing two generators. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received February 9, 2015.

This permit is effective immediately and replaces PTC No. P-2012.0002 Project 61380 issued on June 4, 2014. This permit does not release Northwest Pipeline LLC - Owyhee from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

Pursuant to the Construction and Operation Notification General Provision of your permit, it is required that construction and operation notification be provided. Please provide this information as listed to DEQ's Boise Regional Office, 1445 N Orchard St, Boise, ID 83706, Fax (208) 373-0287.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Tom Krinke, AQ Compliance Officer, at (208) 373-0419 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Shawnee Chen at (208) 373-0502 or Shawnee.chen@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Simon".

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\SYC

Permit No. P-2012.0002 PROJ 61481

Enclosures

AIR QUALITY

PERMIT TO CONSTRUCT

Permittee Northwest Pipeline LLC - Owyhee
Permit Number P-2012.0002
Project ID 61481
Facility ID 073-00003
Facility Location Township 14 South, Range 2 West, Section 36,
22 Miles West of Riddle, ID 83604

Permit Authority

This permit (a) is issued according to the "Rules for the Control of Air Pollution in Idaho" (Rules), IDAPA 58.01.01.200–228; (b) pertains only to emissions of air contaminants regulated by the State of Idaho and to the sources specifically allowed to be constructed or modified by this permit; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho Department of Environmental Quality (DEQ) or its officers, agents, or employees assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

Date Issued May 8, 2015



Shawnee Chen, P.E., Permit Writer



Mike Simon, Stationary Source Manager

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

4SRB	4 stroke rich burn
acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AFR	air-to-fuel ratio
AIRS	Aerometric Information Retrieval System
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
bhp	brake horsepower
Btu	British thermal units
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAP	hazardous air pollutants
ICE	internal combustion engines
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSCR	nonselective catalytic reduction for rich-burn engines
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
RICE	reciprocating internal compression engine
scf	standard cubic feet
SI	spark ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per year
TAP	toxic air pollutants
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

1. PERMIT SCOPE

Purpose

- 1.1 This is a revised permit to construct (PTC) for replacing two natural-gas fired generator engines. [5/8/2015]
- 1.2 Those permit conditions that have been modified or revised by this permitting action are identified by a date citation located directly under the permit condition and on the right hand margin. [5/8/2015]
- 1.3 This PTC replaces PTC No. P-2012.0002 Project 61380 issued on June 4, 2014, the terms and conditions of which shall no longer apply. [5/8/2015]

Regulated Sources

- 1.4 Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Control
3	<u>Compressor Turbine, Unit 1:</u> Manufacturer: Solar Model: 10-T1302 Heat input rating: 12.6 MMBtu/hr Max. rated engine power: 1,121 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 12,115 scf/hr	None
	<u>Compressor Turbine, Unit 2:</u> Manufacturer: Solar Model: 10-T1302 Heat input rating: 12.6 MMBtu/hr Max. rated engine power: 1,121 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 12,115 scf/hr	None
	<u>Compressor Turbine, Unit 3:</u> Manufacturer: Solar Model: 10-T1302 Heat input rating: 12.6 MMBtu/hr Max. rated engine power: 1,121 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 12,115 scf/hr	None
	<u>Portable Backup Compressor Turbine, Unit 4:</u> Manufacturer: Solar Model: 10-T1302 Heat input rating: 12.6 MMBtu/hr Max. rated engine power: 1,121 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 12,115 scf/hr	None
4	<u>Generator Engine, Unit 5:</u> Manufacturer: Caterpillar Model: G3406 Heat input rating: 1.99 MMBtu/hr Rated engine power (design output): 231 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 1,910 scf/hr Engine type: spark ignition 4 stroke rich burn (4SRB)	NSCR catalyst

Permit Section	Source Description	Emissions Control
	<u>Generator Engine, Unit 6:</u> Manufacturer: Caterpillar Model: G3406 Heat input rating: 1.99 MMBtu/hr Rated engine power (design output): 231 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 1,910 scf/hr Engine type: spark ignition 4 stroke rich burn (4SRB)	NSCR catalyst
	<u>Emergency Generator Engine (Unit 7), emergency backup to Unit 5 and Unit 6:</u> Manufacturer: Ford Model: LSG-875 Manufacture date: 4/9/1999 Heat input rating: 1.63 MMBtu/hr Max. rated engine power: 174 brake horsepower (bhp) Fuel: natural gas Fuel consumption: 1,566 scf/hr Engine type: spark ignition 4 stroke rich burn (4SRB)	None
5	<u>Boiler, Unit 8:</u> Manufacturer: Sellers Model: 15 Commodore C-60-W Heat input rating: 2.00 MMBtu/hr Fuel: natural gas Fuel consumption: 1,923 scf/hr	None
	<u>Fuel Gas Heater, Unit 9:</u> Manufacturer: P&A Model: PA-LH-30-8.5-350-3X Heat input rating: 0.35 MMBtu/hr Fuel: natural gas Fuel consumption: 337 scf/hr	None

[5/8/2015]

2. FACILITY-WIDE CONDITIONS

Fugitive Emissions

- 2.1 All reasonable precautions shall be taken to prevent particulate matter (PM) from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:
- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
 - Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
 - Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
 - Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
 - Paving of roadways and their maintenance in a clean condition, where practical.
 - Prompt removal of earth or other stored material from streets, where practical.
- 2.2 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Visible Emissions

- 2.3 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. The provisions of IDAPA 58.01.01.625 shall not apply when the presence of uncombined water, nitrogen oxides (NO_x), and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

Air Stagnation Advisory Days

- 2.4 The permittee shall comply with the Air Pollution Emergency Rule in IDAPA 58.01.01.550-562.

Reports and Certifications

- 2.5 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit shall be submitted to the following address:

Air Quality Permit Compliance
 Department of Environmental Quality
 Boise Regional Office
 1445 North Orchard
 Boise, ID 83706-2239

Phone: (208) 373-0550
 Fax: (208) 373-0287

Open Burning

2.6 The permittee shall comply with the requirements of the Rules for Control of Open Burning, IDAPA 58.01.01.600-623.

NSPS/NESHAP General Provisions

2.7 NSPS 40 CFR 60, Subpart A – General Provisions

The permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A – General Provisions in accordance with 40 CFR 60.1. A summary of requirements for affected facilities (i.e., turbines and two Caterpillar engines) is provided in Table 2.1.

Table 2.1 NSPS 40 CFR 60, SUBPART A – SUMMARY OF GENERAL PROVISIONS

Section	Subject	Summary of Section Requirements			
60.4	Address	<ul style="list-style-type: none"> All requests, reports, applications, submittals, and other communications associated with 40 CFR 60, Subpart(s) shall be submitted to: <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"> Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101 </td> <td style="text-align: center; vertical-align: middle;">and</td> <td style="text-align: center;"> Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239 </td> </tr> </table> 	Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101	and	Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239
Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101	and	Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239			
60.7(a),(b), and (f)	Notification and Recordkeeping	<ul style="list-style-type: none"> Notification shall be furnished of commencement of construction postmarked no later than 5 days of such date in accordance with General Provision No.6.a. Notification shall be furnished of initial startup postmarked within 15 days of such date. Notification shall be furnished of any physical or operational change that may increase emissions postmarked 60 days before the change is made. Records shall be maintained of the occurrence and duration of any startup, shutdown or malfunction; any malfunction of the air pollution control equipment; or any periods during which a CMS or monitoring device is inoperative. Records shall be maintained, in a permanent form suitable for inspection, of all measurements, performance testing measurements, calibration checks, adjustments and maintenance performed, and other required information. Records shall be maintained for a period of two years following the date of such measurements, maintenance, reports, and records. 			

Section	Subject	Summary of Section Requirements
60.8	Performance Tests	<ul style="list-style-type: none"> At least 15 days prior notice of any performance test shall be provided to afford the opportunity to have an observer to be present in accordance with General Provision No.7. Within 60 days of achieving the maximum production rate, but not later 180 days after initial startup, performance test(s) shall be conducted and a written report of the results of such test(s) furnished. Performance testing facilities shall be provided as follows: <ul style="list-style-type: none"> Sampling ports adequate for test methods applicable to such facility. Safe sampling platform(s). Safe access to sampling platform(s). Utilities for sampling and testing equipment. Performance tests shall be conducted and data reduced in accordance with 40 CFR 60.8(b), (c), and (f).
60.11(a), (d), (f), and (g)	Compliance with Standards and Maintenance Requirements	<ul style="list-style-type: none"> When performance tests are required, compliance with standards is determined by methods and procedures established by 40 CFR 60.8. At all times, including periods of startup, shutdown, and malfunction, the owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
60.12	Circumvention	<ul style="list-style-type: none"> No permittee shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
60.14	Modification	<ul style="list-style-type: none"> A physical or operational change which results in an increase in the emission rate to the atmosphere or any pollutant to which a standard applies shall be considered a modification, and upon modification an existing facility shall become an affected facility in accordance with the requirements and exemptions in 40 CFR 60.14. Within 180 days of the completion of any physical or operational change, compliance with all applicable standards must be achieved.
60.15	Reconstruction	<ul style="list-style-type: none"> An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate in accordance with the requirements of 40 CFR 60.15.

[5/8/2015]

2.8 NESHAP 40 CFR 63, Subpart A – General Provisions

The permittee shall comply with the requirements of 40 CFR 63, Subpart A – General Provisions. A summary of applicable requirements for affected sources (i.e., engines) is provided in Table 2.2.

Table 2.2 NESHAP 40 CFR 63, SUBPART A – SUMMARY OF GENERAL PROVISIONS

Section	Subject	Summary of Section Requirements			
63.13	Addresses	<ul style="list-style-type: none"> <u>All requests, reports, applications, submittals, and other communications associated with 40 CFR 63, Subpart(s) shall be submitted to:</u> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%; vertical-align: top;"> Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101 </td> <td style="text-align: center; width: 10%; vertical-align: middle;">and</td> <td style="text-align: center; width: 40%; vertical-align: top;"> Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239 </td> </tr> </table> 	Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101	and	Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239
Director Air and Waste US EPA 1200 Sixth Avenue Seattle, WA 98101	and	Boise Regional Office Department of Environmental Quality 1445 North Orchard Boise, ID 83706-2239			
63.4(a)	Prohibited Activities	<ul style="list-style-type: none"> No permittee must operate any affected source in violation of the requirements of 40 CFR 63 in accordance with 40 CFR 63.4(a). No permittee subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part. 			

Section	Subject	Summary of Section Requirements
63.4(b)	Circumvention/ Fragmentation	<ul style="list-style-type: none"> • No permittee shall build, erect, install or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. • Fragmentation which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability in accordance with 40 CFR 63.4(c).
63.6(b) and (c)	Compliance Dates	<ul style="list-style-type: none"> • The permittee of any new or reconstructed source must comply with the relevant standard as specified in 40 CFR 63.6(b). <ul style="list-style-type: none"> The permittee of a source that has an initial startup before the effective date of a relevant standard must comply not later than the standard's effective date in accordance with 40 CFR 63.6(b)(1). The permittee of a source that has an initial startup after the effective date of a relevant standard must comply upon startup of the source in accordance with 40 CFR 63.6(b)(2). • The permittee of any existing sources must comply with the relevant standard by the compliance date established in the applicable subpart or as specified in 40 CFR 63.6(c). <ul style="list-style-type: none"> The permittee of an area source that increases its emissions of hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources in accordance with 40 CFR 63.6(c)(5).
63.10	Recordkeeping and Reporting Requirements	<ul style="list-style-type: none"> • The permittee shall maintain files of all required information recorded in a form suitable and readily available for expeditious inspection and review in accordance with 40 CFR 63.10(b)(1). The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. • The permittee shall maintain relevant records of the following in accordance with 40 CFR 63.10(b)(2); <ul style="list-style-type: none"> The occurrence and duration of each malfunction of operation or the required air pollution control and monitoring equipment; All required maintenance performed on the air pollution control and monitoring equipment; Actions taken during periods of malfunction when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan; Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods); All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

[5/8/2015]

Incorporation of Federal Requirements by Reference

2.9 Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein. Documents include, but are not limited to:

- Standards of Performance for New Stationary Sources (NSPS), 40 CFR Part 60
- National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP), 40 CFR Part 63

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS or NESHAP), should there be any conflict between the requirements of the permit condition and the requirements of the document, the requirements of the document shall govern, including any amendments to that regulation.

2.10 The permittee shall install “No Trespassing” signs along the property boundary to preclude public access.

3. EMISSIONS GROUP NO. 1 – FOUR SOLAR SATURN 10-T1302 TURBINES

3.1 Process Description

The facility utilizes three stationary Solar Saturn 10-T1302 turbines (Units No. 1, 2, and 3), with a connection for one portable Solar Saturn 10-T1302 turbine (Unit No. 4), to increase operating pressure of the pipeline. Each turbine has a rated power output of 1121 horsepower (hp) and a rated input capacity of 12.60 million British thermal units per hour (MMBtu/hr). The portable unit is only operated in the event of stationary unit failure. The turbines are fired exclusively on natural gas.

Table 3.1 EMISSIONS UNITES DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Four Solar Saturn 10-T1302 turbines / Unit Nos. 1, 2, 3, and 4	None	Turbine exhaust stacks

Emissions Limits

3.2 Emissions Limits

Emissions of CO from the four turbines shall not exceed 60.00 tons per any consecutive 12-month period (T/yr), inclusively.

Operating Requirements

3.3 Turbine Operation Restriction

The permittee shall not operate more than three turbines at the facility at any given time.

3.4 Fuel Restriction

The turbines shall be fired exclusively on natural gas.

3.5 Turbine Load Requirement

The turbines shall be operated at a gas producer speed of 80% or greater except during periods of startup, shutdown, and load change.

3.6 Inspection Requirement

At least once per year, or as needed during operation, the turbines shall be inspected for physical degradation that could adversely affect combustion performance of the units. The permittee shall make all necessary repairs to the turbines to ensure efficient operation.

Monitoring and Recordkeeping Requirements

3.7 Turbine Operation Monitoring Requirement

The permittee shall monitor and record which of the turbines is in operation at all times. The records shall clearly indicate the timeframes when each turbine is in operation, sufficient to determine compliance with Permit Condition 3.3. The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any onsite inspection.

3.8 Turbine Load Monitoring Requirements

The permittee shall monitor and record the range of gas producer speed, including periods of startup, shutdown, and load change, for each turbine in operation. The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any onsite inspection.

3.9 Inspection Recordkeeping Requirement

The permittee shall keep records of all inspections conducted in accordance with Permit Condition 3.6. The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any on-site inspection.

Turbine Replacement

3.10 Operating Requirements for Turbine Replacement

The replacement unit shall meet the following requirements:

- The emissions, throughput, and horsepower of the replacement turbine shall not exceed the emission limits, throughput limits, and horsepower of the existing unit.
- The stack height of the replacement turbine shall not be less than the stack height of the existing unit.
- The stack diameter of the replacement turbine shall not be greater than the stack diameter of the existing unit.
- The stack location of the replacement turbine shall be the same as the stack location of the existing unit.

3.11 Federal Regulation Review

For each replacement turbine, the permittee shall review NSPS and NESHAP to identify applicable requirements and comply with the requirements. The permittee shall use DEQ Form FRA or DEQ approved alternative to complete the review.

If the requirements that apply to the replacement unit are not specified in the permit, the permittee shall submit a PTC application for including these requirements in the permit prior to the unit replacement.

3.12 Notification and Recordkeeping

The permittee shall notify DEQ of each turbine replacement at least 30 days before the change out, or in emergency situations where the permittee does not know 30 days in advance, within two days of determining that a change out is required.

Each time a turbine is replaced, the permittee shall record the following information:

- Date the change out occurred.
- Identify the replaced turbine and replacement turbine by make, model, serial number, location, and turbine construction/reconstruction/modified date.
- Documentation showing that the permittee is in compliance with the turbine replacement operating requirements specified in Permit Condition 3.10.
- Federal regulation review as required in Permit Condition 3.11.

The permittee shall maintain the above information and make it available to DEQ representative upon request.

40 CFR 60 Subpart KKKK—Standards of Performance for Stationary Combustion Turbines (Apply to Turbine Units 1 and 2)

Applicability

3.13 NSPS 40 CFR 60 Subpart KKKK - § 60.4305 Applicability

In accordance with 40 CFR 60.4305(a), turbine units 1 and 2 are subject to requirements of 40 CFR 60, Subpart KKKK because turbine units 1 and 2 are each with a heat input at peak load greater than 10 MMBtu per hour and reconstructed after February 18, 2005 (i.e., 2012)

In accordance with 40 CFR 60.4305(b), turbine units 1 and 2 are exempt from the requirements of 40 CFR 60 Subpart GG because they are subject to 40 CFR 60 Subpart KKKK.

Emission Limits

3.14 NSPS 40 CFR 60 Subpart KKKK - § 60.4320 NO_x Emissions Limit

In accordance with 40 CFR 60.4320 and Table 1 of the subpart, for turbine units 1 and 2, each turbine shall meet the NO_x emission limit of 150 ppm at 15% O₂ or 8.7 pounds per megawatt-hour (lb/MWh).

3.15 NSPS 40 CFR 60 Subpart KKKK - § 60.4330 SO₂ Emissions Limit

In accordance with 40 CFR 60.4330, the permittee shall not burn in turbine units 1 and 2 any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO₂/MMBtu heat input.

General Compliance Requirements

3.16 NSPS 40 CFR 60 Subpart KKKK - § 60.4333 General Requirements

In accordance with 40 CFR 60.4333, the permittee shall operate and maintain turbine units 1 and 2, 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.

Monitoring

3.17 NSPS 40 CFR 60 Subpart KKKK - § 60.4340(a) NO_x Compliance Method – Source Test and Test Frequency

In accordance with 40 CFR 60.4340(a), for turbine units 1 and 2, the permittee shall perform annual performance tests in accordance with 40 CFR 60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, the permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results

of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, the permittee shall resume annual performance tests.

3.18 NSPS 40 CFR 60 Subpart KKKK - § 60.4365 SO₂ Compliance Method – Retain Records

In accordance with 40 CFR 60.4365, for turbine units 1 and 2, the permittee shall retain records of fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying that the total sulfur content is 20 grains of sulfur or less per 100 standard cubic feet.

Reporting

3.19 NSPS 40 CFR 60 Subpart KKKK - § 60.4375 Reporting

In accordance with 40 CFR 60.4375, for each affected unit that performs annual performance tests in accordance with 40 CFR 60.4340(a), the permittee shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

Performance Tests

3.20 NSPS 40 CFR 60 Subpart KKKK - § 60.4400 NO_x Initial and Subsequent Performance Tests

In accordance with 40 CFR 60.4400, the permittee shall conduct an initial performance test, as required in 40 CFR 60.8. Subsequent NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test), or in accordance with 40 CFR 60.4340(a). The permittee shall conduct an initial and subsequent NO_x performance tests using the methods specified in 40 CFR 60.4400.

40 CFR 60 Subpart GG — Standards of Performance for Stationary Gas Turbines (Apply to Turbine Units 3 and 4)

Applicability

3.21 NSPS 40 CFR 60 Subpart GG - § 60.330 Applicability

In accordance with 40 CFR 60.330, turbine units 3 and 4 are subject to requirements of 40 CFR 60, Subpart GG because turbine units 3 and 4 are each with a heat input at peak load greater than 10 MMBtu per hour and commenced construction after October 3, 1977.

3.22 NSPS 40 CFR 60 Subpart GG - § 60.332(a)(2) & (c) NO_x Emissions Limit

On and after the date on which the performance test required by 40 CFR 60.8 is completed, the permittee shall not discharge into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of 0.015% by volume (150 ppm) at 15% oxygen and on a dry basis in accordance with 40 CFR 60.332(a)(2).

3.23 NSPS 40 CFR 60 Subpart GG - § 60.333(b) Fuel Sulfur Content Restriction

Fuel with a sulfur content greater than 0.8% by weight shall not be combusted in the turbines, as required by 40 CFR 60.333(b).

3.24 NSPS 40 CFR 60 Subpart GG - § 60.334(c) & (e) Monitoring of Operations for NO_x

In accordance with 40 CFR 60.334 (c), for any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_x emissions, if the permittee has previously submitted and received EPA, State, or local permitting authority approval of a procedure for monitoring compliance with the applicable NO_x emission limit under 40 CFR 60.332, that approved procedure may continue to be used.

The previous approved procedure includes the requirements in Permit Conditions 3.4, .3.5, 3.6, 3.7, 3.8, and 3.9.

3.25 NSPS 40 CFR 60 Subpart GG - § 60.334(h)(3) Monitoring of Operations for SO₂

In accordance with 40 CFR 60.334(h)(3), to demonstrate that the gaseous fuel meets the definition of natural gas in 40 CFR 60.331(u), the permittee shall maintain the following information:

- The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less.

3.26 NSPS 40 CFR 60 Subpart GG - § 60.335 Test Methods and Procedures

The permittee shall conduct the NO_x performance tests required in 40 CFR 60.8 in accordance with 40 CFR 60.335.

4. EMISSIONS GROUP NO. 2 – THREE GENERATOR ENGINES

4.1 Process Description

The facility will replace the two Cummins GTA-12 generators with the two Caterpillar G3406 generators. The facility has one Ford emergency generator. One Caterpillar G3406 generator is used to generate electricity for the facility. The other identical Caterpillar G3406 generator is a standby unit. Ford emergency generator is an emergency backup unit for the two Caterpillar G3406 generators. Each Caterpillar G3406 generator has a rated design power output of 231 bhp with a rated input capacity of 1.99 MMBtu/hr. Ford emergency generator has a rated power output of 174 hp with a rated input capacity of 1.63 MMBtu/hr.

[5/8/2015]

Emissions Control

The G3406 packages will be equipped with nonselective catalytic reduction (NSCR) catalyst elements to control emissions.

[5/8/2015]

Table 4.1 EMISSIONS GROUP NO. 2 DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Two Caterpillar G3406 generator engines / Unit Nos. 5 and 6	NSCR catalyst	Generator exhaust stacks
Ford LSG-875 emergency generator (Unit 7)	None	Generator exhaust stack

[5/8/2015]

Emissions Limits

4.2 Emissions Limit

Total CO emissions from the two Caterpillar generator engines shall not exceed 4.46 T/yr.

[5/8/2015]

The CO emissions from the Ford emergency generator shall not exceed 1.51 T/yr.

Operating Requirements

4.3 Fuel Restriction

The generator engines shall be fired exclusively on natural gas.

4.4 Generator Engine Operation

Except during periods of load transfer and equipment maintenance, the permittee shall not operate more than one of the Caterpillar generator engines at the facility at any given time.

[5/8/2015]

4.5 Inspection Requirement

At least once per year, or as needed during operation, the generators shall be inspected for physical degradation that could adversely affect combustion performance of the units. The permittee shall make all necessary repairs to the generators to ensure efficient operation.

Monitoring and Recordkeeping Requirements

4.6 Generator Operation Monitoring Requirement

Each month, the permittee shall monitor and record the monthly operating hours and the annual operating hours based on rolling 12 months for each engine. The permittee shall calculate the annual emissions to determine compliance with Permit Condition 4.2. The annual emissions of each engine shall be calculated by multiplying the annual operating hours based on rolling 12 months with the emissions factors in lb/hr. The emission factors shall be developed based on DEQ-approved source test or DEQ-approved alternatives.

The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any onsite inspection.

[5/8/2015]

4.7 Inspection Recordkeeping Requirement

The permittee shall keep records of all inspections conducted in accordance with Permit Condition 4.5. The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any onsite inspection.

40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

4.8 Affected Source - 40 CFR 63.6590

In accordance with 40 CFR 63.6590, the Ford LSG-875 emergency generator engine is an existing stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions.

[5/8/2015]

4.9 Compliance Date - 40 CFR 63.6595

In accordance with 40 CFR 63.6595, for an existing stationary spark ignition RICE located at an area source of HAP emissions, the permittee shall comply with the applicable requirements no later than October 19, 2013.

4.10 Operating Requirements - 40 CFR 63.6603

In accordance with 40 CFR 63.6603(a), for Ford LSG-875 emergency generator, the permittee shall comply with the requirements of item No. 5 in Table 2d to 40 CFR 63 Subpart ZZZZ. They are listed as follows:

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in 40 CFR 63.6625(i) or Permit Condition 4.12.4 in order to extend the specified oil change requirement in Table 2d of this subpart;
- b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[5/8/2015]

4.11 General Compliance Requirements - 40 CFR 63.6605

In accordance with 40 CFR 63.6605(b), the permittee at all times shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The

general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[5/8/2015]

4.12 Installation, Operation, and Maintenance Requirements - 40 CFR 63.6625

- 4.12.1 In accordance with 40 CFR 63.6625 (e) or 63.6640 (a), the permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop the permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- 4.12.2 In accordance with 40 CFR 63.6625 (f), the permittee shall install a non-resettable hour meter if one is not already installed.
- 4.12.3 In accordance with 40 CFR 63.6625 (h), the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
- 4.12.4 In accordance with 40 CFR 63.6625 (j), the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2d to this subpart (in Permit Condition 4.10 or 40 CFR 63.6603.) The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

4.13 Demonstrate Continuous Compliance - 40 CFR 63.6640

- 4.13.1 In accordance with 40 CFR 63.6640(e), the permittee shall report each instance in which the permittee did not meet the General Provisions to 40 CFR 63 Subpart ZZZZ in Table 8 that apply to the permittee.
[5/8/2015]
- 4.13.2 In accordance with 40 CFR 63.6640(f), the permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 63.6640 (f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.
 - In accordance with 40 CFR 63.6640(f)(1), there is no time limit on the use of emergency stationary RICE in emergency situations.

- In accordance with 40 CFR 63.6640(f)(2), the permittee shall operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR 63.6640(f) (2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2).
 - (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - (ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 40 CFR 63.6640(f)(3) does not apply.
- In accordance with 40 CFR 63.6640(f)(4), emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[5/8/2015]

4.14 Reporting Requirements - 40 CFR 63.6650

In accordance with 40 CFR 63.6650(h), each emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), the permittee shall submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3).

- In accordance with 40 CFR 63.6650(h)(1), the report must contain the following information:
 - (i) Company name and address where the engine is located.
 - (ii) Date of the report and beginning and ending dates of the reporting period.
 - (iii) Engine site rating and model year.
 - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - (v) Hours operated for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii).
 - (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii).

- In accordance with 40 CFR 63.6650(h)(2), the first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- In accordance with 40 CFR 63.6650(h)(3), the annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.

[5/8/2015]

4.15 Recordkeeping Requirements - 40 CFR 63.6655 Type of Records

- 4.15.1 In accordance with 40 CFR 63.6655(e), the permittee shall keep the records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan.
- 4.15.2 In accordance with 40 CFR 63.6655(f), the permittee shall keep the records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii) (Permit Condition 4.13.2), the permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

[5/8/2015]

4.16 Recordkeeping Requirements - 40 CFR 63.6660 Format and Recordkeeping Length

In accordance with 40 CFR 63.6660,

- The records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).
- As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- The permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

4.17 Applicable General Provisions - 40 CFR 63.6665

In accordance with 40 CFR 63.6665, the permittee is subject to Table 8 to 40 CFR Subpart ZZZZ that shows which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply.

40 CFR 60 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

4.18 40 CFR 60.4230 Applicability

In accordance with 40 CFR 60.4230(a)(4)(iii), the permittee is subject to 40 CFR 60 Subpart JJJJ for the two Caterpillar G3406 generator engines with engine power less than 500 hp and manufactured after January 1, 2011.

[5/8/2015]

4.19 40 CFR 60.4233 Emission Standards

In accordance with 40 CFR 60.4233(e), the permittee shall comply with the emission standards in Table 1 of 40 CFR 60 Subpart JJJJ for the two Caterpillar G3406 generator engines - stationary spark ignition (SI) internal combustion engines (ICE) with a maximum engine power greater than or equal to 75 KW (100 HP).

Table 1 to 40 CFR Subpart JJJJ—NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC	NO _x	CO	VOC
Non-Emergency SI Natural Gas Fired	100≤HP<500	1/1/2011	1.0	2.0	0.7	82	270	60

[5/8/2015]

4.20 40 CFR 60.4234 Compliance Time Frame

In accordance with 40 CFR 60.4234, the permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine.

[5/8/2015]

4.21 40 CFR 60.4236 Deadline for Installing Stationary SI ICE Produced in Previous Model Years

In accordance with 40 CFR 60.4236(a), after July 1, 2010, the permittee may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the emissions standards in 40 CFR 60.4233(e) (i.e., Permit Condition 4.19).

[5/8/2015]

4.22 40 CFR 60.4243 Compliance Requirements

4.22.1 In accordance with 40 CFR 60.4243(b), the permittee shall demonstrate compliance with emissions standards specified in 40 CFR 60.4233(e) according to one of the methods specified in 40 CFR 60.4243(b)(1) and (2) as follows:

- In accordance with 40 CFR 60.4243(b)(1), purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a)(1) and (2) as follows:
 - If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to the permittee. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance, accordance with 40 CFR 60.4243(a)(1).
 - If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee shall demonstrate compliance according to 40 CFR 60.4243(a)(2)(ii) as follows, accordance with 40 CFR 60.4243(a)(2).
 - The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test within 1 year of engine startup to demonstrate compliance, according to 40 CFR 60.4243(a)(2)(ii).

- In accordance with 40 CFR 60.4243(b)(2), purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(e) and according to the requirements specified in 40 CFR 60.4244 for performance test, and according to 40 CFR 60.4243(b)(2)(i) as follows:
 - The permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance.

4.22.2 In accordance with 40 CFR 60.4243(f), if the permittee purchases a non-certified engine or does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing, but is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

4.22.3 In accordance with 40 CFR 60.4243(g), it is expected that air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

[5/8/2015]

4.23 40 CFR 60.4244 Testing Requirements

In accordance with 40 CFR 60.4244, the permittee who conducts performance tests must follow the procedures in 40 CFR 60.4244(a) through (f).

- In accordance with 40 CFR 60.4244(a), each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to this subpart.

Table 2 to 40 CFR 60 Subpart JJJJ—Requirements for Performance Tests

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to 40 CFR 60.4244.	a. limit the concentration of NO _x in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for NO _x , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter <i>and</i> the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(c) Measurements to determine moisture must be made at the same time as the measurement for NO _x concentration.
		v. Measure NO _x at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust.	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for CO, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.
		v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03	(d) Results of this test consist of the average of the three 1-hour or longer runs.

- In accordance with 40 CFR 60.4244(b), the permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If the stationary SI internal combustion engine is non-operational, the permittee does not need to startup the engine

solely to conduct a performance test; however, the permittee shall conduct the performance test immediately upon startup of the engine.

- In accordance with 40 CFR 60.4244(c), the permittee shall conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- In accordance with 40 CFR 60.4244(d), to determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of 40 CFR 60.4244:

$$ER = \frac{C_a \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_a = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- In accordance with 40 CFR 60.4244(e), to determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of 40 CFR 60.4244:

$$ER = \frac{C_a \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- In accordance with 40 CFR 60.4244(f), for purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of 40 CFR 60.4244:

$$ER = \frac{C_a \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10⁻³ = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.
 HP-hr = Brake work of the engine, in HP-hr.

[5/8/2015]

4.24 40 CFR 60.4245 Notification, Reports, And Records

In accordance with 40 CFR 60.4245, the permittee shall meet the following notification, reporting and recordkeeping requirements.

- In accordance with 40 CFR 60.4245(a), the permittee shall keep records of the information in paragraphs 40 CFR 60.4245(a)(1) through (4):
 - (1) All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
 - (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
 - (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.
- The permittee that are subject to performance testing shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed, in accordance with 40 CFR 60.4245(d).

[5/8/2015]

4.25 40 CFR 60.4246 General Provisions

In accordance with 40 CFR 60.4246, the permittee shall comply with General Provisions in Table 3 to 40 CFR 60 Subpart JJJJ.

Table 3 to 40 CFR 60 Subpart JJJJ—Applicability of General Provisions to Subpart JJJJ

General provisions citation	Subject of citation	Applies to subpart	Explanation
40 CFR 60.1	General applicability of the General Provisions	Yes	
40 CFR 60.2	Definitions	Yes	Additional terms defined in 40 CFR 60.4248.
40 CFR 60.3	Units and abbreviations	Yes	
40 CFR 60.4	Address	Yes	
40 CFR 60.5	Determination of construction or modification	Yes	
40 CFR 60.6	Review of plans	Yes	
40 CFR 60.7	Notification and Recordkeeping	Yes	Except that 40 CFR 60.7 only applies as specified in 40 CFR 60.4245.
40 CFR 60.8	Performance tests	Yes	Except that 40 CFR 60.8 only applies to owners and operators who are subject to performance testing in 40 CFR 60 subpart JJJJ.

General provisions citation	Subject of citation	Applies to subpart	Explanation
40 CFR 60.9	Availability of information	Yes	
40 CFR 60.10	State Authority	Yes	
40 CFR 60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in 40 CFR 60 subpart JJJJ.
40 CFR 60.12	Circumvention	Yes	
40 CFR 60.14	Modification	Yes	
40 CFR 60.15	Reconstruction	Yes	
40 CFR 60.16	Priority list	Yes	
40 CFR 60.17	Incorporations by reference	Yes	
40 CFR 60.19	General notification and reporting requirements	Yes	

[5/8/2015]

5. EMISSIONS GROUP NO. 3 – ONE SELLERS BOILER AND ONE P&A FUEL GAS HEATER

5.1 Process Description

The facility utilizes one Sellers boiler with a rated input capacity of 2.00 MMBtu/hr to heat the facility and one P&A fuel heater with a rated heat input capacity of 0.35 MMBtu/hr to heat fuel gas for the turbines.

Table 5.1 EMISSIONS GROUP NO. 3 DESCRIPTION

Emissions Unit(s) / Process(es)	Emissions Control Device	Emissions Point
Sellers boiler / Emissions Unit No. 8	None	Boiler exhaust stack
P&A fuel gas heater/Emissions Unit No. 9	None	Heater exhaust stack

Emissions Limits

5.2 Emissions Limits

Emissions of CO from sources in Emissions Group No. 3 shall not exceed any corresponding emissions rate limits listed in Table 5.2.

Table 5.2 EMISSIONS GROUP NO. 3 EMISSIONS LIMITS

Source Description	CO
	T/yr
Sellers boiler	0.73
P&A fuel gas heater	0.13

5.3 Particulate Matter Emissions Limit for Fuel Burning Equipment

The permittee shall not discharge to the atmosphere from the boiler or gas heater, PM in excess of 0.015 grains per dry standard cubic foot (gr/dscf) of effluent gas corrected to 3% oxygen by volume for gas.

Operating Requirements

5.4 Fuel Restriction

The boiler and gas heater shall be fired exclusively on natural gas.

5.5 Inspection Requirement

At least once per year, or as needed during operation, the boiler and gas heater shall be inspected for physical degradation that could adversely affect combustion performance of the units. The permittee shall make all necessary repairs to the boiler to ensure efficient operation.

Monitoring and Recordkeeping Requirements

5.6 Inspection Recordkeeping Requirement

The permittee shall keep records of all inspections conducted in accordance with Permit Condition 5.5. The records shall be maintained in accordance with General Provision No.10 and shall be made available to DEQ representatives for any onsite inspection.

6. SUMMARY OF EMISSIONS LIMITS

Table 6.1 provides a summary of the allowable emissions from this facility.

Table 6.1 SUMMARY OF ALLOWABLE EMISSIONS^{a,b}

Source Description	CO
	T/yr
Four Solar Saturn 10-T1302 turbines ^c	60.00
Two Cummins generator engines ^d	4.46
Ford emergency generator	1.51
Sellers boiler	0.73
P&A fuel gas heater	0.13

^a As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

^b As determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

^c Emissions limit reflects only three turbines in operation at one time.

^d Emissions limit reflects emission rate of worst-case generator engine at stand-alone operation.

7. GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the “Rules for the Control of Air Pollution in Idaho.” The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit, the “Rules for the Control of Air Pollution in Idaho,” and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

2. The permittee shall at all times (except as provided in the “Rules for the Control of Air Pollution in Idaho”) maintain in good working order and operate as efficiently as practicable all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]

3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
 - Enter upon the permittee’s premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
 - Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

5. This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

6. The permittee shall furnish DEQ written notifications as follows:
 - A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;
 - A notification of the date of any suspension of construction, if such suspension lasts for one year or more;

- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

7. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.
8. All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.
9. Within 30 days, or up to 60 days when requested following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

10. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

11. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

12. All documents submitted to DEQ—including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification—shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

13. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

14. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

15. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

16. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.211, 5/1/94]