



Bureau of Air Pollution Control

901 SOUTH STEWART STREET SUITE 4001

CARSON CITY, NEVADA 89701-5249

p: 775-687-9350 • www.ndep.nv.gov/bapc

Facility ID No. A0375

Permit No. AP4911-0457.03

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: SIERRA PACIFIC POWER COMPANY (DBA NV ENERGY) – NORTH VALMY GENERATING STATION (HEREINAFTER REFERRED TO AS PERMITTEE)

Mailing Address: 6226 WEST SAHARA AVENUE, MS #25, P.O. BOX 98910, LAS VEGAS, NEVADA 89151-001

Physical Address: 23755 TREATY HILL ROAD, VALMY, NEVADA 89438

Driving Directions: APPROXIMATELY 4 MILES NORTH OF INTERSTATE HIGHWAY 80

General Facility Location:
SECTIONS 20, 21, 28, & 29, T 35 N, R 43 E, MDB&M
HA 64 – CLOVERS AREA/HUMBOLDT COUNTY
NORTH 4,529,390 M, EAST 487,280 M, UTM ZONE 11, NAD 83

Emission Unit List:

A. System 01 – Unit #1 Boiler (REVISED 08/2025, Air Case 12118)

S2.001 Babcock & Wilcox balanced draft, dry bottom, opposed wall fired geometry boiler, model # FM 9-30 OF-36, serial # 82-7501, Commencement of Construction: September 20, 1977

A2. System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing) (REVISED 02/2026, Air Case 12720)

S2.001A Unit #1 Boiler (Manufactured by Babcock & Wilcox; Model FM 9-30 OF-36; Serial 82-7501; Date Sep 20, 1977; Max Heat Input 2,708 MMBtu/hr)

B. System 02 – Unit #2 Boiler (REVISED 08/2025, Air Case 12118)

S2.002 Foster Wheeler balanced draft, dry bottom, single wall fired geometry boiler, model # Monowall, serial # 85-8051, Commencement of Construction: April 11, 1979

B2. System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing) (REVISED 02/2026, Air Case 12720)

S2.002A Unit #2 Boiler (Manufactured by Foster Wheeler; Model Monowall; Serial 85-8051; Date Apr 11, 1979; Max Heat Input 3,048 MMBtu/hr)

C. System 03A – Coal Handling System A (REVISED 05/2015)

S2.003 Rotary Stacker and associated conveyors, Engineered by Watkins Engineering

D. System 03B – Coal Handling System B (REVISED 05/2015) Replaces S2.004

S2.031 Conveyor 3, Engineered by Stone & Webster
S2.032 Conveyor 7A, Engineered by Stone & Webster

E. System 03C – Coal Handling System C (REVISED 05/2015)

S2.005 Reclaim Area Hopper and associated conveyors, Engineered by Stone & Webster

F. System 03D – Coal Handling System D (REVISED 05/2015)

S2.006 Crusher Tower and associated conveyors, Engineered by Pennsylvania Crusher Corporation

G. System 03E – Coal Handling System E (REVISED 05/2015) Replaces S2.007

S2.033 Conveyor 5A, Engineered by Stone & Webster
S2.034 Conveyor 5B, Engineered by Stone & Webster

H. System 03F – Coal Handling System F

S2.008 Tripper Area Hopper and associated conveyors, Engineered by Stone & Webster

Emission Unit List (continued):



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I. System 03G – Coal Handling System G

- S2.009 #1 Unit Coal Silos A & B (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)
- S2.010 #1 Unit Coal Silos C & D (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)
- S2.011 #2 Unit Coal Silos A & B (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)
- S2.012 #2 Unit Coal Silos C & D (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)

J. Reserved

K. System 04A – Circulating Water Treatment System A (Soda Ash Storage 20' (H) x 12' (W)) (REVISED 05/2015)

- S2.013 Unit #1 Soda Ash Storage Bin Loading
- PF1.001 Unit #1 Soda Ash Storage Bin Unloading

L. System 04B – Circulating Water Treatment System A (Magnesium Oxide Storage Bin, 20' (H) x 12' (W)) (REVISED 05/2015)

- S2.014 Unit #1 Magnesium Oxide Storage Bin Loading
- PF1.002 Unit #1 Magnesium Oxide Storage Bin Unloading

M. System 05A – Circulating Water Treatment System B (Soda Ash Storage Bin, 26' (H) x 12' (W)) (REVISED 05/2015)

- S2.015 Unit #2 Soda Ash Storage Bin Loading
- PF1.003 Unit #2 Soda Ash Storage Bin Unloading

N. System 05B – Circulating Water Treatment B (Magnesium Oxide Storage Bin, 26' (H) x 12' (W)) (REVISED 05/2015)

- S2.016 Unit #2 Magnesium Oxide Storage Bin Loading
- PF1.004 Unit #2 Magnesium Oxide Storage Bin Unloading

O. System 06 – Fly Ash Handling System (Unit #1 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)

- S2.017 Unit #1 Fly Ash Silo Loading
- PF1.005 Unit #1 Fly Ash Silo Unloading

P. System 06A – Fly Ash Handling System: Alternate Operating Scenario Dust Collector Unloading (Unit #1 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)

- S2.017 Unit #1 Fly Ash Silo Loading
- PF1.005 Unit #1 Fly Ash Silo Unloading

Q. System 07 – Fly Ash Handling System (Unit #2 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)

- S2.018 Unit #2 Fly Ash Silo Loading
- PF1.006 Unit #2 Fly Ash Silo Unloading

R. System 07A – Fly Ash Handling System: Alternate Operating Scenario Dust Collector Unloading (Unit #2 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)

- S2.018 Unit #2 Fly Ash Silo Loading
- PF1.006 Unit #2 Fly Ash Silo Unloading

S. System 08A – Unit #2 Lime Scrubber System A (Scrubber - Loop 1 Day Storage Bin, 35 ton capacity) (REVISED 05/2015)

- S2.019 Loop 1 Lime Day Storage Bin Loading
- PF1.007 Loop 1 Lime Day Storage Bin Unloading

T. System 08B – Unit #2 Lime Scrubber System A (Scrubber - Loop 2 Lime Day Storage Bin, 35 ton capacity) (REVISED 05/2015)

- S2.020 Loop 2 Lime Day Storage Bin Loading
- PF1.008 Loop 2 Lime Day Storage Bin Unloading

Emission Unit List (continued):



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U. System 09A – Unit #2 Lime Scrubber System B (Scrubber – Loop 1 Recycle Ash Day, 50 ton capacity) (REVISED 05/2015)

S2.021 Loop 1 Recycle Ash Day Storage Bin Loading
PF1.009 Loop 1 Recycle Ash Day Storage Bin Unloading

V. System 09B – Unit #2 Lime Scrubber System B (Scrubber - Loop 2 Recycle Ash Day Storage Bin, 50 ton capacity) (REVISED 05/2015)

S2.022 Loop 2 Recycle Ash Day Storage Bin Loading
PF1.010 Loop 2 Recycle Ash Day Storage Bin Unloading

W. System 10A – Unit #2 Lime Scrubber System C (West Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity) (REVISED 05/2015)

S2.023 West Lime Storage Silo Loading
PF1.011 West Lime Storage Silo Unloading

X. System 10B – Unit #2 Lime Scrubber System C (East Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity) (REVISED 05/2015)

S2.024 East Lime Storage Silo Loading
PF1.012 East Lime Storage Silo Unloading

Y. System 11 – Cooling Tower System for Unit #1 Boiler

PF1.015 SPX 8-Cell Cooling Tower; Wet-Draft, Cross-Flow

Z. System 12 – Cooling Tower System (REVISED 09/2019)

PF1.014 Unit #2 Cooling Tower, Manufactured by SPX (6-Celled, Wet Draft, Counter Flow)

AA. System 13 – Fuel Oil Storage Tank

S2.025 Fuel Oil Storage Tank, Vertical Fixed Roof, 150,000 gallon capacity

AB. System 14 – Auxiliary Boiler

S2.026 Babcock & Wilcox oil-fired package boiler, model # FM 103-88, serial # NA

AC. System 15 – Emergency Diesel Fire Pumps

S2.027 Emergency Diesel Fire Pump, 227 HP Output
S2.028 Emergency Diesel Fire Pump, 227 HP Output

AD. System 16 – Emergency Diesel Generator #1 (REVISED 1/2024)

S2.029 Emergency Diesel Generators, 375 HP Output (REMOVED 1/2024)
S2.037 Emergency Diesel Generator (539 HP, CAT, Model C13) (ADDED 1/2024)

AE. System 17 – Emergency Diesel Generator #2

S2.030 Emergency Diesel Generators, 600 HP Output

AF. System 18 – 1A North DSI Lime Silo (REVISED 09/2019)

S2.035 1A North DSI Lime Silo Loading
PF1.016 1A North DSI Lime Silo Unloading

AG. System 19 – 2B South DSI Lime Silo (REVISED 09/2019)

S2.036 2B South DSI Lime Silo Loading
PF1.017 2B South DSI Lime Silo Unloading

Emission Unit List (continued):



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AH. System 20 – Unit #3 Combustion Turbine (General Electric) (ADDED XX/2026, Air Case 12313)

S2.038

Unit #3 Combustion Turbine (Manufactured by General Electric; Model F7.FA; commence construction 2026; Max Heat Input 2,153 MMBtu/hr)

AI. System 21 – Unit #4 Combustion Turbine (General Electric) (ADDED XX/2026, Air Case 12313)

S2.039

Unit #4 Combustion Turbine (Manufactured by General Electric; Model F7.FA; commence construction 2026; Max Heat Input 2,153 MMBtu/hr)

AJ. System 22 – Unit #5 1,750 kWe Emergency Diesel Generator (ADDED XX/2026, Air Case 12313)

S2.040

Unit #5 Emergency Diesel Generator (engine rated at 2,584 hp; manufactured by Caterpillar; model 3512C; year 2027)

AK. System 23 – Unit #6 176 HP Emergency Fire Water Pump Engine (ADDED XX/2026, Air Case 12313)

S2.041

Unit #6 Emergency Diesel Fire Water Pump Engine (176 hp; manufactured by John Deere; model UFAD58; year 2027)

*****End of Emission Unit List*****

DRAFT



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Section I. General Conditions

A. Nevada Administrative Code (NAC) 445B.315.3(c) Part 70 Program

Severability

Each of the conditions and requirements of this Operating Permit is severable and, if any are held invalid, the remaining conditions and requirements continue in effect.

B. Nevada Revised Statute (NRS) 445B.470.1 (State Only Requirement)

Prohibited Acts

The Permittee shall not knowingly:

1. Violate any applicable provision, the terms or conditions of any permit or any provision for the filing of information;
2. Fail to pay any fee;
3. Falsify any material statement, representation or certification in any notice or report; or
4. Render inaccurate any monitoring device or method, required pursuant to the provisions of NRS 445B.100 to 445B.450, inclusive, or NRS 445B.470 to 445B.640, inclusive, or any regulation adopted pursuant to those provisions.

C. NAC 445B.22013 (State Only Requirement)

Prohibited Discharge

The Permittee shall not cause or permit the discharge into the atmosphere from any stationary source of any hazardous air pollutant or toxic regulated air pollutant that threatens the health and safety of the general public, as determined by the Director.

D. NAC 445B.225 (Federally Enforceable SIP Requirement)

Prohibited Conduct: Concealment of Emissions

The Permittee shall not install, construct, or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.

E. NAC 445B.315.3(d) Part 70 Program

Compliance/Noncompliance

The Permittee shall comply with all conditions of this Operating Permit. Any noncompliance constitutes a violation and is grounds for:

1. An action for noncompliance;
2. Modifying, revoking, reopening and revising, or terminating the Operating Permit; or
3. Denial of an application for a renewal of the Operating Permit.

F. NAC 445B.273.1 (State Only Requirement)

Schedules for Compliance

The Permittee shall comply with NAC 445B.001 through 445B.3689, inclusive. Existing stationary sources are in compliance with those sections and may continue to operate under the provisions of their approved compliance schedules, which may be amended from time to time.

G. RESERVED



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Section I. General Conditions (continued)

H. NAC 445B.315.3(e) Part 70 Program

The need to halt or reduce activity to maintain compliance with the conditions of this Operating Permit is not a defense to noncompliance with any conditions of this Operating Permit.

I. NAC 445B.315.3(f) Part 70 Program

The Director may revise, revoke and reissue, reopen and revise, or terminate the operating permit for cause.

J. NAC 445B.325 Part 70 Program

Termination, reopening and revision, modification, and revocation and reissuance

1. A Class I operating permit must be reopened and revised to incorporate any additional applicable requirement adopted pursuant to the Act if, on the effective date of the applicable requirement, the operating permit has a remaining term of 3 or more years. The reopening must be completed no later than 18 months after the effective date of the applicable requirement.
2. An operating permit may be terminated, reopened and revised, modified, or revoked and reissued if:
 - a. The Director or the Administrator determines that the operating permit contains a material mistake or is based on inaccurate statements;
 - b. The Director or the Administrator determines that the operating permit, as written, does not ensure compliance with all applicable requirements; or
 - c. The Director determines that there has been a violation of any of the provisions of NAC 445B.001 to 445B.3689, inclusive, any applicable requirement, or any condition contained in the operating permit.

K. NAC 445B.3265 (State Only Requirement)

Revocation and reissuance

1. The Permittee's operating permit may be revoked if the control equipment is not operating.
2. The Permittee's operating permit may be revoked by the Director upon determination that there has been a violation of NAC 445B.001 to 445B.3689, inclusive, or the provisions of 40 CFR Part 52.21, or 40 CFR Part 60 or 61, Prevention of Significant Deterioration, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants adopted by reference in NAC 445B.221.
3. The revocation is effective 10 days after the service of a written notice, unless a hearing is requested.

L. SIP 445.715 (Federally Enforceable SIP Requirement)

Operating Permits: Revocation

1. The Permittee's operating permit may be revoked if the control equipment is not operating.
2. The Permittee's operating permit can be revoked by the Director upon determination that there has been a violation of SIP 445.430 to 445.846, inclusive, or 40 CFR Parts 60 or 61, New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants.
3. The revocation is effective 10 days after the service of a written notice, and the revoked operating permit shall be surrendered immediately unless a hearing is requested.

M. NAC 445B.315.3(g) Part 70 Program

This Operating Permit does not convey any property rights or any exclusive privilege.

N. NAC 445B.315.3(h) Part 70 Program

The Permittee shall provide the Director, within a reasonable time, with any information that the Director requests in writing to determine whether cause exists for modifying, revoking and reissuing, reopening and revising or terminating this Operating Permit or to determine compliance with the conditions of this Operating Permit.

O. NAC 445B.315.3(i) Part 70 Program

The Permittee shall pay fees to the Bureau of Air Pollution Control in accordance with the provisions set forth in NAC 445B.327 and 445B.331.



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Section I. General Conditions (continued)

P. NAC 445B.315.3(j) Part 70 Program

Right to Entry

The Permittee shall allow the Bureau of Air Pollution Control staff, upon the presentation of credentials, to:

1. Enter upon the premises of the Permittee where:
 - a. The stationary source is located;
 - b. Activity related to emissions is conducted; or
 - c. Records are kept pursuant to the conditions of this Operating Permit.
2. Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of this Operating Permit;
3. Inspect, at reasonable times, any facilities, practices, operations, or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to this Operating Permit; and
4. Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of this Operating Permit or applicable requirements.

Q. NAC 445B.315.3(k) Part 70 Program

A responsible official of the Permittee shall certify that, based on information and belief formed after reasonable inquiry, the statements made in any document required to be submitted by any condition of this Operating Permit are true, accurate and complete.

R. 40 CFR 52.21(r)(4) (Federally Enforceable PSD Program)

At such time that the Permittee becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of 40 CFR Part 52.21 paragraphs (j) through (s) of this section shall apply to the source or modification as though construction had not yet commenced on the source or modification.

S. NAC 445B.252 (State Only Requirement)

Testing and Sampling

1. To determine compliance with NAC 445B.001 to 445B.3689, inclusive, before the approval or the continuance of an Operating Permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and/or sampling must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial startup of the facility and at such times as may be required by the Director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
 - a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
 - b. Approves the use of an equivalent method;
 - c. Approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific stationary source is in compliance; or
 - d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the Director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown, and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard.



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Section I. General Conditions (continued)

S. NAC 445B.252 (*State Only Requirement*) (continued)

Testing and Sampling (continued)

4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions, or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
6. All testing and sampling will be performed in accordance with recognized methods as specified by the Director.
7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power, and other pertinent allied facilities as may be required and specified in writing by the Director must be provided and paid for by the owner of the stationary source.
8. All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their compliance with all provisions of these regulations, and copies of these results must be provided to the Director no later than 60 days after the testing or sampling, or both.
9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
 - a. An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
 - b. An affected source

T. SIP 445.252 (*Federally Enforceable SIP Requirement*)

Testing and Sampling

1. To determine compliance with NAC 445B.001 to 445B.3497, inclusive, prior to approval of or prior to the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and/or sampling must be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Director.
2. Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Director:
 - a. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
 - or
 - d. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Director's satisfaction that the affected facility is in compliance with the standard.
3. Performance tests shall be conducted under such conditions as the Director shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.
4. The owner or operator of an affected facility shall provide the Director 30 days' prior notice of the performance test to afford the Director the opportunity to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.



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Section I. General Conditions (continued)

T. SIP 445.252 (*Federally Enforceable SIP Requirement*) (continued)

Testing and Sampling (continued)

5. Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs shall apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions, or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power, and other pertinent allied facilities as may be required and specified in writing by the Director shall be provided and paid for by the owner of the source.
8. All information and analytical results of testing and sampling shall be certified as to their truth and accuracy and as to their compliance with all provisions of these regulations and copies of these results must be provided to both the owner and Director no later than 60 days after the testing or sampling, or both.
9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
 - a. An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
 - b. An affected source.

U. NAC 445B.22017 (*Federally Enforceable SIP Requirement*)

Visible Emissions: Maximum Opacity; Determination and Monitoring of Opacity.

1. Except as otherwise provided in this section and NAC 445B.2202, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:
 - a. If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A of 40 C.F.R. Part 60.
 - b. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. §§ 60.13(h).
2. The provisions of this section and NAC 445B.2202 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.
3. If the provisions of 40 CFR Part 60, Subpart D or Da apply to an emission unit, the emission unit shall be allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR § 60.42(a)(2) and 40 CFR § 60.42a(b).
4. The continuous monitoring system for monitoring opacity at a facility shall be operated and maintained by the owner or operator specified in the permit for the facility in accordance with NAC 445B.256 to 445B.267, inclusive.

V. NAC 445B.22037 (*Federally Enforceable SIP Requirement*)

Emissions of Particulate Matter: Fugitive Dust

1. The Permittee may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, the Permittee may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
3. Except as provided in subsection 4, the Permittee may not disturb or cover 5 acres or more of land or its topsoil until The Permittee has obtained an Operating Permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.



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Section I. General Conditions (continued)

V. NAC 445B.22037 (*Federally Enforceable SIP Requirement*) (continued)

Emissions of Particulate Matter: Fugitive Dust (continued)

4. The provisions of subsections 2 and 3 do not apply to:
 - a. Agricultural activities occurring on agricultural land; or
 - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

W. NAC 445B.22067 (*Federally Enforceable SIP Requirement*)

Open Burning

The open burning of any combustible refuse, waste, garbage, oil, or for any salvage operations, except as specifically exempted, is prohibited. Specific exemptions from open burning are described in NAC 445B.22067.2.

X. NAC 445B.22087 (*State Only Requirement*)

Odors

The Permittee may not discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious or detrimental to health and safety, or which in any way interferes with or prevents comfortable enjoyment of life or property.

Y. NAC 445B.319, 445B.342, 445B.3425 and 445B.344 *Part 70 Program*

Any changes to this Operating Permit will comply with all provisions established under NAC 445B.319, 445B.342, 445B.3425 and 445B.344.

Z. NAC 445B.3443 *Part 70 Program*

Renewal of this Operating Permit will be in accordance with NAC 445B.3443.

*****End of General Conditions*****



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Section II. General Construction Conditions

A. Notification (NAC 445B.250; NAC 445B.3405)

The Permittee shall notify the Director in writing of the following for **S2.001A and S2.002A** – added on August 11, 2025, and **S2.038, S2.039, S2.040, and S2.041** – added on enter date permit signed.

1. The date construction (or reconstruction as defined under NAC 445B.247) of the affected facility is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
2. The anticipated date of initial startup of an affected facility, postmarked no more than 60 days and no less than 30 days prior to such date.
3. The actual date of initial startup of the affected facility, postmarked within 15 days after such date.
4. The date upon which demonstration of the continuous monitoring system performance commences in accordance with NAC 445B.256 to 445B.267, inclusive. Notification must be postmarked not less than 30 days before such date.

*****End of General Construction Conditions*****



Bureau of Air Pollution Control

Facility ID No. A0375

Permit No. AP4911-0457.03

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section IIA. Specific Construction Requirements

A. Initial Performance Tests

NAC 445B.3405 (NAC 445B.316); NAC 445B.252 Part 70 Program

- 1. After the date of issuance of this operating permit, Permittee will conduct initial performance tests according to the schedule, and the test methods and procedures referenced in Table IIA-1 below:

Table IIA-1: Initial Performance Tests

Table with 5 columns: System, Emission Unit(s), Pollutant To Be Tested, Initial Testing Deadline, Testing Methods/Procedures. It contains two rows of test specifications.

- 2. Tests of performance, as specified in Table IIA-1 above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility.
3. Permittee shall provide notification of the anticipated date for conducting the initial performance tests required in Table IIA-1 above.
4. Within 60 days after completing the initial performance tests required in Table IIA-1 above, Permittee shall furnish the Director a written report of the results of the performance tests.



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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section IIA. Specific Construction Requirements (continued)

A. Initial Performance Tests (continued)

NAC 445B.3405 (NAC 445B.316); NAC 445B.252 *Part 70 Program* (continued)

5. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 180 days after initial combustion of natural gas or within 90 days of reaching full load while combusting natural gas, whichever is sooner, for S2.001A and S2.002A, each. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup for S2.038 and S2.039, each. The Permittee shall follow the test methods and procedures referenced in **Table IIA-2** below:

Table IIA-2: Initial Performance Tests

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.001A	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.002A		
System 20 – Unit #3 Combustion Turbine (General Electric)	S2.038		
System 21 – Unit #4 Combustion Turbine (General Electric)	S2.039		
System 22 – Unit #5 1,750 kW Emergency Diesel Generator	S2.040		
System 23 – Unit #6 176 HP Emergency Fire Water Pump Engine	S2.041		



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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section IIA. Specific Construction Requirements (continued)

A. Initial Performance Tests (continued)

NAC 445B.3405 (NAC 445B.316); NAC 445B.252 *Part 70 Program* (continued)

5. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 180 days after initial combustion of natural gas or within 90 days of reaching full load while combusting natural gas, whichever is sooner, for S2.001A and S2.002A, each. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of S2.038 and S2.039, each. The Permittee shall follow the test methods and procedures referenced in **Table IIA-2** below (continued):

Table IIA-2: Initial Performance Tests (continued)

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.001A	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.002A		
System 20 – Unit #3 Combustion Turbine (General Electric)	S2.038	PM ₁₀ /PM _{2.5}	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM ₁₀ and PM _{2.5} emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM _{2.5} for determination of compliance.
System 21 – Unit #4 Combustion Turbine (General Electric)	S2.039		
System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.001A	NO _x	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.002A		



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CLASS I AIR QUALITY OPERATING PERMIT

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Section IIA. Specific Construction Requirements (continued)

A. Initial Performance Tests (continued)

NAC 445B.3405 (NAC 445B.316); NAC 445B.252 *Part 70 Program* (continued)

5. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 180 days after initial combustion of natural gas or within 90 days of reaching full load while combusting natural gas, whichever is sooner, for S2.001A and S2.002A, each. The Permittee, upon issuance of this operating permit, shall conduct and record initial opacity compliance demonstrations and/or initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of S2.038 and S2.039, each. The Permittee shall follow the test methods and procedures referenced in **Table IIA-2** below (continued):

Table IIA-2: Initial Performance Tests (continued)

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.001A	CO	Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing)	S2.002A	VOC	Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
System 20 – Unit #3 Combustion Turbine (General Electric)	S2.038		
System 21 – Unit #4 Combustion Turbine (General Electric)	S2.039		
System 20 – Unit #3 Combustion Turbine (General Electric)	S2.038	H ₂ SO ₄	Method 8 in Appendix A of 40 CFR Part 60 shall be used to determine the sulfuric acid mist concentration. Each test will be run for a minimum of one hour.
System 21 – Unit #4 Combustion Turbine (General Electric)	S2.039		



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Section IIA. Specific Construction Requirements (continued)

A. Initial Performance Tests (continued)

NAC 445B.3405 (NAC 445B.316); NAC 445B.252 *Part 70 Program* (continued)

2. Tests of performance, as specified in **Table IIA-1 and Table IIA-2** above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
3. Permittee shall provide notification of the anticipated date for conducting the initial performance tests required in **Table IIA-1 and Table IIA-2** above. The notification shall be postmarked not less than 30 days prior to such date.
4. Within 60 days after completing the initial performance tests required in **Table IIA-1 and Table IIA-2** above, Permittee shall furnish the Director a written report of the results of the performance tests. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive (NAC 445B.252.8).

*****End of Specific Construction Conditions*****



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section III. General Operating Conditions

A. NAC 445B.227 *Part 70 Program*

Facilities Operation

The Permittee may not:

1. Operate a stationary source of air pollution unless the control equipment for air pollution which is required by applicable requirements or conditions of this Operating Permit is installed and operating.
2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of this Operating Permit.

B. NAC 445B.232 *(State Only Requirement)*

Excess Emissions

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Permittee shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 3689, inclusive. The scheduled maintenance or testing shall not be performed unless approved pursuant to Section III.B.1.
3. The Permittee shall notify the Director of the proposed time and expected duration at least 24 hours in advance of any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive. The scheduled repair shall not be performed unless approved pursuant to Section III.B.1.
4. The Permittee shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of such equipment. E-mail to: aircompliance@ndep.nv.gov.
5. The Permittee shall provide the Director, within 15 days after any malfunction, upset, start-up, shutdown or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
 - a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
 - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
 - c. The time and duration of the excess emissions.
 - d. The identity of the equipment causing the excess emissions.
 - e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
 - f. The steps taken to limit the excess emissions.
 - g. Documentation that the equipment for controlling air pollution, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.
6. The *Permittee* shall ensure that any notifications or related information submitted to the Director pursuant to this section is provided in a format specified by the Director.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section III. General Operating Conditions (continued)

C. SIP 445.667 (*Federally Enforceable SIP Requirement*)

Excess Emissions: Scheduled Maintenance: Testing: Malfunctions

1. Scheduled maintenance or testing approved by the Director or repairs which may result in excess emissions of air contaminants prohibited by SIP 445.430 to 445.846, inclusive, must be performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Director shall be notified in writing on the time and expected duration at least 24 hours in advance of any scheduled maintenance or repairs which may result in excess emissions of air contaminants prohibited by SIP 445.430 to 445.846, inclusive.
3. The Director must be notified within 24 hours after any malfunction, breakdown or upset of process or pollution control equipment or during startup of such equipment. Phone (702) 885-4670.
4. The owner or operator of an affected facility shall provide the Director, within 15 days after any malfunction, breakdown, upset, startup or human error sufficient information to enable the Director to determine the seriousness of the excess emissions. The submission must include as a minimum:
 - a. The identity of the stack and/or other emission point where the excess emission occurred.
 - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable emission limitation and the operating data and methods used in estimating the magnitude of the excess emissions.
 - c. The time and duration of the excess emissions.
 - d. The identity of the equipment causing the excess emissions.
 - e. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions.
 - f. The steps taken to limit the excess emissions.
 - g. Documentation that the air pollution control equipment, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.

D. SIP Article 2.5.4 (*Federally Enforceable SIP Requirement*)

1. Breakdown or upset, determined by the Director to be unavoidable and not the result of careless or marginal operations, shall not be considered a violation of these regulations.

*******End of General Operating Conditions*******



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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section IV. Federal Regulations and Applicable Requirements

- A. The following provisions are applicable requirements of this Operating Permit:
1. The Permittee will comply with all applicable provisions of:
 - a. 40 CFR Part 60.1 - 60.19 - Standards of Performance for New Stationary Sources - General Provisions;
 - b. 40 CFR Part 61.01 - 61.19 - National Emission Standards for Hazardous Air Pollutants - General Provisions;
 - c. 40 CFR Part 61.140 - 61.157 - National Emission Standard for Asbestos;
 - d. 40 CFR Part 63.1 - 63.15 - National Emission Standards for Hazardous Air Pollutants for Source Categories - General Provisions;
 - e. 40 CFR Part 70 - State Operating Permit Programs.
 - f. 40 CFR Part 72 - Permits Regulation
 2. This provision is applicable if the Permittee is subject to 40 CFR Part 68 - Chemical Accident Prevention Provisions. The Permittee shall submit a risk management plan (RMP) by dates specified in 40 CFR 68.10. The Permittee shall certify compliance with these requirements as part of the annual compliance certification as required by 40 CFR Part 70.
 3. This provision is applicable if the Permittee is subject to 40 CFR Part 82. The *Permittee* will comply with all provisions of 40 CFR Part 82. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156. Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158. Persons performing maintenance, service, repair or disposal of appliances must be certified by a certified technician pursuant to 40 CFR 82.161.

*******End of Federal Regulations and Applicable Requirements*******



Bureau of Air Pollution Control

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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section V. General Monitoring, Recordkeeping, and Reporting Requirements

A. NAC 445B.315.3(b) Part 70 Program

The Permittee shall retain records of all required monitoring data and supporting information for 5 years from the date of the sample collection, measurement, report or analysis. Supporting information includes, but is not limited to, all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

B. NAC 445B.3405.1(d) Part 70 Program

The Permittee will record:

1. Monitoring information required by the conditions of this permit including the date, the location and the time of the sampling or the measurements and the operating conditions at the time of the sampling or measurements; and
2. The date on which the analyses were performed, the company that performed them, the analytical techniques that the company used, and the results of such analyses.

C. NAC 445B.3405.1(e) Part 70 Program

The Permittee will:

1. Promptly report to the Director all deviations from the requirements of this Operating Permit; and
2. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this Operating Permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under **Section III.B** of this permit, or for reporting of an emergency (as defined by NAC 445B.326) under **Section I.G.** of this permit; and
3. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in sections **VI** and **VII** of this operating permit.

D. NAC 445B.315.3(h) Part 70 Program

The Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, and emissions. These reports will be submitted on the form provided by the Bureau of Air Pollution Control for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Pollution Control no later than March 1 annually for the preceding calendar year, unless otherwise approved by the Bureau of Air Pollution Control.

E. NAC 445B.3405.1(j) Part 70 Program

1. The Permittee will submit a compliance certification for all applicable requirements, reflecting the terms and conditions of the permit, to the Administrator of the Division of Environmental Protection and the Administrator of USEPA annually, on or before March 1 for the preceding calendar year. The compliance certification must include:
 - a. An identification of each term or condition of the Operating Permit that is the basis of the certification;
 - b. The status of the stationary source's compliance with any applicable requirement;
 - c. A statement of whether compliance was continuous or intermittent;
 - d. The method used for determining compliance; and
 - e. Any other facts the Director determines to be necessary to determine compliance.



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Section V. General Monitoring, Recordkeeping, and Reporting Requirements (continued)

F. NAC 445B.265 (*Federally Enforceable SIP Requirement*)

Monitoring systems: Records; Reports

1. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
2. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - a. The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - b. Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - c. The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - d. Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - (1) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.
3. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
 - a. Continuous monitoring systems, monitoring devices and performance testing measurements;
 - b. All continuous monitoring system performance evaluations;
 - c. All continuous monitoring systems or monitoring device calibration checks;
 - d. Adjustments and maintenance performed on these systems or devices; and
 - e. All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - (1) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

G. NAC 445B.063 (*State-Only Requirement*)

The Department may use 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, to determine excess emissions.

H. NAC 445B.308 (*State-Only Requirement*)

The Permittee shall monitor and record PM₁₀ and SO₂ concentrations in the ambient air and monitor and record meteorological conditions, in accordance with 1 through 3 below, from the commencement of operation of the facility until the termination of the operation or, if applicable, until reclamation of the project is complete or the Permittee has been relieved of its ambient monitoring requirement by the Chief of the Bureau of Air Pollution Control or Chief of the Bureau of Air Quality Planning or their designees. Ambient monitoring sites shall be approved in advance of required monitoring by the Chief of the Bureau of Air Quality Planning or the Chief of the Bureau of Air Pollution Control or his designee. All required ambient air quality and meteorological monitoring shall be conducted and findings reported in accordance with the *October 2006* version of the Nevada Division of Environmental Protection (NDEP), Bureau of Air Quality Planning's Ambient Air Quality Monitoring Guidelines and documents listed therein as currently displayed on the http://ndep.nv.gov/baqp/caudit/monitoring_guidelines.pdf website. Monitoring reports of the findings shall be submitted to the NDEP, Bureau of Air Quality Planning for each calendar quarter within 60 days after the end of the calendar quarter.



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section V. General Monitoring, Recordkeeping, and Reporting Requirements (continued)

H. NAC 445B.308 State-Only Requirement (continued)

At least one of the three monitoring stations listed below shall have collocated PM₁₀ samplers or monitors. The following sites have been approved by NDEP-BAPC:

1. **Station 1**

Location: Section 21, T34N, R43E, MDB&M (HA64)

Monitor and Record: PM₁₀, PM_{2.5}, and NO_x concentrations, wind speed, wind direction, ambient temperature, and solar radiation.

Meteorological data shall be collected at the 2, 10, 50 and 100-meter levels as follows:

- a. 2-meter level: Temperature;
- b. 10-meter level: Wind Speed, Wind Direction, Temperature;
- c. 50-meter level: Wind Speed, Wind Direction, Temperature;
- d. 100-meter level: Wind Speed, Wind Direction, Temperature; and
- e. 2-meter to 10- meter level: Solar Radiation.

The 2 meter and 10 meter levels shall use matched temperature sensors (or equivalent) to achieve the 10m – 2m delta-T audit tolerance as required for use in AERMOD modeling. The 50 meter and 100 meter levels shall also use matched temperature sensors (or equivalent) to achieve the 100m – 50m delta-T audit tolerance as required for use in AERMOD modeling.

If PM₁₀ monitoring utilizes high-volume samplers, at least one of the PM₁₀ monitoring stations shall have collocated PM₁₀ samplers and sampling shall be conducted in accordance with US EPA Quality Assurance Handbook, Vol. II, Section 2.11 guidance as discussed in Bureau’s Ambient Air Quality Monitoring Guidelines.

2. **Station 2**

Location: Section 31, T34N, R43E, MDB&M (HA64)

Monitor and Record: PM₁₀ and PM_{2.5} concentrations, SO₂ concentrations, NO_x concentrations, 10-meter wind speed, 10-meter wind direction, and 2-meter temperature.

If PM₁₀ monitoring utilizes high-volume samplers, at least one of the PM₁₀ monitoring stations shall have collocated PM₁₀ samplers and sampling shall be conducted in accordance with US EPA Quality Assurance Handbook, Vol. II, Section 2.11 guidance as discussed in Bureau’s Ambient Air Quality Monitoring Guidelines.

3. **Station 3**

Location: Section 22, T34N, R45E, MDB&M (HA64)

Monitor and Record: PM₁₀ and PM_{2.5} concentrations, SO₂ concentrations, NO_x concentrations, 10-meter wind speed, 10-meter wind direction, and 2-meter temperature.

If PM₁₀ monitoring utilizes high-volume samplers, at least one of the PM₁₀ monitoring stations shall have collocated PM₁₀ samplers and sampling shall be conducted in accordance with US EPA Quality Assurance Handbook, Vol. II, Section 2.11 guidance as discussed in Bureau’s Ambient Air Quality Monitoring Guidelines.

See Section X. of this operating permit for PM_{2.5} and NO_x schedule of compliance.

*****End of General Monitoring, Recordkeeping, and Reporting Requirements*****



Bureau of Air Pollution Control

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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions

A. Emission Unit S2.001

System 01 – Unit #1 Boiler (REVISED 08/2025, Air Case 12118)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001	Babcock & Wilcox balanced draft, dry bottom, opposed wall fired geometry boiler, model # FM 9-30 OF-36, serial # 82-7501, Commencement of Construction: September 20, 1977	4,525,590	487,130

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Control Equipment

a. Control system consisting of:

- (1) Baghouse to control particulate matter emissions.
- (2) Air atomized ignitors to control particulate matter and opacity during startup and for flame stabilization.
- (3) Multi-stage combustion to control nitrogen oxides emissions through the use of Low NO_x Burners and Over Fired Air.

b. Descriptive Stack Parameters

Stack Height: 504.9 ft
 Stack Diameter: 18.44 ft
 Nominal Exhaust Temperature: 285.2 °F
 Nominal Volumetric Flowrate: 674,931.4 dscfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

On and after the date of startup of **S2.001**, **Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001** the following pollutants in excess of the following specified limits:

- a. NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.166** pound per million Btu.
- b. 40 CFR Part 60.42(a)(1) Federal Enforceable New Source Performance Standard Requirement – The discharge of **PM** (total particulate matter) to the atmosphere will not exceed **0.10** pound per million Btu.
- c. NAC 445B.305 Part 70 Program – The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **256.0** pounds per hour.
- d. NAC 445B.305 Part 70 Program – The discharge of **PM** (particulate matter) to the atmosphere will not exceed **256.0** pounds per hour.
- e. 40 CFR Part 60.44(a)(3) Federal Enforceable New Source Performance Standard Requirement – The discharge of **NO_x** (nitrogen oxides) to the atmosphere will not exceed **0.70** pound per million Btu, based on a 3-hour rolling average.
- f. NAC 445B.305 Part 70 Program – The discharge of **NO_x** (nitrogen oxides) to the atmosphere will not exceed **7,849** tons per year, based on a 12-month rolling average.
- g. NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of **sulfur** to the atmosphere will not exceed **1,536.0** pounds per hour, averaged over each one-hour period.
- h. 40 CFR Part 60.43(a)(2) Federal Enforceable New Source Performance Standard Requirement – The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **1.20** pounds per million Btu, based on a 3-hour rolling average.
- i. NAC 445B.305 Part 70 Program – The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **3,072.0** pounds per hour, based on a 3-hour rolling average.
- j. NAC 445B.305 Part 70 Program – The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **8,340.0** pounds per hour.
- k. NAC 445B.305 Part 70 Program – The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **55.0** pounds per hour.



Bureau of Air Pollution Control

Facility ID No. A0375

Permit No. AP4911-0457.03

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits (continued)

On and after the date of startup of **S2.001**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001** the following pollutants in excess of the following specified limits:

- l. NAC 445B.305 Part 70 Program – The discharge of **Pb** (lead) to the atmosphere will not exceed **31.0** pounds per hour.
- m. NAC 445B.22017 Federally Enforceable SIP Requirement – The **opacity** from **S2.001** will not equal or exceed 20%. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.001** is allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR part 60.42(a)(2).
- n. 40 CFR Part 60.42(a)(2) Federal Enforceable New Source Performance Standard Requirement – The **opacity** from **S2.001** will not exceed **20%** for a period of 6 minutes in any one hour, except for one 6-minute period per hour of not more than 27% opacity.
- o. 40 CFR Part 63.9991 Federal Enforceable National Emission Standards for Hazardous Air Pollutants for Source Categories Requirements – *Permittee* must comply with the following emission limits (Table 2 to 40 CFR Part 63 Subpart UUUUU for a coal-fired unit not low rank virgin coal):
 - (1) Filterable particulate matter (**PM**) will not exceed 3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh (gross electric output), **total non-Hg HAP metals** will not exceed 5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh, OR the following individual HAP metals:
 - (i) Antimony (**Sb**) will not exceed 8.0E-1 lb/TBtu or 8.0E-3 lb/GWh,
 - (ii) Arsenic (**As**) will not exceed 1.1 lb/TBtu or 2.0E-2 lb/GWh,
 - (iii) Beryllium (**Be**) will not exceed 2.0E-1 lb/TBtu or 2.0E-3 lb/GWh,
 - (iv) Cadmium (**Cd**) will not exceed 3.0E-1 lb/TBtu or 3.0E-3 lb/GWh,
 - (v) Chromium (**Cr**) will not exceed 2.8 lb/TBtu or 3.0E-2 lb/GWh,
 - (vi) Cobalt (**Co**) will not exceed 8.0E-1 lb/TBtu or 8.0E-3 lb/GWh,
 - (vii) Lead (**Pb**) will not exceed 1.2 lb/TBtu or 2.0E-2 lb/GWh,
 - (viii) Manganese (**Mn**) will not exceed 4.0 lb/TBtu or 5.0E-2 lb/GWh,
 - (ix) Nickel (**Ni**) will not exceed 3.5 lb/TBtu or 4.0E-2 lb/GWh,
 - (x) Selenium (**Se**) will not exceed 5.0 lb/TBtu or 6.0E-2 lb/GWh;
 - (2) Hydrogen chloride (**HCl**) will not exceed 2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh OR sulfur dioxide (**SO₂**) will not exceed 2.0E-1 lb/MMBtu or 1.5 lb/MWh; and
 - (3) Mercury (**Hg**) will not exceed 1.2 lb/TBtu or 1.3E-2 lb/GWh.
- p. Specific Acid Rain Requirements
 - (1) Sierra Pacific Power Company d/b/a NV Energy - North Valmy Generating Station will not exceed the SO₂ emission levels (acid rain allowances) for **S2.001** in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	Calendar Year	2015	2016	2017	2018	2019
SO₂ (sulfur dioxide)	Acid Rain Allowance	6,569	6,569	6,569	6,569	6,569
NO_x (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)*	0.46	0.46	0.46	0.46	0.46

*Note: the NO_x emission limit is effective through December 31, 2019.

- (2) Sierra Pacific Power Company d/b/a NV Energy – North Valmy Generating Station will comply with the SO₂ acid rain permit application signed December 16, 2014 entitled “Acid Rain Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 (NAC 445B.305).



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

On and after the date of startup of **S2.001**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001** the following pollutants in excess of the following specified limits:

- p. Specific Acid Rain Requirements (continued)

- (3) Sierra Pacific Power Company d/b/a NV Energy – North Valmy Generating Station will comply with the NO_x acid rain permit application signed December 16, 2014 entitled “Acid Rain Permit Application” and all references contained therein, including the Phase II NO_x Compliance Plan and the Phase II NO_x Averaging Plan (effective from January 1, 2015 to December 31, 2019), which are hereby incorporated by reference into this operating permit as Attachment 1 (40 CFR Part 72.40, NAC 445B.305).

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters

- a. Maximum allowable heat input for any fuel combusted in **S2.001** will not exceed **2,560.0** MMBtu/hr, averaged over a one-hour period.
- b. **S2.001** may combust coal as the primary fuel. The use of #2 fuel oil and “on-spec” used oil is designated for boiler startup and flame stabilization purposes during the startup or shutdown of a coal burner. “On-spec” used oil is defined as nonhazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- c. All “on-spec” used oil combusted in **S2.001** will be obtained only from Sierra Pacific Power d/b/a NV Energy facilities.
- d. **S2.001** and **S2.001A** shall not operate simultaneously.
- e. Hours
S2.001 may operate a total of **8,760** hours per calendar year.
- f. Upon notification of initial startup of **S2.001A** to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of **S2.001**.
- g. Upon notification of initial startup of both **S2.001A** and **S2.002A** to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of **S2.003**, **S2.005**, **S2.006**, **S2.008**, **S2.009**, **S2.010**, **S2.011**, **S2.012**, **S2.0031**, **S2.032**, **S2.033**, and **S2.034**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting

- a. Compliance/Performance Testing

Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the previous annual compliance testing. As part of the annual compliance test the *Permittee* shall:

- (1) Conduct and record a Method 5 performance test for particulate matter (PM) on the exhaust stack of **S2.001** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. Compliance with the particulate matter standards contained in A.2.a through A.2.d shall be determined by using the dry basis F factor (O₂) procedures in Method 19 to compute the emissions rate. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of 160 +/- 14 °C (320 +/- 25 °F). For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ traverse points (40 CFR Part 60.46(b)(2)).



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)
Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the previous annual compliance testing. As part of the annual compliance test the *Permittee* shall:
 - a. Compliance/Performance Testing (continued)
 - (2) Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of **S2.001** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
 - (3) The Method 201A and 202 emissions tests on the exhaust stack of S2.001 may be replaced by the Method 5 performance test with the back-half catch (Method 5 and 202) consisting of three valid runs, provided that all particulate matter captured in the Method 5 and 202 test shall be considered PM10 emissions for determination of compliance with the emission limitations established in this permit. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
 - (4) Conduct and record a Method 6 or 6C performance test for SO₂ on the exhaust stack of **S2.001** consisting of three valid runs. The Method 6 or 6C emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.
 - (5) Conduct and record a Method 7 or 7E performance test for NO_x on the exhaust stack of **S2.001** consisting of three valid runs. The Method 7 or 7E emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
 - (6) Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.001** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
 - (7) Conduct and record a Method 25 or 25A in conjunction with a Method 18 performance test for VOC on the exhaust stack of **S2.001** consisting of three valid runs. The Method 25, 25A and 18 emissions test(s) must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A and 18.
 - (8) Conduct and record a Method 29 performance test for Pb on the exhaust stack of **S2.001** consisting of three valid runs. The Method 29 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 29.
 - (9) If an anticipated major boiler overhaul is to be performed which will coincide with a compliance test, the compliance testing will be performed prior to the overhaul, or as soon as practicable following the overhaul, but not earlier than 60 days following the overhaul.
 - (10) During each compliance test, record the opacity of the discharge from the exhaust stack of **S2.001** using either a calibrated continuous opacity monitor or a visible emissions evaluation conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The Method 9 visible emissions test must be conducted by a certified visible emissions reader for a period of at least 60 minutes (recorded as ten 6-minute averages).
 - (11) The performance tests will be conducted at the maximum operating heat input rate limit established in A.3.a of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.2 & 3. The *Permittee* shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting (continued)

Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the previous annual compliance testing. As part of the annual compliance test the **Permittee** shall:

a. Compliance/Performance Testing (continued)

- (12) The **Permittee** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternative to the reference methods and procedures provided in 40 CFR Part 60.46(d) may be utilized to the extent that they are applicable to **S2.001**, and must be identified in the testing procedures as alternative methods.
- (13) During each performance test required in A.4.a.(1) through (8) of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 5 with the back-half catch or Method 201A and 202, Method 6 or 6C, Method 7 or 7E, Method 10, Method 25A or 25 and 18, and Method 29 performance tests for PM₁₀, SO₂, NO_x, CO, VOC, and Pb must be converted to emissions of PM₁₀, SO₂, sulfur, NO_x, CO, VOC, and Pb (lb/hr and lb/MMBtu), each.
- (14) As a result of the most recent performance test performed in A.4.a.(1), (2), and (3) of this section, derive emission factors for each of the following:
 - (i) Pounds of PM per MMBtu (lbs-PM/MMBtu), filterable and condensable.
 - (ii) Pounds of PM₁₀ per MMBtu (lbs-PM₁₀/MMBtu), filterable and condensable.

These emissions factors will be based on the average of the 3 test runs.

- (15) Within 60 days after completing the performance tests and opacity observations contained in A.4.a of this section, the **Permittee** shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).
- (16) Conduct and record the Relative Accuracy Test Audit (RATA) as specified in Section VII.A.

b. Monitoring

The **Permittee**, upon startup of **S2.001**, will:

- (1) Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of coal (in tons) combusted in **S2.001**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.001**.
- (2) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of coal as measured by the coal mass measurement device required in A.4.b.(1) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- (3) Install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring the opacity of emissions, SO₂ emissions, NO_x emissions, and either carbon dioxide (CO₂) or oxygen (O₂) as specified in 40 CFR Part 60 Subpart D and Section VII.A. of this operating permit.
- (4) Install, calibrate, maintain, and operate a Continuous Data Collection System (CDCS) to continuously record the SO₂ concentration, NO_x concentration, carbon dioxide or oxygen content, as specified in 40 CFR Part 60 Subpart D and Section VII.A. of this operating permit.
- (5) Install, calibrate, maintain, and operate a Continuous Opacity Monitoring System (COMS) as specified in 40 CFR Part 60 Subpart D and Section VII.B. of this operating permit.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

The *Permittee*, upon startup of **S2.001**, will:

- (6) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as specified in 40 CFR Part 60 Subpart D and Section VII.B. of this operating permit.
- (7) The owner or operator shall determine and record the heat input rate, in units of MMBtu/hr, to each affected unit for every hour or part of an hour any fuel is combusted (40 CFR Part 75.10(c)).
- (8) The results of the 1-hour average for SO₂ emissions (in lb/hr), determined in A.4.b.(3) of this section, shall be divided by 2 to obtain the average sulfur emissions (in lb/hour).
- (9) Install, calibrate, operate and maintain a fuel flow meter to continuously measure the volume of No. 2 distillate fuel oil and “on-spec” used oil (in gallons) combusted in **S2.001**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.001** in accordance with the requirements prescribed in 40 CFR Part 75.
- (10) Data from a continuous flow monitoring system and moisture monitoring system as applicable as required in A.4.b.(3), certified according to the requirements of 40 CFR Part 75.20(c) and appendix A to Part 75, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR Part 75.21 and appendix B to Part 75 of this chapter, may be used to show continual compliance with the heat input rate in MMBtu/hr as required in A.3.a. Flow rate data and moisture data as applicable, reported to meet the requirements of this permit shall not include substitute data values derived from the missing data procedures in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75. Other methods of determining the heat input rate may be used with the approval of the Director.
- (11) Using either the Flow Proportional or Manual Method described in 40 CFR Part 75, Appendix D 2.2.1, 2.2.3, or 2.2.4 prepare a sample representative of the No. 2 distillate fuel oil and “on-spec” used oil combusted in **S2.001** for each day (or a composite sample representative of the entire tank upon delivery of No. 2 distillate fuel oil and “on-spec” used oil to the tank) while combusting that fuel. The sulfur content of the fuel oil sample shall be determined in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D or the CEMS required in A.4.b.(3). The gross calorific value of this sample will be determined in accordance with ASTM D240-00 “Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter” or ASTM D4809-00, “Standard Test Method for Heat or Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)” and the requirements prescribed in 40 CFR Part 75, Appendix F, Section 3.3.6.2. Alternatively, an estimated maximum gross calorific value of 20,000 Btu per pound (Btu/lb) @ 7.4 pounds per gallon (lb/gal) for No. 2 distillate fuel oil may be used.
- (12) Monitor the hours of operation of **S2.001** on a daily basis.

c. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, *Permittee* will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from **S2.001**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.001** four or more data values equally spaced over each hour and averaged the values as specified in 40 CFR Part 64.3(b)(4)(ii). Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure drop shall not exceed **9.5** inches of water for the baghouse controlling emissions from **S2.001**. Excursions shall be defined as anytime the baghouse pressure drop exceeds this indicator range.
- (4) On an annual basis, perform an inspection of the baghouse system for **S2.001** including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

c. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, *Permittee* will:

- (5) The required monitoring established in A.4.c.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping for each week, or part of the week that **S2.001** is operating:
- (i) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.001**, each week that **S2.001** is in operation.
 - (ii) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
 - (iii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.001**, and any corrective actions taken.
- (6) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.

d. Recordkeeping

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- (1) Follow the notification and recordkeeping provisions of 40 CFR Part 60.7 and 60.19.
- (2) The total hourly quantity of:
 - (i) Coal (in tons) combusted, for each hour of operation based on the data recorded by the CDCS as required in A.4.b.(2) of this section.
 - (ii) No. 2 distillate fuel oil and “on-spec” used oil (in gallons) combusted, for each day of operation, as provided by the fuel flow meter required in A.4.b.(9) of this section.
- (3) Daily hours of operation:
 - (i) The total daily hours of operation for the corresponding date.
 - (ii) For boiler start-up, flame stabilization, and shut down, record the total hours of start-up, flame stabilization, and shut down operations for the corresponding date.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- (4) (i) The average hourly heat input of the coal, fuel oil, or “on-spec” used oil combusted, in MMBtu per hour. The hourly heat inputs will be calculated as follows and as described in A.4.b.(10) of this section:

$$HI = Q_w * (1/F_c) * (\%CO_{2w}/100)$$

Where:

HI = Hourly heat input rate during unit operation, MMBtu/hr

Q_w = Hourly average volumetric flow rate during unit operation, wet basis, scfh

F, F_c = factor representing a ratio of the volume of dry flue gases generated to the caloric value of the fuel combusted (F), and a factor representing a ratio of the volume of CO₂ generated to the calorific value of the fuel combusted (F_c), respectively. Table 1 lists the values of F and F_c for different fuels.

Table 1: F and F_c Factors¹

Fuel	F-factor (dscf/MMBtu)	F_c-factor (scf CO₂/MMBtu)
Coal (as defined by ASTM D388–99):		
Anthracite	10,100	1,970
Bituminous	9,780	1,800
Sub-bituminous	9,820	1,840
Lignite	9,860	1,910
Oil	9,190	1,420

¹Determined at standard conditions: 20 °C (68 °F) and 29.92 inches of mercury.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

(4) (ii) Equations F-7a and F-7b may be used in lieu of the F or Fc factors specified in the table above to calculate a site-specific dry-basis F factor (dscf/MMBtu) or a site-specific Fc factor (scf CO2/MMBtu), on either a dry or wet basis. At a minimum, the site-specific F or Fc factor must be based on 9 samples of the fuel. Fuel samples taken during each run of a RATA are acceptable for this purpose. The site-specific F or Fc factor must be re-determined at least annually, and the value from the most recent determination must be used in the emission calculations. Alternatively, the previous F or Fc value may continue to be used if it is higher than the value obtained in the most recent determination. The owner or operator shall keep records of all site-specific F or Fc determinations, active for at least 3 years. (Calculate all F and Fc factors at standard conditions of 20 °C (68 °F) and 29.92 inches of mercury).

Eq. F-7a: F = (3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) - 0.46(%O)) / GCV x 10^6

Eq. F-7b: Fc = (321 x 10^3 (%C)) / GCV

Where:

H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as the gross calorific value (GCV) by ultimate analysis of the fuel combusted using ASTM D3176-89 (Reapproved 2002), Standard Practice for Ultimate Analysis of Coal and Coke, (solid fuels), ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, (liquid fuels) or computed from results using ASTM D1945-96 (Reapproved 2001), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, or ASTM D1946-90 (Reapproved 2006), Standard Practice for Analysis of Reformed Gas by Gas Chromatography, (gaseous fuels) as applicable.

GCV is the gross calorific value (Btu/lb) of the fuel combusted determined by ASTM D5865-01a, Standard Test Method for Gross Calorific Value of Coal and Coke, and ASTM D240-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, or ASTM D4809-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method) for oil; and ASTM D3588-98, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, GPA Standard 2172-96 Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis, GPA Standard 2261-00 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, or ASTM D1826-94 (Reapproved 1998), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for gaseous fuels, as applicable.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- (4) (iii) For affected units that combust a combination of a fuel (or fuels) listed in Table 1 above with any fuel(s) not listed in Table 1, the F or F_c value is subject to the Administrator's approval.
- (iv) For affected units that combust combinations of fuels listed in Table 1 above, prorate the F or F_c factors determined by section A.4.d.(4)(i) or A.4.d.(4)(ii) in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \qquad F_c = \sum_{i=1}^n X_i (F_c)_i$$

Where,

X_i = Fraction of total heat input derived from each type of fuel (e.g., bituminous coal, sub-bituminous coal). Each X_i value shall be determined from the best available information on the quantity of fuel combusted and the GCV value, over a specified time period. The owner or operator shall explain the method used to calculate X_i in the hardcopy portion of the monitoring plan for the unit. The X_i values may be determined and updated either hourly, daily, weekly, or monthly. In all cases, the prorated F factor used in the emission calculations shall be determined using the X_i values from the most recent update.

F_i or (F_c)_i = Applicable F or F_c factor for each fuel type determined in accordance with section A.4.d.(4)(i) or A.4.d.(4)(ii).

n = Number of fuels being combusted in combination.

- (v) As an alternative to prorating the F or F_c factor as described in section A.4.d.(4)(iv), a “worst-case” F or F_c factor may be reported for any unit operating hour. The worst-case F or F_c factor shall be the highest F or F_c value for any of the fuels combusted in the unit.
- (5) The hourly emission rate of PM and PM₁₀ each:
- (i) In pounds per hour (lbs/hr). The hourly emission rates will be calculated from the hourly heat input rate, as determined in A.4.d.(4) of this section, and the emission factor derived in A.4.a.(14) of this section.
- (6) The emission rates of sulfur and SO₂ each, in pounds per hour (lbs/hr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in A.4.b.(3) of this section for each averaging period described below:
- (i) The sulfur emissions in pounds per hour (lbs/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
- (ii) The Sulfur and SO₂ emissions in pounds per million Btu (lbs/MMBtu).

The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standards (e.g. lb/MMBtu and lbs/hr, 1-hour, and 3-hour average periods).



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- (7) The annual emissions rate of NO_x in tons per year (tons/yr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in A.4.b.(3) of this section. Total monthly emissions will be added to the previous 11 months in order to determine the 12-month rolling average. The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standard (e.g. ton/yr, lb/MMBtu, 3-hour, monthly, and 12-month rolling average).
- (8) The measured opacity (in percent opacity) from the continuous opacity monitoring system required in A.4.b.(5) of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
 - (i) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.3 and as set forth in 40 CFR Part 60.13.
 - (ii) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42(a)(2).
- (9) Observations made and any corrective actions taken as a result of the baghouse inspection required in A.4.c.(4).
- (10) Retain all records of laboratory analyses performed to show that all “on-spec” used oil is nonhazardous as defined by the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- (11) Retain recordkeeping which documents that the all of the “on-spec” used oil burned in **S2.001** is generated only in Sierra Pacific Power Company d/b/a NV Energy facilities.
- (12) Retain all required records in accordance with Section V.A of this operating permit.

e. Reporting

Permittee will:

- (1) Report all excess emissions from **S2.001** as required in Section III.B and III.C of this operating permit.
- (2) Report excess emissions and monitoring system performance (MSP) to the Director and to the Administrator of U.S. EPA each calendar quarter. The quarterly reports will be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report will include the information required in 40 CFR Part 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime to be reported will be in accordance with 40 CFR Part 60.45(g)(1) through (3). [40 CFR Part 60.45(g)]
- (3) Report all deviations as required in Sections V.C and V.F. of this operating permit.
- (4) Report all excursions as required in section VI.A.4.c.(6) of this operating permit.
- (5) Submit semi-annual monitoring reports as required in Section V.C of this operating permit.
- (6) Certify compliance with all applicable requirements as required in Section V.E of this operating permit.
- (7) Report the results of the performance tests required in A.4.a of this section.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit S2.001 (continued)

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (Federal Only Requirement) NESHAP for Coal and Oil-Fired Utility Steam Generating Units (EGU), 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – Existing stationary EGU (40 CFR 63.9982(a)(1))

- a. *Permittee* will be required to comply with the applicable requirements as required in Section VIII. of this operating permit.

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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A

System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing) (REVISED 02/2026, Air Case 12720)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001A	Unit #1 Boiler (Manufactured by Babcock & Wilcox; Model FM 9-30 OF-36; Serial 82-7501; Date Sep 20, 1977; Max Heat Input 2,708 MMBtu/hr)	4,525,590	487,130

1. Air Pollution Control Equipment (NAC 445B.3405)
 - a. Emissions from **S2.001A** shall be controlled by **Low NO_x Burners**.
 - b. Descriptive Stack Parameters
Stack Height: 504.9 feet
Stack Diameter: 18.4 feet
Stack Temperature: 252.0 °F
Exhaust Flow: 511,700.0 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.3405)
 - a. **S2.001A** may consume only **natural gas**.
 - b. The maximum allowable fuel consumption rate for **S2.001A** shall not exceed **2,654,902.0 standard cubic feet (scf)** per hour, averaged over a calendar day, nor more than **15,557,725,720.0 scf** per 12-month rolling period.
 - c. **S2.001A** and **S2.001** shall not operate simultaneously.
 - d. Hours
(1) **S2.001A** may operate a total of **24** hours per day.
 - e. Upon notification of initial startup of **S2.001A** to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of **S2.001**.
 - f. Upon notification of initial startup of both **S2.001A** and **S2.002A** to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of **S2.003, S2.005, S2.006, S2.008, S2.009, S2.010, S2.011, S2.012, S2.0031, S2.032, S2.033, and S2.034**.

3. Emission Limits (NAC 445B.305, NAC 445B.3405)
The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.001A** the following pollutants in excess of the following specified limits:
 - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **20.2** pounds per hour, nor more than **59.1** tons per 12-month rolling period.
 - b. The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **20.2** pounds per hour, nor more than **59.1** tons per 12-month rolling period.
 - c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **20.2** pounds per hour, nor more than **59.1** tons per 12-month rolling period.
 - d. The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **151.7** pounds per hour, nor more than **444.5** tons per 12-month rolling period.
 - e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **371.7** pounds per hour, nor more than **1,089.0** tons per 12-month rolling period.
 - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **223.0** pounds per hour, nor more than **653.4** tons per 12-month rolling period.
 - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **14.6** pounds per hour, nor more than **42.8** tons per 12-month rolling period.
 - h. Best Available Control Technology (BACT) Emission Limit – The discharge of **VOCs** to the atmosphere shall not exceed **0.0054 pounds per MMBtu**.
 - i. NAC 445B.22017 – The opacity from the **S2.001A** shall not equal or exceed **20** percent.
 - j. NAC 445B.2203 – The maximum allowable discharge of **PM₁₀** to the atmosphere from **S2.001A** shall not exceed **0.16** pounds per MMBtu.



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

4. Specific Acid Rain Requirements (NAC 445B.305)

a. The Permittee shall not exceed the SO2 emission levels (acid rain allowances) for S2.001A in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with the Acid Rain provisions (40 CFR 72.9, 40 CFR 73.10(b)(2)):

Table with 7 columns: Pollutant, Calendar Year, 2021, 2022, 2023, 2024, 2025. Rows include SO2 (sulfur dioxide) and NOx (nitrogen oxides) with their respective allowances and limits.

*Note: the NOx emission limit is effective until S2.001A is in operation.

- b. The Permittee shall comply with the SO2 Acid Rain permit application signed September 11, 2024, entitled "Acid Rain Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1.
c. The Permittee shall comply with the NOx acid rain permit application signed September 11, 2024, entitled "Acid Rain Permit Application" and all references contained therein, including the Phase II NOx Compliance Plan and the Phase II NOx Averaging Plan (effective from January 1, 2021 to commencement of operation on natural gas), which are hereby incorporated by reference into this operating permit as Attachment 1 (40 CFR Part 72.40).

5. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of natural gas for calendar day for S2.001A (in scf) by use of a fuel flow meter.
b. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
c. Record the consumption rate of natural gas, in scf, on a cumulative monthly basis, for each 12-month rolling period.
d. Calibrate, operate, and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in scf or hundreds of scf) of natural gas as measured by the fuel flow meter required under A2.5.a. of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and requirements prescribed in 40 CFR Part 75. Missing GCV or fuel flow data may be substituted as prescribed in 40 CFR Part 75, Appendix D.
e. Determine the gross calorific value (GCV) of natural gas consumed by S2.001A by sampling the natural gas in S2.001A on a monthly basis. The GCV of the gas sample shall be determined using one of the following methods: ASTM D1826-94; ASTM D3588-98; ASTM D4891-89; Gas Processors Association (GPA) Standard 2172-96; Calculation of Gross Heating Value; Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis; or GPA Standard 2261-00, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography. Alternatively, at least once each month, the GCV may be verified by the contractual supplier, or the Permittee may use a maximum GCV value of 1,020 Btu/scf. If the supplier certification is used to verify the GCV, the supplier must provide documentation identifying the test method(s) used to determine the GCV.
f. Monitor and record the hours of operation for S2.001A for each calendar day.
g. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

6. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section **I.I.** Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
- b. Testing shall be conducted on the exhaust stack (post controls).
- c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM₁₀ and PM_{2.5} emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
- e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM_{2.5} for determination of compliance.
- f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
- g. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
- h. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators

a. Continuous Emissions Monitoring System (CEMS) – 40 CFR Part 75

The Permittee, upon issuance of this operating permit, shall comply with the NO_x and O₂ CEMS requirements set forth in Section VII.A. of this operating permit.

b. Standards for Nitrogen Oxides (NO_x) (40 CFR 60.44)

(1) The Permittee shall not cause to be discharged into the atmosphere from any affected facility any gases that contain NO_x, expressed as NO₂ in excess of: (40 CFR 60.44(a))

(a) 86 ng/J heat input (0.20 lb/MMBtu) derived from gaseous fossil fuel. (40 CFR 60.44(a)(1))

c. Emissions and Fuel Monitoring (40 CFR 60.45)

(1) The Permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring NO_x emissions, and either oxygen (O₂) or carbon dioxide (CO₂). (40 CFR 60.45(a))

(2) Certain of the CEMS requirements under Part 60.45(a) do not apply to the Permittee under the following conditions: (40 CFR 60.45(b))

(a) Notwithstanding 40 CFR Part 60.13(b), installation of a CEMS for NO_x may be delayed until after the initial performance tests under 40 CFR Part 60.8 have been conducted. If the Permittee demonstrates during the performance test that emissions of NO_x are less than 70 percent of the applicable standards in 40 CFR Part 60.44, a CEMS for measuring NO_x emissions is not required. If the initial performance test results show that NO_x emissions are greater than 70 percent of the applicable standard, the Permittee shall install a CEMS for NO_x within one year after the date of the initial performance tests under 40 CFR Part 60.8 and comply with all other applicable monitoring requirements under 40 CFR Part 60. (40 CFR 60.45(b)(3))

(b) If the Permittee is not required to and elects not to install any CEMS for NO_x, a CEMS for measuring either O₂ or CO₂ is not required. (40 CFR 60.45(b)(4))

(3) For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 40 CFR Part 60.13(d), the following procedures shall be used: (40 CFR 60.45(c))

(a) Methods 7 and 3B of Appendix A of 40 CFR Part 60, as applicable, shall be used for the performance evaluations of NO_x continuous monitoring systems. Acceptable alternative methods for Methods 7 and 3B of Appendix A of 40 CFR Part 60 are given in 40 CFR Part 60.46(d). (40 CFR 60.45(c)(1))

(b) Nitric oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR Part 60. (40 CFR 60.45(c)(2))

(c) The span value for a continuous monitoring system measuring NO_x the span value shall be determined using one of the following procedures: (40 CFR 60.45(c)(3))

(i) Except as provided under 40 CFR 60.45(c)(3)(ii), NO_x span values shall be 500 ppm. (40 CFR 60.45(c)(3)(i))

(ii) As an alternative to meeting the requirements of 40 CFR 60.45(c)(3)(i), the Permittee may elect to use the NO_x span values determined according to 40 CFR Part 75 Appendix A Sections 2.1.2. (40 CFR 60.45(c)(3)(ii))



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators (continued)

c. Emissions and Fuel Monitoring (40 CFR 60.45) (continued)

(4) For any CEMS installed under 40 CFR 60.45(a), the following conversion procedures shall be used to convert the continuous monitoring data into units of the applicable standards (ng/J, lb/MMBtu) (40 CFR 60.45(e)):

(a) When a CEMS for measuring O₂ is selected, the measurement of the pollutant concentration and O₂ concentration shall each be on a consistent basis (wet or dry). Alternative procedures approved by the Administrator shall be used when measurements are on a wet basis. When measurements are on a dry basis, the following conversion procedure shall be used: (40 CFR 60.45(e)(1))

$$E = CF \left(\frac{20.9}{(20.9 - \%O_2)} \right)$$

Where E, C, F, and %O₂ are determined under 40 CFR 60.45(f).

(b) When a CEMS for measuring CO₂ is selected, the measurement of the pollutant concentration and CO₂ concentration shall each be on a consistent basis (wet or dry) and the following conversion procedure shall be used: (40 CFR 60.45(e)(2))

$$E = CF_c \left(\frac{100}{\%CO_2} \right)$$

Where E, C, F_c, and %CO₂ are determined under 40 CFR 60.45(f).

(5) The values used in the equations under Parts 60.45(e)(1) and 60.45(e)(2) of 40 CFR Part 60 Subpart D are derived as follows: (40 CFR 60.45(f))

(a) E = pollutant emissions, ng/J (lb/MMBtu). (40 CFR 60.45(f)(1))

(b) C = pollutant concentration, ng/dscm (lb/dscf), determined by multiplying the average concentration (ppm) for each one-hour period by 4.15 × 10⁴ M ng/dscm per ppm (2.59 × 10⁻⁹ M lb/dscf per ppm) where M = pollutant molecular weight, g/g-mole (lb/lb-mole). M = 46.01 for NO_x. (40 CFR 60.45(f)(2))

(c) %O₂, %CO₂ = O₂ or CO₂ volume (expressed as percent), determined with equipment specified under 40 CFR 60.45(a). (40 CFR 60.45(f)(3))

(d) F, F_c = a factor representing a ratio of the volume of dry flue gases generated to the calorific value of the fuel combusted (F), and a factor representing a ratio of the volume of CO₂ generated to the calorific value of the fuel combusted (F_c), respectively. Values of F and F_c are given as follows (40 CFR 60.45(f)(4)):

(i) For gaseous fossil fuels, F = 2.347 × 10⁻⁷ dscm/J (8,740 dscf/MMBtu). For natural gas, propane, and butane fuels, F_c = 0.279 × 10⁻⁷ scm CO₂/J (1,040 scf CO₂/MMBtu) for natural gas, 0.322 × 10⁻⁷ scm CO₂/J (1,200 scf CO₂/MMBtu) for propane, and 0.338 × 10⁻⁷ scm CO₂/J (1,260 scf CO₂/MMBtu) for butane. (40 CFR 60.45(f)(4)(iv))



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators (continued)

c. Emissions and Fuel Monitoring (40 CFR 60.45) (continued)

(5) The values used in the equations under Parts 60.45(e)(1) and 60.45(e)(2) of 40 CFR Part 60 Subpart D are derived as follows: (40 CFR 60.45(f)) (continued)

(e) The Permittee may use the following equation to determine an F factor (dscm/J or dscf/MMBtu) on a dry basis (if it is desired to calculate F on a wet basis, consult the Administrator) or F_c factor (scm CO₂/J, or scf CO₂/MMBtu) on either basis in lieu of the F or F_c factors specified in 40 CFR 60.45(f)(4): (40 CFR 60.45(f)(5))

$$F = 10^{-6} \frac{[227.2(\%H) + 95.5(\%C) + 35.6(\%S) + 8.7(\%N) - 28.7(\%O)]}{GCV}$$

$$F_c = \frac{2.0 \times 10^{-5}(\%C)}{GCV(SI \text{ units})}$$

$$F = 10^{-6} \frac{[3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)]}{GCV(English \text{ units})}$$

$$F_c = \frac{20.0(\%C)}{GCV(SI \text{ units})}$$

$$F_c = \frac{321 \times 10^3(\%C)}{GCV(English \text{ units})}$$

- (i) %H, %C, %S, %N, and %O are content by weight of hydrogen, carbon, sulfur, nitrogen, and O₂ (expressed as percent), respectively, as determined on the same basis as GCV by ultimate analysis of the fuel fired, using ASTM D1137, D1945, or D1946 (gaseous fuels) as applicable. (These three methods are incorporated by reference, see 40 CFR Part 60.17.) (40 CFR 60.45(f)(5)(i))
- (ii) GVC is the gross calorific value (kJ/kg, Btu/lb) of the fuel combusted determined by the ASTM test method D1826 for gaseous fuels as applicable. (The method is incorporated by reference, see 40 CFR Part 60.17.) (40 CFR 60.45(f)(5)(ii))



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators (continued)

c. Emissions and Fuel Monitoring (40 CFR 60.45) (continued)

(6) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in 40 CFR Part 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows (40 CFR 60.45(g)):

(a) Nitrogen Oxides. Excess emissions for affected facilities using a CEMS for measuring NOx are defined as: (40 CFR 60.45(g)(3))

(i) If the Permittee elects not to comply with 40 CFR 60.44(e), any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in 40 CFR 60.44; or (40 CFR 60.45(g)(3)(i))

(ii) If the Permittee elects to comply with 40 CFR 60.44(e), any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of NOx as measured by a CEMS exceed the applicable standard in 40 CFR Part 60.44. If the Permittee complies with the 30-day NOx standard, the Permittee shall use the most current associated NOx compliance and monitoring requirements in Parts 60.48Da and 60.49Da of 40 CFR Part 60 Subpart Da. (40 CFR 60.45(g)(3)(ii))

d. Test Methods and Procedures (40 CFR 60.46)

(1) In conducting the performance tests required in 40 CFR Part 60.8, and subsequent performance tests as requested by the EPA Administrator, the Permittee shall use as reference methods and procedures the test methods in 40 CFR Part 60 Appendix A or other methods and procedures as specified in 40 CFR Part 60 Subpart D, except as provided in 40 CFR Part 60.8(b). Acceptable alternative methods and procedures are given in 40 CFR 60.46(d). (40 CFR 60.46(a))

(2) The Permittee shall determine compliance with the NOx standard in 40 CFR Part 60.44 as follows (40 CFR 60.46(b)):

(a) The emission rate (E) of NOx shall be computed for each run using the following equation: (40 CFR 60.46(b)(1))

E = CFd * (20.9 / (20.9 - %O2))

Where:

E = Emission rate of pollutant, ng/J (1b/million Btu);

C = concentration of pollutant, ng/dscm (1b/dscf);

%O2 = O2 concentration, percent dry basis; and

Fd = Factor as determined from 40 CFR Part 60 Appendix A Method 19.

(b) 40 CFR Part 60 Appendix A Method 7 shall be used to determine the NOx concentration. (40 CFR 60.46(b)(5))

(i) The sampling site and location shall be the same as for the SO2 sample (i.e. 40 CFR Part 60, Appendix A, Method 1). Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals. (40 CFR 60.46(b)(5)(i))



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators (continued)

d. Test Methods and Procedures (40 CFR 60.46) (continued)

- (2) The Permittee shall determine compliance with the PM, SO₂, and NO_x standards in 40 CFR Part 60.44 as follows (40 CFR 60.46(b)) (continued):
 - (b) 40 CFR Part 60 Appendix A Method 7 shall be used to determine the NO_x concentration. (40 CFR 60.46(b)(5)) (continued)
 - (ii) For each NO_x sample, the emission rate correction factor, grab sampling and analysis procedure of 40 CFR Part 60 Appendix A Method 3B shall be used to determine the O₂ concentration (%O₂). The sample shall be taken simultaneously with, and at the same point as, the NO_x sample. (40 CFR 60.46(b)(5)(ii))
 - (iii) The NO_x emission rate shall be computed for each pair of NO_x and O₂ samples. The NO_x emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples. (40 CFR 60.46(b)(5)(iii))
- (3) The Permittee may use the following as alternatives to the reference methods and procedures in 40 CFR Part 60 Subpart D or in other sections as specified: (40 CFR 60.46(d))
 - (a) The emission rate (E) of NO_x may be determined by using the F_c factor, provided that the following procedure is used: (40 CFR 60.46(d)(1))
 - (i) The emission rate (E) shall be computed using the following equation (40 CFR 60.46(d)(1)(i)):

$$E = CF_c \left(\frac{100}{\%CO_2} \right)$$

Where:

E = Emission rate of pollutant, ng/J (lb/MMBtu);

C = Concentration of pollutant, ng/dscm (lb/dscf);

%CO₂ = CO₂ concentration, percent dry basis; and

FC = Factor as determined in appropriate sections of 40 CFR Part 60 Appendix A Method 19.

- (ii) If and only if the average F_c factor in 40 CFR Part 60 Appendix A Method 19 is used to calculate E and either E is from 0.97 to 1.00 of the emission standard or the relative accuracy of a continuous emission monitoring system is from 17 to 20 percent, then three runs of 40 CFR Part 60 Appendix A Method 3B shall be used to determine the O₂ and CO₂ concentration according to the procedures in 40 CFR 60.46(b)(2)(ii), (4)(ii), or (5)(ii). Then if F_o (average of three runs), as calculated from the equation in 40 CFR Part 60 Appendix A Method 3B, is more than ±3 percent than the average F_o value, as determined from the average values of F_d and F_c in 40 CFR Part 60 Appendix A Method 19, i.e., F_{oa} = 0.209 (F_{da}/F_{ca}), then the following procedure shall be followed: (40 CFR 60.46(d)(1)(ii))
 - I. When F_o is less than 0.97 F_{oa}, then E shall be increased by that proportion under 0.97 F_{oa}, e.g., if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the emission standard. (40 CFR 60.46(d)(1)(ii)(A))
 - II. When F_o is less than 0.97 F_{oa} and when the average difference (d) between the continuous monitor minus the reference methods is negative, then E shall be increased by that proportion under 0.97 F_{oa}, e.g., if F_o is 0.95 F_{oa}, E shall be increased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification. (40 CFR 60.46(d)(1)(ii)(B))
 - III. When F_o is greater than 1.03 F_{oa} and when the average difference d is positive, then E shall be decreased by that proportion over 1.03 F_{oa}, e.g., if F_o is 1.05 F_{oa}, E shall be decreased by 2 percent. This recalculated value shall be used to determine compliance with the relative accuracy specification. (40 CFR 60.46(d)(1)(ii)(C))



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Section VI. Specific Operating Conditions (continued)

A2. Emission Unit S2.001A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators (continued)

d. Test Methods and Procedures (40 CFR 60.46) (continued)

- (3) The Permittee may use the following as alternatives to the reference methods and procedures in 40 CFR Part 60 Subpart D or in other sections as specified: (40 CFR 60.46(d)) (continued)
- (b) For 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, 7C, 7D, or 7E of may be used. If 40 CFR Part 60 Appendix A Method 7C, 7D, or 7E is used, the sampling time for each run shall be at least 1 hour and the integrated sampling approach shall be used to determine the O₂ concentration (%O₂) for the emission rate correction factor. (40 CFR 60.46(d)(5))
- (c) For 40 CFR Part 60 Appendix A Method 3, 40 CFR Part 60 Appendix A Method 3A or 3B may be used. (40 CFR 60.46(d)(6))
- (d) For 40 CFR Part 60 Appendix A Method 3B, 40 CFR Part 60 Appendix A Method 3A may be used. (40 CFR 60.46(d)(7))

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CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002

System 02 – Unit #2 Boiler (REVISED 08/2025, Air Case 12118)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.002	Foster Wheeler balanced draft, dry bottom, single wall fired geometry boiler, model # Monowall, serial # 85-8051, Commencement of Construction: April 11, 1979	4,525,660	487,220

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment

a. Control system consisting of:

- (1) Baghouse to control particulate matter emissions.
- (2) Spray dryer using a lime slurry with a rated **70%** minimum sulfur dioxide removal efficiency.
- (3) Air atomized ignitors to control particulates and opacity during startup and for flame stabilization.
- (4) Multi-stage combustion to control nitrogen oxides emissions through the use of Low NO_x Burners and Over Fired Air.

b. Descriptive Stack Parameters

Stack Height: 450.2 ft
 Stack Diameter: 17.0 ft
 Nominal Exhaust Temperature: 203.0 °F
 Nominal Volumetric Flowrate: 663,991.0 dscfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

On and after the date of startup of **S2.002**, **Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.162** pound per million Btu.
- b. 40 CFR Part 60.42Da(a) Federally Enforceable New Source Performance Standard Requirement – On and after the date on which the performance test required to be conducted under 40 CFR Part 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility for which construction, reconstruction, or modification commenced before or on February 28, 2005, any gases that contain **particulate matter** in excess of:
 - (1) 13 ng/J (**0.03 lb/million Btu**) heat input derived from the combustion of solid, liquid, or gaseous fuel;
 - (2) 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel;
 - (3) and 30 percent of potential combustion concentration (70 percent reduction) when combusting liquid fuel.
- c. NAC 445B.305 Part 70 Program – The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **86.43** pounds per hour.
- d. NAC 445B.305 Part 70 Program – The discharge of **PM** (particulate matter) to the atmosphere will not exceed **86.43** pounds per hour.
- a. 40 CFR Part 60.44Da(a) Federally Enforceable New Source Performance Standard Requirement – On and after the date on which the initial performance test required to be conducted under 40 CFR Part 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility, except as provided under 40 CFR Part 60.44Da(a), any gases which contain **nitrogen oxides** (expressed as NO₂) in excess of the following emission limits, based on a 30-day rolling average, except as provided under 40 CFR Part 60.48Da(j)(1):
 - (1) 210 ng/J (**0.50 lb/million Btu**) heat input derived from the combustion of Sub-bituminous coal;
 - (2) 260 ng/J (**0.60 lb/million Btu**) heat input derived from the combustion of Bituminous coal;
 - (3) 65 percent reduction of potential combustion concentration when combusting solid fuel.
- b. NAC 445B.305 Part 70 Program – The discharge of **NO_x** (nitrogen oxides) to the atmosphere will not exceed **6,309** tons per year, based on a 12-month rolling average.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

On and after the date of startup of **S2.002**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:

- g. NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of **sulfur** to the atmosphere will not exceed **1,728.6** pounds per hour.
- h. NAC 445B.22063 State-Only Requirement – The allowable emission of **sulfur** from fossil fuel-fired power generating unit Number 2 Sierra Pacific Power Company d/b/a NV Energy’s North Valmy Station, located in Air Quality Control Region 147, Basin 64, Clovers Area, must not be greater than **0.3 pounds per million Btu’s** (0.540 kilograms per million kg-cal). The efficiency of the capture of sulfur must be maintained at a minimum of 70 percent, based on a 30-day rolling average.
- i. 40 CFR Part 60.43Da(a) and (g) Federally Enforceable New Source Performance Standard Requirement – On and after the date on which the initial performance test required to be conducted under 40 CFR Part 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid-derived fuel and for which construction, reconstruction, or modification commenced before or on February 28, 2005, except as provided under paragraphs 40 CFR Part 60.43Da(c), (d), (f) or (h), any gases that contain **sulfur dioxide** in excess of:
- (1) 520 ng/J (**1.20 lb/million Btu**) heat input and 10 percent of the potential combustion concentration (90 percent reduction), or
- (2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 260 ng/J (**0.60 lb/million Btu**) heat input.
- Compliance with the emission limitation and percent reduction requirements under this section are both determined on a 30-day rolling average basis except as provided under paragraph (c) of this section.
- j. NAC 445B.305 Part 70 Program – The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **1,728.61** pounds per hour.
- k. NAC 445B.305 Part 70 Program – The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **8,340.0** pounds per hour.
- l. NAC 445B.305 Part 70 Program – The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **55.0** pounds per hour.
- m. NAC 445B.305 Part 70 Program – The discharge of **Pb** (lead) to the atmosphere will not exceed **23.0** pounds per hour.
- n. NAC 445B.22017 Federally Enforceable SIP Requirement – The **opacity** from **S2.002** will not equal or exceed 20%. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.002** is allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR part 60.42Da(b).
- o. 40 CFR Part 60.42Da(b) Federally Enforceable New Source Performance Standard Requirement – The **opacity** from **S2.002** will not exceed **20%** for a period of 6 minutes in any one hour, except for one 6-minute period per hour of not more than 27% opacity.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

2. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

Emission Limits (continued)

On and after the date of startup of **S2.002**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:

p. 40 CFR Part 63.9991 *Federal Enforceable National Emission Standards for Hazardous Air Pollutants for Source Categories Requirements* – *Permittee* must comply with the following emission limits (Table 2 to 40 CFR Part 63 Subpart UUUUU for a coal-fired unit not low rank virgin coal):

- (1) Filterable particulate matter (**PM**) will not exceed 3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh (gross electric output), **total non-Hg HAP metals** will not exceed 5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh, OR the following individual HAP metals:
 - (i) Antimony (**Sb**) will not exceed 8.0E-1 lb/TBtu or 8.0E-3 lb/GWh,
 - (ii) Arsenic (**As**) will not exceed 1.1 lb/TBtu or 2.0E-2 lb/GWh,
 - (iii) Beryllium (**Be**) will not exceed 2.0E-1 lb/TBtu or 2.0E-3 lb/GWh,
 - (iv) Cadmium (**Cd**) will not exceed 3.0E-1 lb/TBtu or 3.0E-3 lb/GWh,
 - (v) Chromium (**Cr**) will not exceed 2.8 lb/TBtu or 3.0E-2 lb/GWh,
 - (vi) Cobalt (**Co**) will not exceed 8.0E-1 lb/TBtu or 8.0E-3 lb/GWh,
 - (vii) Lead (**Pb**) will not exceed 1.2 lb/TBtu or 2.0E-2 lb/GWh,
 - (viii) Manganese (**Mn**) will not exceed 4.0 lb/TBtu or 5.0E-2 lb/GWh,
 - (ix) Nickel (**Ni**) will not exceed 3.5 lb/TBtu or 4.0E-2 lb/GWh,
 - (x) Selenium (**Se**) will not exceed 5.0 lb/TBtu or 6.0E-2 lb/GWh;
- (2) Hydrogen chloride (**HCl**) will not exceed 2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh OR sulfur dioxide (**SO₂**) will not exceed 2.0E-1 lb/MMBtu or 1.5 lb/MWh; and
- (3) Mercury (**Hg**) will not exceed 1.2 lb/TBtu or 1.3E-2 lb/GWh.

q. Specific Acid Rain Requirements

- (1) Sierra Pacific Power Company d/b/a NV Energy - North Valmy Generating Station will not exceed the SO₂ emission levels (acid rain allowances) for **S2.002** in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	Calendar Year	2015	2016	2017	2018	2019
SO ₂ (sulfur dioxide)	Acid Rain Allowance	3,966	3,966	3,966	3,966	3,966
NO _x (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)*	0.46	0.46	0.46	0.46	0.46

*Note: the NO_x emission limit is effective through December 31, 2019.

- (2) Sierra Pacific Power Company d/b/a NV Energy – North Valmy Generating Station will comply with the SO₂ acid rain permit application signed December 16, 2014 entitled “Acid Rain Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 (NAC 445B.305).
- (3) Sierra Pacific Power Company d/b/a NV Energy – North Valmy Generating Station will comply with the NO_x acid rain permit application signed December 16, 2014 entitled “Acid Rain Permit Application” and all references contained therein, including the Phase II NO_x Compliance Plan and the Phase II NO_x Averaging Plan (effective from January 1, 2015 to December 31, 2019), which are hereby incorporated by reference into this operating permit as Attachment 1 (40 CFR Part 72.40, NAC 445B.305).



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable heat input for any fuel combusted in S2.002 will not exceed 2,881.02 MMBtu/hr, averaged over a one-hour period.
- b. S2.002 may combust coal as the primary fuel. The use of #2 fuel oil and “on-spec” used oil is designated for boiler startup and flame stabilization purposes during the startup or shutdown of a coal burner. “On-spec” used oil is defined as nonhazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- c. All “on-spec” used oil combusted in S2.002 will be obtained only from Sierra Pacific Power d/b/a NV Energy facilities.
- d. S2.002 and S2.002A shall not operate simultaneously.
- e. Hours
S2.002 may operate 8,760 hours per calendar year.
- f. Upon notification of initial startup of S2.002A to the Director as required under Section II of this operating permit, the Permittee shall cease operation of S2.002.
- g. Upon notification of initial startup of both S2.001A and S2.002A to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of S2.003, S2.005, S2.006, S2.008, S2.009, S2.010, S2.011, S2.012, S2.0031, S2.032, S2.033, and S2.034.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance/Performance Testing

Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the previous annual compliance testing. As part of the annual compliance test the Permittee shall:

- (1) Conduct and record a Method 5 performance test for particulate matter (PM) on the exhaust stack of S2.002 consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. Compliance with the particulate matter standards contained in B.2.a through B.2.d shall be determined by using the dry basis F factor (O₂) procedures in Method 19 to compute the emission rate. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160 +/- 14 °C (320 +/- 25 °F). For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O₂ concentration. The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ traverse points (40 CFR Part 60.50Da(b)).
- (2) Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of S2.002 consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- (3) The Method 201A and 202 emissions tests on the exhaust stack of S2.002 may be replaced by the Method 5 performance test with the back-half catch (Method 5 and 202) consisting of three valid runs, provided that all particulate matter captured in the Method 5 and 202 test shall be considered PM₁₀ emissions for determination of compliance with the emission limitations established in this permit. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- (4) Conduct and record a Method 6 or 6C performance test for SO₂ on the exhaust stack of S2.002 consisting of three valid runs. The Method 6 or 6C emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)
 - a. Compliance/Performance Testing (continued)
 - (5) Conduct and record a Method 7 or 7E performance test for NO_x on the exhaust stack of **S2.002** consisting of three valid runs. The Method 7 or 7E emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
 - (6) Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.002** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
 - (7) Conduct and record a Method 25 or 25A in conjunction with a Method 18 performance test for VOC on the exhaust stack of **S2.002** consisting of three valid runs. The Method 25, 25A and 18 emissions test(s) must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A and 18.
 - (8) Conduct and record a Method 29 performance test of Pb on the exhaust stack of **S2.002** consisting of three valid runs. The Method 29 emission test must be conducted in accordance with 40 CFR Part 60, Method 29.
 - (9) If an anticipated major boiler overhaul is to be performed which will coincide with a compliance test, the compliance testing will be performed prior to the overhaul, or as soon as practicable following the overhaul, but not earlier than 60 days following the overhaul.
 - (10) During each compliance test, record the opacity of the discharge from the exhaust stack of **S2.002** using either a calibrated continuous opacity monitor or a visible emissions evaluation conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The Method 9 visible emissions test must be conducted by a certified visible emissions reader for a period of at least 60 minutes (recorded as ten 6-minute averages).
 - (11) The performance tests will be conducted at the maximum operating heat input rate limit established in B.3 of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.2 & 3. The *Permittee* shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
 - (12) The *Permittee* shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternative to the reference methods and procedures provided in 40 CFR Part 60.48Da(e) may be utilized to the extent that they are applicable to **S2.002**, and must be identified in the testing procedures as alternative methods.
 - (13) During each performance test required in B.4.a.(1) through (8) of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 5 with the back-half catch or Method 201A and 202, Method 6 or 6C, Method 7 or 7E, Method 10, Method 25A or 25 and 18, and Method 29 performance tests for PM₁₀, SO₂, NO_x, CO, VOC, and Pb must be converted to emissions of PM₁₀, SO₂, sulfur, NO_x, CO, VOC, and Pb (lb/hr and lb/MMBtu), each.
 - (14) As a result of the most recent performance test performed in B.4.a.(1), (2), and (3) of this section, derive emission factors for each of the following:
 - (i) Pounds of PM per MMBtu (lbs-PM/MMBtu), filterable and condensable.
 - (ii) Pounds of PM₁₀ per MMBtu (lbs-PM₁₀/MMBtu), filterable and condensable.

These emissions factors will be based on the average of the 3 test runs.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

a. Compliance/Performance Testing (continued)

(15) Within 60 days after completing the performance tests and opacity observations contained in B.4.a. of this section, the **Permittee** shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).

(16) Conduct and record the Relative Accuracy Test Audit (RATA) as specified in Section VII.A.

b. Monitoring

The **Permittee**, upon startup of **S2.002**, will:

- (1) Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of coal (in tons) combusted in **S2.002**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.002**.
- (2) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of coal as measured by the coal mass measurement device required in B.4.b.(1) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- (3) Install, calibrate, maintain, and operate a continuous emissions monitoring systems (CEMS), and record the output of the system, for measuring the opacity of emissions, SO₂ emissions, NO_x emissions and the CO₂ (or O₂) content of the flue gas at each location where SO₂ and NO_x emissions are monitored as specified in 40 CFR Part 60 Subpart Da and Section VII.A. of this operating permit.
- (4) Install, calibrate, maintain, and operate a CDCS to continuously record the SO₂ concentration, NO_x concentration, carbon dioxide or oxygen content, as specified in 40 CFR Part 60 Subpart Da and Section VII.A. of this operating permit.
- (5) Install, calibrate, maintain, and operate a Continuous Opacity Monitoring System (COMS) as specified in 40 CFR Part 60 Subpart D and Section VII.B. of this operating permit.
- (6) Install, calibrate, operate and maintain a CDCS to continuously record the opacity (in percent opacity) as specified in 40 CFR Part 60 Subpart D and Section VII.B. of this operating permit.
- (7) The owner or operator shall determine and record the heat input rate, in units of MMBtu/hr, to each affected unit for every hour or part of an hour any fuel is combusted (40 CFR Part 75.10(c)).
- (8) The results of the 1-hour average for SO₂ emissions (in lb/hr), determined in B.4.b.(3) of this section, shall be divided by 2 to obtain the average Sulfur emissions in lb/hour.
- (9) When it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR Part 60.49Da(f), the owner or operator shall use the reference methods and procedures as specified in 40 CFR Part 60.49Da(h). Acceptable alternative methods and procedures are given in 40 CFR Part 60.49Da(j).
 - (i) Method 6 of appendix A of Part 60 shall be used to determine the SO₂ concentration at the same location as the SO₂ monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.
 - (ii) Method 7 of appendix A of Part 60 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.
 - (iii) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B of appendix A of Part 60 shall be used to determine the CO₂ (or O₂) concentration at the same location as the CO₂ (or O₂) monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring

The *Permittee*, upon startup of S2.002, will:

- (9) When it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR Part 60.49Da(f), the owner or operator shall use the reference methods and procedures as specified in 40 CFR Part 60.49Da(h). Acceptable alternative methods and procedures are given in 40 CFR Part 60.49Da(j). (continued)
- (iv) The procedures in Method 19 of appendix A of Part 60 shall be used to compute each 1-hour average concentration in ng/J (lb/MMBtu) heat input.
- (10) Data from a continuous flow monitoring system and moisture monitoring system as applicable as required in B.4.b.(3) of this section, certified according to the requirements of 40 CFR Part 75.20(c) and appendix A to Part 75, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR Part 75.21 and appendix B to Part 75 of this chapter, may be used to show continual compliance with the heat input rate in MMBtu/hr as required in B.3.a. of this section. Flow rate data and moisture data as applicable, reported to meet the requirements of this permit shall not include substitute data values derived from the missing data procedures in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75. Other methods of determining the heat input rate may be used with the approval of the Director.
- (11) Install, calibrate, operate and maintain a fuel flow meter to continuously measure the volume of No. 2 distillate fuel oil and “on-spec” used oil (in gallons) combusted in S2.002. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in S2.002 in accordance with the requirements prescribed in 40 CFR Part 75.
- (12) Using either the Flow Proportional or Manual Method described in 40 CFR Part 75, Appendix D 2.2.1, 2.2.3, or 2.2.4 prepare a sample representative of the No. 2 distillate fuel oil and “on-spec” used oil combusted in S2.002 for each day (or a composite sample representative of the entire tank upon delivery of No. 2 distillate fuel oil and “on-spec” used oil to the tank) while combusting that fuel. The sulfur content of the fuel oil sample shall be determined in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D or the CEMS required in B.4.b.(3). The gross calorific value of this sample will be determined in accordance with ASTM D240-00, “Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter” or ASTM D4809-00, “Standard Test Method for Heat or Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)” and the requirements prescribed in 40 CFR Part 75, Appendix F, Section 3.3.6.2. Alternatively, an estimated maximum gross calorific value of 20,000 Btu per pound (Btu/lb) @ 7.4 pounds per gallon (lb/gal) for No. 2 distillate fuel oil may be used.
- (13) Monitor the hours of operation of S2.002 on a daily basis.

c. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, *Permittee* will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from S2.002.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from S2.002 four or more data values equally spaced over each hour and averaged the values as specified in 40 CFR Part 64.3(b)(4)(ii). Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure drop shall not exceed 9.5 inches of water for the baghouse controlling emissions from S2.002. Excursions shall be defined as anytime the baghouse pressure drop exceeds this indicator range.
- (4) On an annual basis, perform an inspection of the baghouse system for S2.002 including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting (continued)

c. 40 CFR Part 64 Compliance Assurance Monitoring Program (continued)

(5) The required monitoring established in B.4.c.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping for each week, or part of the week that **S2.002** is operating:

- (i) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.002**, each week that **S2.002** is in operation.
- (ii) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
- (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.002**, and any corrective actions taken.

(6) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.

d. Recordkeeping

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.002** is operating:

(1) Follow the notification and recordkeeping provisions of 40 CFR Part 60.7 and 60.19.

(2) The total hourly quantity of:

- (i) Coal (in tons) combusted, for each hour of operation based on the data recorded by the CDCS as required in B.4.b.(2) of this section.
- (ii) No. 2 distillate fuel oil and “on-spec” used oil (in gallons) combusted, for each day of operation, as provided by the fuel flow meter required in B.4.b.(11) of this section.

(3) Daily hours of operation:

- (i) The total daily hours of operation for the corresponding date.
- (ii) For boiler start-up, flame stabilization, and shut down, record the total hours of start-up, flame stabilization, and shut down operations for the corresponding date.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.002** is operating:

- (4) (i) The average hourly heat input of the coal, fuel oil, or “on-spec” used oil combusted, in MMBtu per hour. The hourly heat inputs will be calculated as follows and as described in B.4.b.(10) of this section:

$$HI = Q_w * (1/F_c) * (\%CO_{2w}/100)$$

Where:

HI = Hourly heat input rate during unit operation, MMBtu/hr

Q_w = Hourly average volumetric flow rate during unit operation, wet basis, scfh

F, F_c = factor representing a ratio of the volume of dry flue gases generated to the caloric value of the fuel combusted (F), and a factor representing a ratio of the volume of CO₂ generated to the calorific value of the fuel combusted (F_c), respectively. Table 1 lists the values of F and F_c for different fuels.

Table 1: F and F_c Factors¹

	F-factor (dscf/MMBtu)	F_c-factor (scf CO₂/MMBtu)
efined by ASTM D388–99):		
Anthracite	10,100	1,970
Bituminous	9,780	1,800
Sub-bituminous	9,820	1,840
Lignite	9,860	1,910
Oil	9,190	1,420

¹Determined at standard conditions: 20 °C (68 °F) and 29.92 inches of mercury.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that S2.002 is operating:

- (4) (ii) Equations F-7a and F-7b may be used in lieu of the F or Fc factors specified in the table above to calculate a site-specific dry-basis F factor (dscf/MMBtu) or a site-specific Fc factor (scf CO2/MMBtu), on either a dry or wet basis. At a minimum, the site-specific F or Fc factor must be based on 9 samples of the fuel. Fuel samples taken during each run of a RATA are acceptable for this purpose. The site-specific F or Fc factor must be re-determined at least annually, and the value from the most recent determination must be used in the emission calculations. Alternatively, the previous F or Fc value may continue to be used if it is higher than the value obtained in the most recent determination. The owner or operator shall keep records of all site-specific F or Fc determinations, active for at least 3 years. (Calculate all F and Fc factors at standard conditions of 20 °C (68 °F) and 29.92 inches of mercury).

Eq. F-7a: F = (3.64(%H) + 1.53(%C) + 0.57(%S) + 0.14(%N) - 0.46(%O)) / GCV x 10^6

Eq. F-7b: Fc = (321 x 10^3 (%C)) / GCV

Where:

H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as the gross calorific value (GCV) by ultimate analysis of the fuel combusted using ASTM D3176-89 (Reapproved 2002), Standard Practice for Ultimate Analysis of Coal and Coke, (solid fuels), ASTM D5291-02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, (liquid fuels) or computed from results using ASTM D1945-96 (Reapproved 2001), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, or ASTM D1946-90 (Reapproved 2006), Standard Practice for Analysis of Reformed Gas by Gas Chromatography, (gaseous fuels) as applicable.

GCV is the gross calorific value (Btu/lb) of the fuel combusted determined by ASTM D5865-01a, Standard Test Method for Gross Calorific Value of Coal and Coke, and ASTM D240-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, or ASTM D4809-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method) for oil; and ASTM D3588-98, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, GPA Standard 2172-96 Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis, GPA Standard 2261-00 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, or ASTM D1826-94 (Reapproved 1998), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for gaseous fuels, as applicable.

- (4) (iii) For affected units that combust a combination of a fuel (or fuels) listed in Table 1 above with any fuel(s) not listed in Table 1, the F or Fc value is subject to the Administrator's approval.



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that S2.002 is operating:

- (4) (iv) For affected units that combust combinations of fuels listed in Table 1 above, prorate the F or F_c factors determined by section B.4.d.(4)(i) or B.4.d.(4)(ii) in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^n X_i F_i \qquad F_c = \sum_{i=1}^n X_i (F_c)_i$$

Where,

X_i = Fraction of total heat input derived from each type of fuel (e.g., natural gas, bituminous coal, wood). Each X_i value shall be determined from the best available information on the quantity of fuel combusted and the GCV value, over a specified time period. The owner or operator shall explain the method used to calculate X_i in the hardcopy portion of the monitoring plan for the unit. The X_i values may be determined and updated either hourly, daily, weekly, or monthly. In all cases, the prorated F factor used in the emission calculations shall be determined using the X_i values from the most recent update.

F_i or (F_c)_i = Applicable F or F_c factor for each fuel type determined in accordance with section B.4.d.(4)(i) or B.4.d.(4)(ii).

n = Number of fuels being combusted in combination.

- (4) (v) As an alternative to prorating the F or F_c factor as described in section B.4.d.(4)(iv), a “worst-case” F or F_c factor may be reported for any unit operating hour. The worst-case F or F_c factor shall be the highest F or F_c value for any of the fuels combusted in the unit.
- (5) The hourly emission rate of PM and PM₁₀ each:
 - (i) In pounds per hour (lbs/hr). The hourly emission rates will be calculated from the hourly heat input rate, as determined in B.4.d.(4) of this section, and the emission factor derived in B.4.a.(14) of this section.
 - (6) The emission rates of sulfur and SO₂ each, in pounds per hour (lbs/hr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in B.4.b.(3) of this section for each averaging period described below:
 - (i) The sulfur emissions in pounds per hour (lbs/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (ii) The Sulfur and SO₂ emissions in pounds per million Btu (lbs/MMBtu)

The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standards (e.g. lb/MMBtu and lbs/hr, 24-hour and 30-day rolling average periods and percent reduction).



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Recordkeeping (continued)

The **Permittee** will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.002** is operating:

- (7) The annual emissions rate of NO_x in tons per year (tons/yr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in B.4.b.(3) of this section. The compliance determination procedures established in 40 CFR Part 60.48Da(d) will be used to convert the continuous monitoring data into units of the applicable standard (e.g. lb/MMBtu, 24-hour, 30-day, annual rolling average periods, percent reduction and 1-hour average).
- (8) The measured opacity (in percent opacity) from the continuous opacity monitoring system required in B.4.b.(5) of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
 - (i) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.3 and as set forth in 40 CFR Part 60.13(h).
 - (ii) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42Da(b).
- (9) Observations made and any corrective actions taken as a result of the baghouse inspection required in B.4.c.(4).
- (10) Retain all records of laboratory analyses performed to show that all “on-spec” used oil is nonhazardous as defined by the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- (11) Retain recordkeeping which documents that all of the “on-spec” used oil burned in **S2.002** is generated only in Sierra Pacific Power Company d/b/a NV Energy facilities.
- (12) Retain all required records in accordance with Section V.A of this operating permit.

e. Reporting

Permittee will:

- (1) Report all excess emissions from **S2.002** as required in Section III.B and III.C of this operating permit.
- (2) Report excess emissions and monitoring system performance (MSP) to the Director and to the Administrator of U.S. EPA each calendar quarter. The quarterly reports will be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report will include the information required in 40 CFR Part 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime to be reported will be in accordance with 40 CFR Part 60.51Da(d).
- (3) Report all deviations as required in Sections V.C and V.F. of this operating permit.
- (4) Report all excursions as required in section VI.B.4.c.(6) of this operating permit.
- (5) Submit semi-annual monitoring reports as required in Section V.C of this operating permit.
- (6) Certify compliance with all applicable requirements as required in Section V.E of this operating permit.
- (7) Report the results of the performance tests required in B.4.a of this section.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1))

- a. **Permittee** will be required to comply with the applicable requirements as required in Section VIII. of this operating permit.



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CLASS I AIR QUALITY OPERATING PERMIT

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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A

System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing) (REVISED 02/2026, Air Case 12720)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.002A	Unit #2 Boiler (Manufactured by Foster Wheeler; Model Monowall; Serial 85-8051; Date Apr 11, 1979; Max Heat Input 3,048 MMBtu/hr)	4,525,660	487,220

1. Air Pollution Control Equipment (NAC 445B.3405)
 - a. Emissions from **S2.002A** shall be controlled by **Low NO_x Burners**.
 - b. Descriptive Stack Parameters
 Stack Height: 450.2 feet
 Stack Diameter: 19.0 feet
 Stack Temperature: 291.0 °F
 Exhaust Flow: 549,000.0 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.3405)
 - a. **S2.002A** may consume only **natural gas**.
 - b. The maximum allowable fuel consumption rate for **S2.002A** shall not exceed **2,988,235.3 standard cubic feet (scf)** per hour, averaged over a calendar day, nor more than **17,511,057,100.0 scf** per 12-month rolling period.
 - c. **S2.002A** and **S2.002** shall not operate simultaneously.
 - d. Hours
 - (1) **S2.002A** may operate a total of **24** hours per day.
 - (2) **S2.002A** may operate a total of **5,860** hours per year.
 - e. Upon notification of initial startup of **S2.002A** to the Director as required under Section II of this operating permit, the Permittee shall cease operation of **S2.002**.
 - f. Upon notification of initial startup of both **S2.001A** and **S2.002A** to the Director, as required under Section II of this operating permit, the Permittee shall cease operation of **S2.003, S2.005, S2.006, S2.008, S2.009, S2.010, S2.011, S2.012, S2.0031, S2.032, S2.033, and S2.034**.

3. Emission Limits (NAC 445B.305, NAC 445B.3405)
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.002A** the following pollutants in excess of the following specified limits:
 - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **22.7** pounds per hour, nor more than **66.5** tons per 12-month rolling period.
 - b. The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **22.7** pounds per hour, nor more than **66.5** tons per 12-month rolling period.
 - c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **22.7** pounds per hour, nor more than **66.5** tons per 12-month rolling period.
 - d. The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **170.8** pounds per hour, nor more than **500.3** tons per 12-month rolling period.
 - e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **418.4** pounds per hour, nor more than **1,225.8** tons per 12-month rolling period.
 - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **251.0** pounds per hour, nor more than **735.5** tons per 12-month rolling period.
 - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **16.4** pounds per hour, nor more than **48.2** tons per 12-month rolling period.
 - h. Best Available Control Technology (BACT) Emission Limit – The discharge of **VOCs** to the atmosphere shall not exceed **0.0054 pound per MMBtu**.
 - i. NAC 445B.22017 – The opacity from the **S2.002A** shall not equal or exceed **20** percent.
 - j. NAC 445B.2203 – The maximum allowable discharge of **PM₁₀** to the atmosphere from **S2.002A** shall not exceed **0.16** pounds per MMBtu.



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

4. Specific Acid Rain Requirements (NAC 445B.305)

a. The Permittee shall not exceed the SO2 emission levels (acid rain allowances) for S2.002A in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with the Acid Rain provisions (40 CFR 72.9, 40 CFR 73.10(b)(2)):

Table with 7 columns: Pollutant, Calendar Year, 2021, 2022, 2023, 2024, 2025. Rows include SO2 (sulfur dioxide) and NOx (nitrogen oxides) with their respective allowances and limits.

Note: the NOx emission limit is effective until S2.002A is in operation.

- b. The Permittee shall comply with the SO2 Acid Rain permit application signed September 11, 2024, entitled "Acid Rain Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1.
c. The Permittee shall comply with the NOx acid rain permit application signed September 11, 2024, entitled "Acid Rain Permit Application" and all references contained therein, including the Phase II NOx Compliance Plan and the Phase II NOx Averaging Plan (effective from January 1, 2021 to commencement of operation on natural gas), which are hereby incorporated by reference into this operating permit as Attachment 1.

5. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of natural gas for calendar day for S2.002A (in scf) by use of a fuel flow meter.
b. Record the corresponding average hourly consumption rate in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
c. Record the consumption rate of natural gas, in scf, on a cumulative monthly basis, for each 12-month rolling period.
d. Calibrate, operate, and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in scf or hundreds of scf) of natural gas as measured by the fuel flow meter required under B2.5.a. of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and requirements prescribed in 40 CFR Part 75. Missing GCV or fuel flow data may be substituted as prescribed in 40 CFR Part 75, Appendix D.
e. Determine the gross calorific value (GCV) of natural gas consumed by S2.002A by sampling the natural gas in S2.002A on a monthly basis. The GCV of the gas sample shall be determined using one of the following methods: ASTM D1826-94; ASTM D3588-98; ASTM D4891-89; Gas Processors Association (GPA) Standard 2172-96; Calculation of Gross Heating Value; Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis; or GPA Standard 2261-00, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography. Alternatively, at least once each month, the GCV may be verified by the contractual supplier, or the Permittee may use a maximum GCV value of 1,020 Btu/scf. If the supplier certification is used to verify the GCV, the supplier must provide documentation identifying the test method(s) used to determine the GCV.
f. Monitor and record the hours of operation for S2.002A for each calendar day.
g. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

6. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1)))

The Permittee, upon issuance of this operating permit, shall conduct and record renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section **I.I.** Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
- b. Testing shall be conducted on the exhaust stack (post controls).
- c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM₁₀ and PM_{2.5} emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
- e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM_{2.5} for determination of compliance.
- f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
- g. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
- h. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units

a. Continuous Emissions Monitoring System (CEMS) – 40 CFR Part 75

The Permittee, upon issuance of this operating permit, shall comply with the NO_x and O₂ CEMS requirements set forth in Section VII.A. of this operating permit.

b. Standards for Sulfur Dioxide (SO₂) (40 CFR Part 60.43Da)

(1) The Permittee shall not cause to be discharged into the atmosphere from any affected facility which combusts gaseous fuels (except for liquid or gaseous fuels derived from solid fuels and as provided under 40 CFR 60.43Da(e) or (h) and for which construction commenced before or on February 28, 2005, any gases that contain SO₂ in excess of (40 CFR 60.43Da(b)):

(a) 100 percent of the potential combustion concentration (zero percent reduction) when emissions are less than 86 ng/J (0.20 lb/MMBtu) heat input. (40 CFR 60.43Da(b)(2))

(2) Compliance with the emission limitation and percent reduction requirements under 40 CFR Part 60 Subpart Da are both determined on a 30-day rolling average basis except as provided under 40 CFR 60.43(c). (40 CFR 60.43Da(g))

c. Standards for Nitrogen Oxides (NO_x) (40 CFR 60.44Da)

(1) The Permittee shall not cause to be discharged into the atmosphere from any affected facility for which construction commenced before July 10, 1997 any gases that contain NO_x (expressed as NO₂) in excess of the applicable emissions limit in 40 CFR 60.44Da(a)(1) and (2). (40 CFR 60.44Da(a))

(a) The Permittee shall not cause to be discharged into the atmosphere any gases that contain NO_x in excess of 86 ng/J (0.20 lb/MMBtu) and as determined on a 30-boiler operating day rolling average basis. (40 CFR 60.44Da(a)(1))

d. Compliance Provisions (40 CFR 60.48Da)

(1) The applicable SO₂ emissions limit under 40 CFR 60.43Da, and NO_x emissions limit under 40 CFR 60.44Da apply at all times except during periods of startup, shutdown, or malfunction. (40 CFR 60.48Da(a))

(2) Compliance with the applicable SO₂ emissions limit and percentage reduction requirements under 40 CFR 60.43Da and NO_x emissions limit under 40 CFR 60.44Da is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30-boiler operating day rolling average emission rate for both SO₂ and NO_x as applicable. (40 CFR 60.48Da(b))

(3) Compliance with the applicable SO₂ emissions limits under 40 CFR Part 60.43Da, the NO_x emissions limits under 40 CFR 60.44Da is based on the average emission rates for SO₂ and NO_x for the first 30 successive boiler operating days. The initial performance test is the only test in which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first boiler operating day of the 30 successive boiler operating days is completed within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. (40 CFR 60.48Da(c))

(4) Compliance with applicable 30-boiler operating day rolling average SO₂ and NO_x emissions limits is determined by calculating the arithmetic average of all hourly emission rates for SO₂ and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction. (40 CFR 60.48Da(d))

(5) If the Permittee has not obtained the minimum quantity of emission data as required under 40 CFR 60.49Da, compliance of the affected facility with the emission requirements under 40 CFR 60.43Da and 60.44Da for the day on which the 30-day period ends may be determined by the Administrator by following the applicable procedures in 40 CFR Part 60 Appendix A Section 7 of Method 19. (40 CFR 60.48Da(h))



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

d. Compliance Provisions (40 CFR 60.48Da) (continued)

(6) Affirmative defense for exceedance of emissions limit during malfunction. The Permittee may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed, however, if the Permittee fails to meet the burden of proving all of the requirements in the affirmative defense as specified in 40 CFR 60.48Da(s)(1) and (2). The affirmative defense shall not be available for claims for injunctive relief. (40 CFR 60.48Da(s))

(a) To establish the affirmative defense in any action to enforce such a limit, the Permittee must timely meet the notification requirements in 40 CFR 60.48Da(s)(2) and must prove by a preponderance of evidence that: (40 CFR 60.48Da(s)(1))

(i) The excess emissions: (40 CFR 60.48Da(s)(1)(i))

I. Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and (40 CFR 60.48Da(s)(1)(i)(A))

II. Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and (40 CFR 60.48Da(s)(1)(i)(B))

III. Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and (40 CFR 60.48Da(s)(1)(i)(C))

IV. Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and (40 CFR 60.48Da(s)(1)(i)(D))

(ii) Repairs were made as expeditiously as possible when the applicable emissions limits were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and (40 CFR 60.48Da(s)(1)(ii))

(iii) The frequency, amount, and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and (40 CFR 60.48Da(s)(1)(iii))

(iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and (40 CFR 60.48Da(s)(1)(iv))

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health; and (40 CFR 60.48Da(s)(1)(v))

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and (40 CFR 60.48Da(s)(1)(vi))

(vii) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and (40 CFR 60.48Da(s)(1)(vii))

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and (40 CFR 60.48Da(s)(1)(viii))

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction. (40 CFR 60.48Da(s)(1)(ix))



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

d. Compliance Provisions (40 CFR 60.48Da) (continued)

(6) Affirmative defense for exceedance of emissions limit during malfunction. The Permittee may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined at 40 CFR 60.2. Appropriate penalties may be assessed, however, if the Permittee fails to meet the burden of proving all of the requirements in the affirmative defense as specified in 40 CFR 60.48Da(s)(1) and (2). The affirmative defense shall not be available for claims for injunctive relief. (40 CFR 60.48Da(s)) (continued)

(b) **Notification.** If the Permittee experiences an exceedance of its emission limit(s) during a malfunction, the Permittee shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction or, if it is not possible to determine within two business days whether the malfunction caused or contributed to an exceedance, no later than two business days after the Permittee knew or should have known that the malfunction caused or contributed to an exceedance, but, in no event later than two business days after the end of the averaging period, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The Permittee seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in 40 CFR 63.9991 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in 40 CFR 60.48Da(s)(1). The Permittee may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45-day period. Until a request for an extension has been approved by the Administrator, the Permittee is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance. (40 CFR 60.48Da(s)(2))

e. Emissions Monitoring (40 CFR 60.49Da)

(1) The Permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring NO_x emissions discharged to the atmosphere; or (40 CFR 60.49Da(c)(1))

(2) If the Permittee has installed a NO_x emission rate CEMS to meet the requirements of 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR Part 60 Subpart Da, except that the Permittee shall also meet the requirements of 40 CFR 60.51Da. Data reported to meet the requirements of 40 CFR 60.51Da shall not include data substituted using the missing data procedures in 40 CFR Part 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75. (40 CFR 60.49Da(c)(2))

(3) If the Permittee does not comply with an output-based limit, the Permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the O₂ content of the flue gases at each location where NO_x emissions are monitored. If the Permittee is subject to a lb/MMBtu SO₂ emission limit under 40 CFR 60.43Da, and if the Permittee has installed and certified a CO₂ or O₂ monitoring system according to 40 CFR Part 75.20(c) of Appendix A and the monitoring system continues to meet the applicable quality-assurance provisions of 40 CFR 75.21 and 40 CFR Part 75 Appendix B, that CEMS may be used together with the 40 CFR Part 75 SO₂ concentration monitoring system described in 40 CFR 60.49Da(b), to determine the SO₂ emission rate in lb/MMBtu. SO₂ data used to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR Part 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75. (40 CFR 60.49Da(d))



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

e. Emissions Monitoring (40 CFR 60.49Da) (continued)

- (4) The CEMS under 40 CFR 60.49Da(c) and (d) are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments. (40 CFR 60.49Da(e))
- (5) The Permittee shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with CEMS, the Permittee shall supplement emission data with other monitoring systems approved by the Administrator or the reference methods and procedures as described in 40 CFR 60.49Da(h). (40 CFR 60.49Da(f)(1))
- (6) The 1-hour averages required under 40 CFR 60.13(h) are expressed in ng/J (lb/MMBtu) heat input and used to calculate the average emission rates under 40 CFR 60.48Da. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(h)(2). (40 CFR 60.49Da(g))
- (7) When it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR 60.49Da(f), the Permittee shall use the reference methods and procedures as specified in 40 CFR 60.49(f). Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j). (40 CFR 60.49Da(h))
- (8) The Permittee shall use methods and procedures in 40 CFR 60.49Da(i) to conduct monitoring system performance evaluations under 40 CFR 60.49Da60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j). (40 CFR 60.49Da(i))
 - (a) 40 CFR Part 60 Appendix A Methods 3B and 7 shall be used to determine O₂ and NO_x concentrations, respectively. (40 CFR 60.49Da(i)(1))
 - (b) NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N₂, as applicable) under Performance Specification 2 40 CFR Part 60 Appendix B. (40 CFR 60.49Da(i)(2))
 - (c) The span values for a CEMS measuring NO_x shall be determined using one of the following procedures: (40 CFR 60.49Da(i)(3))
 - (i) Except as provided under 40 CFR 60.49Da(i)(3)(ii), NO_x span values shall be 500 ppm. (40 CFR 60.49Da(i)(3)(i))
 - (ii) As an alternative to meeting the requirements of 40 CFR 60.49Da(i)(3)(i), the Permittee may elect to use the NO_x span values determined according to 40 CFR Part 75 Appendix A Section 2.1.2. (40 CFR 60.49Da(i)(3)(ii))
- (9) The Permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR Part 60 Subpart Da: (40 CFR 60.49Da(j))
 - (a) For 40 CFR Part 60 Appendix A Method 7, Method 7A, 7C, 7D, or 7E of 40 CFR Part 60 Appendix A may be used. If 40 CFR Part 60 Appendix A Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour. (40 CFR 60.49Da(j)(2))
 - (b) For 40 CFR Part 60 Appendix A Method 3, Method 3A or 3B of 40 CFR Part 60 Appendix A may be used if the sampling time is 1 hour. (40 CFR 60.49Da(j)(3))
 - (c) For 40 CFR Part 60 Appendix A Method 3B, 40 CFR Part 60 Appendix A Method 3A may be used. (40 CFR 60.49Da(j)(4))



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

e. Emissions Monitoring (40 CFR 60.49Da) (continued)

- (10) Alternatively, data from a continuous flow monitoring system certified according to the requirements of 40 CFR Part 75.20(c) and 40 CFR Part 75 Appendix A and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR 75.21 and 40 CFR Part 75 Appendix B, may be used. Flow rate data reported to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR Part 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75. (40 CFR 60.49Da(m))
- (11) The Permittee may use, as an alternative to the requirements specified in either 40 CFR 60.49Da(m), a fuel flow monitoring system certified and operated according to the requirements of 40 CFR Part 75 Appendix D. (40 CFR 60.49Da(n))
- (12) The Permittee shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The Permittee shall comply with the requirements in their plan. The plan must address the requirements in 40 CFR 60.49Da(s)(1) through (6). (40 CFR 60.49Da(s))
 - (a) Installation of the CEMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of the exhaust emissions (e.g., on or downstream of the last control device); (40 CFR 60.49Da(s)(1))
 - (b) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems (40 CFR 60.49Da(s)(2));
 - (c) Performance evaluation procedures and acceptance criteria (e.g., calibrations, relative accuracy test audits (RATA), etc.); (40 CFR 60.49Da(s)(3))
 - (d) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 60.13(d) or 40 CFR Part 75 (as applicable); (40 CFR 60.49Da(s)(4))
 - (e) Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 60.13 or 40 CFR Part 75 (as applicable); and (40 CFR 60.49Da(s)(5))
 - (f) Ongoing recordkeeping and reporting procedures in accordance with the requirements of 40 CFR Part 60 Subpart Da. (40 CFR 60.49Da(s)(6))
- (13) The Permittee using a NO_x, CO₂, and O₂ CEMS to meet the requirements of 40 CFR Part 60 Subpart Da shall install, certify, operate, and maintain the CEMS as specified in 40 CFR 60.49Da(w)(1) through (5). (40 CFR 60.49Da(w))
 - (a) Each NO_x and O₂ CEMS required under 40 CFR 60.49Da(b) through (d) shall be installed, certified, and operated in accordance with the applicable procedures in 40 CFR Part 60 Appendix B Performance Specification 2 or 3 or according to the procedures in 40 CFR Part 75 Appendices A and B. Daily calibration drift assessments and quarterly accuracy determinations shall be done in accordance with 40 CFR Part 60 Appendix F Procedure 1, and a data assessment report (DAR), prepared according to 40 CFR Part 60 Appendix F Section 7, shall be submitted with each compliance report required under 40 CFR 60.51Da. (40 CFR 60.49Da(w)(1))
 - (b) As an alternative to meeting the requirements of 40 CFR 60.49Da(w)(1), the Permittee may elect to implement the following alternative data accuracy assessment procedures. For all required O₂ CEMS and for NO_x CEMS with span values greater than or equal to 100 ppm, the daily calibration error test and calibration adjustment procedures described in 40 CFR Part 75 Appendix B Sections 2.1.1 and 2.1.3 may be followed instead of the CD assessment procedures in 40 CFR Part 60 Appendix F Procedure 1, section 4.1. If this option is selected, the data validation and out-of-control provisions in 40 CFR Part 75 Appendix B Sections 2.1.4 and 2.1.5 shall be followed instead of the excessive CD and out-of-control criteria in 40 CFR Part 60 Appendix F Procedure 1, Section 4.3. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in 40 CFR Part 60 Appendix F Procedure 1, Section 4.3 shall apply to NO_x span values less than 100 ppm; (40 CFR 60.49Da(w)(2))



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

e. Emissions Monitoring (40 CFR 60.49Da) (continued)

(13) The Permittee using a NO_x, CO₂, and O₂ CEMS to meet the requirements of 40 CFR Part 60 Subpart Da shall install, certify, operate, and maintain the CEMS as specified in 40 CFR 60.49Da(w)(1) through (5). (40 CFR 60.49Da(w)) (continued)

(c) As an alternative to meeting the requirements of 40 CFR 60.49Da(w)(1) of 40 CFR Part 60 Subpart Da, the Permittee may elect to implement the following alternative data accuracy assessment procedures. For all required O₂ CEMS and for NO_x CEMS with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with 40 CFR Part 75 Appendix B Section 2.2.1, instead of performing the cylinder gas audits (CGAs) described in 40 CFR Part 60 Appendix F Procedure 1, Section 5.1.2. If this option is selected: The frequency of the linearity checks shall be as specified in 40 CFR Part 75 Appendix B Section 2.2.1; the applicable linearity specifications in 40 CFR Part 75 Appendix A Section 3.2 shall be met; the data validation and out-of-control criteria in 40 CFR Part 75 Appendix B Section 2.2.3 shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in 40 CFR Part 60 Appendix F Procedure 1, Section 5.2; and the grace period provisions in 40 CFR Part 75 Appendix B Section 2.2.4 shall apply. For the purposes of data validation under 40 CFR Part 60 Subpart Da, the cylinder gas audits described in 40 CFR Part 60 Appendix F Procedure 1, Section 5.1.2 shall be performed for NO_x span values less than or equal to 30 ppm; (40 CFR 60.49Da(w)(3))

(d) As an alternative to meeting the requirements of 40 CFR 60.49Da(w)(1), the Permittee may elect to implement the following alternative data accuracy assessment procedures. For O₂ CEMS and for NO_x CEMS, RATAs may be performed in accordance with 40 CFR Part 75 Appendix B Section 2.3 instead of following the procedures described in 40 CFR Part 60 Appendix F Procedure 1, Section 5.1.1. If this option is selected: The frequency of each RATA shall be as specified in 40 CFR Part 75 Appendix B Section 2.3.1; the applicable relative accuracy specifications shown in Figure 2 in 40 CFR Part 75 Appendix B shall be met; the data validation and out-of-control criteria in 40 CFR Part 75 Appendix B Section 2.3.2 shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in 40 CFR Part 60 Appendix F Procedure 1, Section 5.2; and the grace period provisions in 40 CFR Part 75 Appendix B Section 2.3.3 shall apply. For the purposes of data validation under 40 CFR Part 60 Subpart Da, the relative accuracy specification in 40 CFR Part 60 Appendix B Section 13.2 of Performance Specification 2 shall be met on a lb/MMBtu basis for NO_x when the average NO_x emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu; (40 CFR 60.49Da(w)(4))

(e) If the Permittee elects to implement the alternative data assessment procedures described in 40 CFR 60.49Da(w)(2) through (4), each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by 40 CFR 60.49Da(w)(2) through (4). (40 CFR 60.49Da(w)(5))



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

f. Compliance Determination Procedures and Methods (40 CFR Part 60.50Da)

- (1) In conducting the performance tests required in 40 CFR Part 60.8, the Permittee shall use as reference methods and procedures the methods in 40 CFR Part 60 Appendix A or the methods and procedures as specified in 40 CFR Part 60 Subpart Da, except as provided in 40 CFR Part 60.8(b). 40 CFR Part 60.8(f) does not apply to 40 CFR Part 60 Subpart Da for SO₂ and NO_x. Acceptable alternative methods are given in 40 CFR 60.50Da(e). (40 CFR 60.50Da(a))
- (2) The Permittee shall determine compliance with the SO₂ standards in 40 CFR Part 60.43Da as follows: (40 CFR 60.50Da(c))
 - (d) The appropriate procedures in 40 CFR Part 60 Appendix A Method 19 shall be used to determine the emission rate. (40 CFR 60.50Da(c)(4))
 - (e) The CEMS in 40 CFR Parts 60.49Da (d) shall be used to determine the concentrations of CO₂ or O₂. (40 CFR 60.50Da(c)(5))
- (3) The Permittee shall determine compliance with the NO_x standard in 40 CFR 60.44Da as follows: (40 CFR 60.50Da(d))
 - (a) The appropriate procedures in 40 CFR Part 60 Appendix A Method 19 be used to determine the emission rate of NO_x. (40 CFR 60.50Da(d)(1))
 - (b) The continuous monitoring system in 40 CFR 60.49Da(c) and (d) shall be used to determine the concentrations of NO_x and CO₂ or O₂. (40 CFR 60.50Da(d)(2))
- (4) The Permittee may use the following as alternatives to the reference methods and procedures specified in this section: (40 CFR 60.50Da(e))
 - (a) The F_c factor (CO₂) procedures in 40 CFR Part 60 Appendix A Method 19 may be used to compute the emission rate of PM under the stipulations of 40 60.46(d)(1). The CO₂ shall be determined in the same manner as the O₂ concentration. (40 CFR 60.50Da(e)(2))

g. Reporting Requirements (40 CFR 60.51Da)

- (1) For NO_x emissions, the performance test data from the initial and subsequent performance test and from the performance evaluation of the continuous monitors must be reported to the Administrator. (40 CFR 60.51Da(a))
- (2) For SO₂ and NO_x the following information is reported to the Administrator for each 24-hour period. (40 CFR 60.51Da(b))
 - (a) Calendar Date. (40 CFR 60.51Da(b)(1))
 - (b) The average SO₂ and NO_x emission rates (ng/J, lb/MMBtu, or lb/MWh) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken. (40 CFR 60.51Da(b)(2))
 - (c) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken. (40 CFR 60.51Da(b)(4))
 - (d) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, or malfunction. (40 CFR 60.51Da(b)(5))
 - (e) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted. (40 CFR 60.51Da(b)(6))
 - (f) Identification of times when hourly averages have been obtained based on manual sampling methods. (40 CFR 60.51Da(b)(7))
 - (g) Identification of the times when the pollutant concentration exceeded full span of the CEMS. (40 CFR 60.51Da(b)(8))
 - (h) Description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3. (40 CFR 60.51Da(b)(9))



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Section VI. Specific Operating Conditions (continued)

B2. Emission Unit S2.002A (continued)

7. Federal Requirements (continued)

40 CFR Part 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units (continued)

g. Reporting Requirements (40 CFR 60.51Da) (continued)

- (3) If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.48Da(h) is reported to the Administrator for that 30-day period: (40 CFR 60.51Da(c))
 - (a) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable. (40 CFR 60.51Da(c)(1))
 - (b) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable. (40 CFR 60.51Da(c)(2))
 - (c) The lower confidence limit for the mean outlet emission rate (E_o^*) and the upper confidence limit for the mean inlet emission rate (E_i^*) as applicable. (40 CFR Prt 60.51Da(c)(3))
 - (d) The applicable potential combustion concentration. (40 CFR 60.51Da(c)(4))
 - (e) The ratio of the upper confidence limit for the mean outlet emission rate (E_o^*) and the allowable emission rate (E_{std}) as applicable. (40 CFR 60.51Da(c)(5))
- (4) For any periods for which SO₂ or NO_x emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. (40 CFR 60.51Da(f))
- (5) The Permittee shall submit a signed statement indicating whether (40 CFR 60.51Da(h)):
 - (a) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified. (40 CFR 60.51Da(h)(1))
 - (b) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of 40 CFR Part 60 and is representative of plant performance. (40 CFR 60.51Da(h)(2))
 - (c) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable. (40 CFR 60.51Da(h)(3))
 - (d) Compliance with the standards has or has not been achieved during the reporting period. (40 CFR 60.51Da(h)(4))
- (6) The Permittee shall submit the written reports required under 40 CFR Part 60 Subpart Da and Subpart A to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. (40 CFR 60.51Da(j))
- (7) The Permittee may submit electronic quarterly reports for SO₂ and NO_x in lieu of submitting the written reports required under 40 CFR 60.51Da(b) and (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. (40 CFR 60.51Da(k))



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit S2.003

System 03A – Coal Handling System A (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003	Rotary (Radial) Stacker and associated conveyors, engineered by Watkins Engineering	4,525,880	487,460

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.003** shall be controlled by a control system consisting of an over-belt cartridge collector to control particulate matter emissions.
 - b. Descriptive Stack Parameters

Manufacture:	Camfill Farr.
Stack Height:	18 ft
Stack Diameter:	1.5 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	26.0 fps
Nominal Volumetric Flowrate:	1,800.0 acfm
Nominal Volumetric Flowrate:	1,529.0 dscfm
 - c. Part A of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

On and after the date of startup of **S2.003**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.003** the following pollutants in excess of the following specified limits:

 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.13** pound per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.13** pound per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.003** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. 40 CFR Part 60.254(a) Enforceable New Source Performance Standard Requirement - The opacity from **S2.003** will not equal or exceed **20%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.003** will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.003 may operate **8,760** hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the throughput (tons) of coal handled by **S2.003**.
- b. On a monthly basis, record the hours of operation for **S2.003**.
- c. As a means of showing compliance with the opacity limit prescribed in C.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.003**.
- d. On an annual basis, perform an inspection of the **S2.003** over-belt cartridge collector including a visual inspection of the collectors and all connecting points. Annual over-belt cartridge collector inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.003**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.003**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
- f. Monitor and record that the water/surfactant sprays on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

D. Emission Units S2.031 and S2.032

System 03B – Coal Handling System B (REVISED 05/2015) <i>Replaces S2.004</i>		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.031	Conveyor 3, engineered by Stone & Webster	4,525,860	487,420
S2.032	Conveyor 7A, engineered by Stone & Webster	4,525,880	487,420

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.031** and **S2.032**, each, shall be controlled by a control system consisting of an over-belt cartridge collector to control particulate matter emissions.
 - b. Descriptive Stack Parameters for S2.031 and S2.032, each

Manufacture:	Camfil Farr
Stack Diameter:	1.5 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	44.0 fps
Nominal Volumetric Flowrate:	3,000.0 acfm
Nominal Volumetric Flowrate:	2,548.0 dscfm
Stack Height for S2.031 :	32.0 ft
Stack Height for S2.032 :	40.0 ft
 - c. Part B of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

On and after the date of startup of **S2.031** and **S2.032**, each, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.031** and **S2.032**, each, the following pollutants in excess of the following specified limits:

 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.22** pounds per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.22** pounds per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.031** and **S2.032**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. 40 CFR Part 60.254(a) Enforceable New Source Performance Standard Requirement - The opacity from **S2.031** and **S2.032**, each, will not equal or exceed **20%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.031** and **S2.032**, each, will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.031 and **S2.032**, each, may operate **8,760** hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

D. Emission Units S2.031 and S2.032 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting*
Permittee will:

- a. On a monthly basis, record the throughput (tons) of coal handled by **S2.031** and **S2.032**, each.
- b. On a monthly basis, record the hours of operation for **S2.031** and **S2.032**, each.
- c. As a means of showing compliance with the opacity limit prescribed in D.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.031** and **S2.032**, each.
- d. On an annual basis, perform an inspection of the **S2.031** and **S2.032**, each, over-belt cartridge collector including a visual inspection of the collectors and all connecting points. Annual over-belt cartridge collector inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.031** and **S2.032**, each, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.031** and **S2.032**, each. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
- f. Monitor and record that the water/surfactant on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

E. Emission Unit S2.005

System 03C – Coal Handling System C (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.005	Reclaim Area Hopper and associated conveyors, engineered by Stone & Webster	4,525,880	487,420

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.005** shall be controlled by a control system consisting of an over-belt cartridge collector to control particulate matter that will discharge inside a building.
 - b. Descriptive Stack Parameters
Manufacture: Camfil Farr
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 44.0 fps
Nominal Volumetric Flowrate: 3,000.0 acfm
Nominal Volumetric Flowrate: 2,548.0 dscfm
 - c. Part C of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
On and after the date of startup of **S2.005**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.005** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.00** pound per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.00** pound per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.005** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. 40 CFR Part 60.254(a) Enforceable New Source Performance Standard Requirement - The opacity from **S2.005** will not equal or exceed **20%**.
 - f. NAC 445B.305 Part 70 Program – The opacity from **S2.005** will not exceed **0%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.005** will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.005 may operate **8,760** hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

E. Emission Unit S2.005 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting*
Permittee will:
 - a. On a monthly basis, record the throughput (tons) of coal handled by **S2.005**.
 - b. On a monthly basis, record the hours of operation for **S2.005**.
 - c. As a means of showing compliance with the opacity limit prescribed in E.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.005**.
 - d. On an annual basis, perform an inspection of the **S2.005** over-belt cartridge collector including a visual inspection of the collectors and all connecting points. Annual over-belt cartridge collector inspection records must show that observations were made and include records of any corrective actions taken.
 - e. On a quarterly basis for **S2.005**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.005**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
 - f. Monitor and record that the water/surfactant sprays on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

F. Emission Unit S2.006

System 03D – Coal Handling System D (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.006	Crusher Tower and associated conveyors, Engineered by Pennsylvania Crusher Corporation	4,525,810	487,310

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.006** shall be controlled by a control system consisting of a central cartridge filter to control particulate matter emissions.
 - b. Descriptive Stack Parameters

Manufacture:	Camfil Farr
Stack Height:	55.0 ft
Stack Diameter:	2.1 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	44.0 fps
Nominal Volumetric Flowrate:	9,000.0 acfm
Nominal Volumetric Flowrate:	7,644.0 dscfm
 - c. Part D of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

On and after the date of startup of **S2.006**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.006** the following pollutants in excess of the following specified limits:

 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.66** pounds per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.66** pounds per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.006** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. 40 CFR Part 60.524(a) Enforceable New Source Performance Standard Requirement - The opacity from **S2.006** will not equal or exceed **20%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.006** will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.006 may operate **8,760** hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

F. Emission Unit S2.006 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting*
Permittee will:
 - a. On a monthly basis, record the throughput (tons) of coal handled by **S2.006**.
 - b. On a monthly basis, record the hours of operation for **S2.006**.
 - c. Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM₁₀ on the exhaust stack of **S2.006** consisting of three valid runs 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
 - d. The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM₁₀ emissions for compliance demonstration purposes.
 - e. As a means of showing compliance with the opacity limit prescribed in F.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.006**.
 - f. On an annual basis, perform an inspection of the **S2.006** central cartridge filter including a visual inspection of the filter and all connecting points. Annual central cartridge filter inspection records must show that observations were made and include records of any corrective actions taken.
 - g. On a quarterly basis for **S2.006**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.006**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
 - h. Monitor and record that the water/surfactant sprays on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

G. Emission Unit S2.033 and S2.034

System 03E – Coal Handling System E (REVISED 05/2015) <i>Replaces S2.007</i>		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.033	Conveyor 5A, engineered by Stone & Webster	4,525,720	487,100
S2.034	Conveyor 5B, engineered by Stone & Webster	4,525,720	487,100

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.033** and **S2.034**, each, shall be controlled by a control system consisting of an over-belt cartridge collector to control particulate matter emissions.
 - b. Descriptive Stack Parameters S2.033 and S2.034, each
 Manufacture: Camfil Farr
 Stack Height: 37.0 ft
 Stack Diameter: 1.5 ft
 Nominal Exhaust Temperature: Ambient
 Nominal Stack Exit Velocity: 44.0 fps
 Nominal Volumetric Flowrate: 3,000.0 acfm
 Nominal Volumetric Flowrate: 2,548.0 dscfm
 - c. Part E of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 On and after the date of startup of **S2.033** and **S2.034**, each, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.033** and **S2.034**, each, the following pollutants in excess of the following specified limits:
 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.22** pounds per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.22** pounds per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.033** and **S2.034**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. 40 CFR Part 60.254(a) Enforceable New Source Performance Standard Requirement - The opacity from **S2.033** and **S2.034**, each, will not equal or exceed **20%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.033** and **S2.034**, each, will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.033 and **S2.034**, each, may operate **8,760** hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

G. Emission Unit S2.033 and S2.034 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting*
Permittee will:

- a. On a monthly basis, record the throughput (tons) of coal handled by **S2.033** and **S2.034**, each.
- b. On a monthly basis, record the hours of operation for **S2.033** and **S2.034**, each.
- c. As a means of showing compliance with the opacity limit prescribed in G.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.033** and **S2.034**, each.
- d. On an annual basis, perform an inspection of **S2.033** and **S2.034**, each, over-belt cartridge collector including a visual inspection of the collectors and all connecting points. Annual over-belt cartridge collector inspection's records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.033** and **S2.034**, each, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.033** and **S2.034**, each. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
- f. Monitor and record that the water/surfactant sprays on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

H. Emission Unit S2.008

System 03F – Coal Handling System F		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.008	Tripper Area Hopper and associated conveyors, engineered by Stone & Webster	4,525,480	487,100

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.008** shall be controlled by a wet dust extraction system (Tripper Engart) to control particulate matter emissions that will discharge inside the Tripper Room.
 - b. Part F of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 On and after the date of startup of **S2.008**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.008** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pounds per hour.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pounds per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.008** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - e. NAC 445B.305 Part 70 Program – The opacity from **S2.008** will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable throughput rate for **S2.008** will not exceed **800.0** tons of coal per any one-hour period.
 - b. Hours
S2.008 may operate 8,760 hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

H. Emission Unit S2.008 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the throughput (tons) of coal handled by **S2.008**.
- b. On a monthly basis, record the hours of operation for **S2.008**.
- c. On an annual basis, conduct and record a visible emissions test on **S2.008**, while the emissions unit is operating. If lighting is insufficient to perform a visible emissions test indoors, a visible emissions test may be conducted outdoors on any vents or openings which vent the building. If any emissions are noted, *Permittee* shall conduct and record a visible emissions test on any vents or openings which vent the building in accordance with Reference Method 9 in Appendix A of 40 CFR Part 60. Each Method 9 visible emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions. The results of all visible emissions tests and any corrective actions taken will be recorded in a contemporaneous log.
- d. On an annual basis, perform an inspection of the **S2.008** Tripper Engart including a visual inspection of all connecting points. Annual Tripper Engart inspection records must show that observations were made and include records of any corrective actions taken.
- e. Monitor and record that the water/surfactant on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

I. Emission Units S2.009 through S2.012

System 03G – Coal Handling System G		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.009	#1 Unit Coal Silos A & B (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)	4,525,480	487,100
S2.010	#1 Unit Coal Silos C & D (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)	4,525,460	487,120
S2.011	#2 Unit Coal Silos A & B (2 silos) and associated conveyors, each 40'5" (H) x 27' (W)	4,525,520	487,290
S2.012	#2 Unit Coal Silos C & D (2 silos) and associated conveyors, each 40'5" (H) x 27' (W)	4,525,520	487,300

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Control Equipment

- a. Emissions from **S2.009, S2.010, S2.011, and S2.012, each** shall be controlled by a wet dust extraction system (Coal Silo Engart) to control particulate matter emissions that will discharge inside the Tripper Room.
- b. Part G of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003, S2.005, S2.006, S2.008-S2.012, and S2.031-S2.034**. Water and/or surfactant application will be added as needed at the rail trestle unloading area to minimize fugitive particulate emissions from the open coal storage piles.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

On and after the date of startup of **S2.009, S2.010, S2.011, and S2.012, each**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.009, S2.010, S2.011, and S2.012, each** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pounds per hour.
- c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pounds per hour.
- d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.009, S2.010, S2.011, and S2.012, each**, will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. NAC 445B.305 Part 70 Program - The opacity from **S2.009, S2.010, S2.011, and S2.012, each**, will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable throughput rate for **S2.009, S2.010, S2.011, and S2.012, each**, will not exceed **800.0** tons of coal per any one-hour period.
- b. Hours
S2.009, S2.010, S2.011, and S2.012, each, may operate 8,760 hours per calendar year.



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Section VI. Specific Operating Conditions (continued)

I. Emission Units S2.009 through S2.012 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting
Permittee will:

- a. On a monthly basis, record the throughput (tons) of coal handled by **S2.009, S2.010, S2.011, and S2.012, each**.
- b. On a monthly basis, record the hours of operation, for **S2.009, S2.010, S2.011, and S2.012, each**.
- c. On an annual basis, perform an inspection of the **S2.009, S2.010, S2.011, and S2.012, each**, Coal Silo Engart, including a visual inspection of all connecting points. Annual Coal Silo Engart inspection records must show that observations were made and include records of any corrective actions taken.
- d. On an annual basis, conduct and record a visible emissions test on **S2.009, S2.010, S2.011, and S2.012, each**, Coal Silo Engart, while the emissions unit is operating. If lighting is insufficient to perform a visible emissions test indoors, a visible emissions test may be conducted outdoors on any vents or openings which vent the building. If any emissions are noted, *Permittee* shall conduct and record a visible emissions test on any vents or openings which vent the building in accordance with Reference Method 9 in Appendix A of 40 CFR Part 60. Each Method 9 visible emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions. The results of all visible emissions tests and any corrective actions taken will be recorded in a contemporaneous log.
- e. Monitor and record that the water/surfactant sprays on the rail trestle unloading area are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

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Section VI. Specific Operating Conditions (continued)

K. Emission Units S2.013 and PF1.001

Table with 4 columns: Unit ID, Unit Description, Location UTM (Zone 11, NAD 83) m North, Location UTM (Zone 11, NAD 83) m East. Rows include System 04A (Soda Ash Storage) and units S2.013 and PF1.001.

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.013 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.

b. Descriptive Stack Parameters

- Manufacturer: Camfil Farr
Stack Height: 70.0 ft
Stack Diameter: 2.0 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 5.1 fps
Nominal Volumetric Flowrate: 960.0 acfm
Nominal Volumetric Flowrate: 815.0 dscfm

c. Emissions from PF1.001 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.013, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.013 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.07 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.07 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.013 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.001, Permittee will not discharge or cause the discharge into the atmosphere from PF1.001, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.001 will not equal or exceed 20% in accordance with NAC 445B.22017.
(5) NAC 445B.305 Part 70 Program - The opacity from PF1.001 will not exceed 0%



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Section VI. Specific Operating Conditions (continued)

K. Emission Units S2.013 and PF1.001 (continued)

3. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

Operating Parameters

- a. Maximum allowable loading rate of soda ash to **S2.013** will not exceed **50.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable loading rate of soda ash to **S2.013** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
- c. Hours
S2.013 and PF1.001, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of soda ash loaded into **S2.013** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the hours of operation of **S2.013**.
- c. On an annual basis, perform an inspection of the **S2.013** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- d. During loading for **S2.013**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.013**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **PF1.001** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.001**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

L. Emission Units S2.014 and PF1.002

System 04B – Circulating Water Treatment System A (Magnesium Oxide Storage Bin, 20' (H) x 12' (W)) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.014	Unit #1 Magnesium Oxide Storage Bin Loading	4,525,480	487,430
PF1.002	Unit #1 Magnesium Oxide Storage Bin Unloading	4,525,480	487,430

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.014 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.

b. Descriptive Stack Parameters

Manufacturer: Camfil Farr
Stack Height: 70.0 ft
Stack Diameter: 2.0 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 5.1 fps
Nominal Volumetric Flowrate: 960.0 acfm
Nominal Volumetric Flowrate: 815.0 dscfm

c. Emissions from PF1.002 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.014, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.014 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.07 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.07 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.014 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.002, Permittee will not discharge or cause the discharge into the atmosphere from PF1.002, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.002 will not equal or exceed 20% in accordance with NAC 445B.22017.
- (5) NAC 445B.305 Part 70 Program - The opacity from PF1.002 will not exceed 0%.



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Section VI. Specific Operating Conditions (continued)

L. Emission Units S2.014 and PF1.002 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of magnesium oxide to **S2.014** will not exceed **50.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable loading rate of magnesium oxide to **S2.014** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
- c. Hours
S2.014 and PF1.002, each, may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of magnesium oxide loaded into **S2.014** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the hours of operation of **S2.014**.
- c. On an annual basis, perform an inspection of the **S2.014** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- d. During loading for **S2.014**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.014**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **PF1.002** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.002**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

M. Emission Units S2.015 and PF1.003

System 05A – Circulating Water Treatment System B (Soda Ash Storage Bin, 26' (H) x 12' (W)) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.015	Unit #2 Soda Ash Storage Bin Loading	4,525,470	487,430
PF1.003	Unit #2 Soda Ash Storage Bin Unloading	4,525,470	487,430

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment

- a. Emissions from **S2.015** shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.
- b. Descriptive Stack Parameters
 Manufacturer: Camfil Farr
 Stack Height: 70.0 ft
 Stack Diameter: 2.0 ft
 Nominal Exhaust Temperature: Ambient
 Nominal Stack Exit Velocity: 5.1 fps
 Nominal Volumetric Flowrate: 960.0 acfm
 Nominal Volumetric Flowrate: 815.0 dscfm
- c. Emissions from **PF1.003** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

- a. On and after the date of startup of **S2.015**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.015** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.07** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.07** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.015** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.003**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.003**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.003** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.003** will not exceed **0%**.



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Section VI. Specific Operating Conditions (continued)

M. Emission Units S2.015 and PF1.003 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of soda ash to **S2.015** will not exceed **50.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable loading rate of soda ash to **S2.015** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
- c. Hours
S2.015 and PF1.003, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of soda ash loaded into **S2.015** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the hours of operation of **S2.015**.
- c. On an annual basis, perform an inspection of the **S2.015** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- d. During loading for **S2.015**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.015**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **PF1.003** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.003**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

N. Emission Units S2.016 and PF1.004

System 05B – Circulating Water Treatment System B (Magnesium Oxide Storage Bin, 26' (H) x 12' (W)) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.016	Unit #2 Magnesium Oxide Storage Bin Loading	4,525,480	487,430
PF1.004	Unit #2 Magnesium Oxide Storage Bin Unloading	4,525,480	487,430

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.016 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.

b. Descriptive Stack Parameters

Manufacturer:	Camfil Farr
Stack Height:	70.0 ft
Stack Diameter:	2.0 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	5.1 fps
Nominal Volumetric Flowrate:	960.0 acfm
Nominal Volumetric Flowrate:	815.0 dscfm

c. Emissions from PF1.004 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.016, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.016 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.07 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.07 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.016 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.004, Permittee will not discharge or cause the discharge into the atmosphere from PF1.004, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.004 will not equal or exceed 20% in accordance with NAC 445B.22017.
- (5) NAC 445B.305 Part 70 Program - The opacity from PF1.004 will not exceed 0%.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

N. Emission Units S2.016 and PF1.004 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of magnesium oxide to **S2.016** will not exceed **50.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable loading rate of magnesium oxide to **S2.016** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
- c. Hours
S2.016 and PF1.004, each, may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of magnesium oxide loaded into **S2.016** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the hours of operation of **S2.016**.
- c. On an annual basis, perform an inspection of the **S2.016** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- d. During loading for **S2.016**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.016**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **PF1.004** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.004**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

O. Emission Units S2.017 and PF1.005

System 06 – Fly Ash Handling System (Unit #1 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.017	Unit #1 Fly Ash Silo Loading	4,525,660	487,140
PF1.005	Unit #1 Fly Ash Silo Unloading	4,525,660	487,140

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment

- a. Emissions from **S2.017** shall be controlled by a control system consisting of a powered cartridge bin vent to control particulate matter emissions.
- b. Descriptive Stack Parameters
 - Manufacturer: Camfil Farr
 - Stack Height: 97 ft
 - Stack Diameter: 1.92 ft
 - Nominal Exhaust Temperature: Ambient
 - Nominal Stack Exit Velocity: 31.0 fps
 - Nominal Volumetric Flowrate: 2,600.0 acfm
 - Nominal Volumetric Flowrate: 2,208.0 dscfm
- c. Emissions from **PF1.005** will be controlled inside an enclosed building by utilizing water sprays inside a rotary un-loader during unloading into a haul truck.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

- a. On and after the date of startup of **S2.017**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.017** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **26.28** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.19** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.19** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.017** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.005**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.005**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **62.22** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.37** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **2.49** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.005** will not equal or exceed **20%** in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

O. Emission Units S2.017 and PF1.005 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of fly ash to **S2.017** will not exceed **16.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable unloading rate of fly ash from **PF1.005** will not exceed **280.0** tons per hour, averaged on a monthly basis.
- c. Hours
S2.017 may operate **8,760** hours per calendar year.
PF1.005 may operate no more than **16** hours per day.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of fly ash loaded into **S2.017** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the amount of fly ash unloaded from **PF1.005** each day unloading occurs and the duration of the unloading.
- c. On a monthly basis, record the hours of operation of **S2.017 and PF1.005**.
- d. On an annual basis, perform an inspection of the **S2.017** powered cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual powered cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.017**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.017**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- f. On a quarterly basis for **PF1.005** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.005**. If these visible surveys document any opacity greater than 20%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

P. Emission Units S2.017 and PF1.005 – Alternative Operating Scenario Powered Cartridge Bin Vent Unloading

System 06A – Fly Ash Handling System (Unit #1 Fly Ash Silo, 64' (H) x 35' (W)) – (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.017	Unit #1 Fly Ash Silo Loading	4,525,660	487,140
PF1.005	Unit #1 Fly Ash Silo Unloading	4,525,660	487,140

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.017** shall be controlled by a control system consisting of a powered cartridge bin vent to control particulate matter emissions.
 - b. Descriptive Stack Parameters

Manufacturer:	Camfil Farr
Stack Height:	97 ft
Stack Diameter:	1.92 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	31.0 fps
Nominal Volumetric Flowrate:	2,600.0 acfm
Nominal Volumetric Flowrate:	2,208.0 dscfm
 - c. Emissions from **PF1.005** will be controlled by returning emissions into a powered cartridge bin vent during unloading into a haul truck.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 - a. On and after the date of startup of **S2.017**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.017** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **26.28** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.19** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.19** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.017** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - b. On and after the date of startup of **PF1.005**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.005**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **62.22** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.19** pounds per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.19** pounds per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.005** will not equal or exceed **20%** in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

P. Emission Units S2.017 and PF1.005 – Alternative Operating Scenario Powered Cartridge Bin Vent Unloading (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of fly ash to **S2.017** will not exceed **16.0** tons per hour, averaged on a monthly basis.
- b. Maximum allowable unloading rate of fly ash from **PF1.005** will not exceed **280.0** tons per hour, averaged on a monthly basis.
- c. Hours
S2.017 and PF1.005, each, may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of fly ash loaded into **S2.017** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the amount of fly ash unloaded from **PF1.005** each day unloading occurs and the duration of the unloading.
- c. On a monthly basis, record the hours of operation of **S2.017 and PF1.005**.
- d. On an annual basis, perform an inspection of the **S2.017** powered cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual powered cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.017**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.017**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- f. On a quarterly basis for **PF1.005** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.005**. If these visible surveys document any opacity greater than 20%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

Q. Emission Units S2.018 and PF1.006

System 07 – Fly Ash Handling System (Unit #2 Fly Ash Silo, 64' (H) x 35' (W)) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.018	Unit #2 Fly Ash Silo Loading	4,525,740	487,210
PF1.006	Unit #2 Fly Ash Silo Unloading	4,525,740	487,210

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.018 shall be controlled by a control system consisting of a powered cartridge bin vent to control particulate matter emissions.

b. Descriptive Stack Parameters

Manufacturer:	Camfil Farr
Stack Height:	97 ft
Stack Diameter:	1.92 ft
Nominal Exhaust Temperature:	Ambient
Nominal Stack Exit Velocity:	31.0 fps
Nominal Volumetric Flowrate:	2,600.0 acfm
Nominal Volumetric Flowrate:	2,208.0 dscfm

c. Emissions from PF1.006 will be controlled inside an enclosed building by utilizing water sprays inside a rotary un-loader during unloading into a haul truck.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.018, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.018 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 27.79 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.19 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.19 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.018 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.006, Permittee will not discharge or cause the discharge into the atmosphere from PF1.006, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 62.22 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.37 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.49 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.006 will not equal or exceed 20% in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

Q. Emission Units S2.018 and PF1.006 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable loading rate of fly ash to **S2.018** will not exceed **17.4** tons per hour, averaged on a monthly basis.
- b. Maximum allowable unloading rate of fly ash from **PF1.006** will not exceed **280.0** tons per hour, averaged on a monthly basis.
- c. Hours
S2.018 may operate **8,760** hours per calendar year.
PF1.006 may operate no more than **16** hours per day.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

Permittee will:

- a. On a monthly basis, record the amount of fly ash loaded into **S2.018** each day loading occurs and the duration of the loading.
- b. On a monthly basis, record the amount of fly ash unloaded from **PF1.006** each day unloading occurs and the duration of the unloading.
- c. On a monthly basis, record the hours of operation of **S2.018** and **PF1.006**.
- d. On an annual basis, perform an inspection of the **S2.018** powered cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual powered cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- e. On a quarterly basis for **S2.018**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.018**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- f. On a quarterly basis for **PF1.006** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.006**. If these visible surveys document any opacity greater than 20%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.018 and PF1.006 – Alternative Operating Scenario Powered Cartridge Bin Vent Unloading

Table with 4 columns: System ID, Unit Name, Location UTM (m North), Location UTM (m East). Rows include System 07A, S2.018, and PF1.006.

- 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
a. Emissions from S2.018 shall be controlled by a control system consisting of a powered cartridge bin vent to control particulate matter emissions.
b. Descriptive Stack Parameters: Manufacturer: Camfil Farr, Stack Height: 97 ft, Stack Diameter: 1.92 ft, Nominal Exhaust Temperature: Ambient, Nominal Stack Exit Velocity: 31.0 fps, Nominal Volumetric Flowrate: 2,600.0 acfm, Nominal Volumetric Flowrate: 2,208.0 dscfm
c. Emissions from PF1.006 will be controlled by returning emissions into a powered cartridge bin vent during unloading into a haul truck.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
a. On and after the date of startup of S2.018, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.018 the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 27.79 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.19 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.19 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.017 will not equal or exceed 20% in accordance with NAC 445B.22017.
b. On and after the date of startup of PF1.006, Permittee will not discharge or cause the discharge into the atmosphere from PF1.006, the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 62.22 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.19 pounds per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.19 pounds per hour.



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Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.018 and PF1.006 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.006**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.006**, the following pollutants in excess of the following specified limits:
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.006** will not equal or exceed **20%** in accordance with NAC 445B.22017.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of fly ash to **S2.018** will not exceed **17.4** tons per hour, averaged on a monthly basis.
 - b. Maximum allowable unloading rate of fly ash from **PF1.006** will not exceed **280.0** tons per hour, averaged on a monthly basis.
 - c. Hours
S2.018 and PF1.006, each, may operate **8,760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
Permittee will:
 - a. On a monthly basis, record the amount of fly ash loaded into **S2.018** each day loading occurs and the duration of the loading.
 - b. On a monthly basis, record the amount of fly ash unloaded from **PF1.006** each day unloading occurs and the duration of the unloading.
 - c. On a monthly basis, record the hours of operation of **S2.018 and PF1.006**.
 - d. On an annual basis, perform an inspection of the **S2.018** powered cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual powered cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
 - e. On a quarterly basis for **S2.018**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.018**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
 - f. On a quarterly basis for **PF1.006** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.006**. If these visible surveys document any opacity greater than 20%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.019 and PF1.007

Table with 3 columns: Unit ID, Unit Description, Location UTM (m North, m East). Rows include System 08A, S2.019, and PF1.007.

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

- a. Emissions from S2.019 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions.
b. Descriptive Stack Parameters: Manufacturer: Camfil Farr, Stack Height: 86.0 ft, Stack Diameter: 1.14 ft, Nominal Exhaust Temperature: Ambient, Nominal Stack Exit Velocity: 31.0 fps, Nominal Volumetric Flowrate: 2,800.0 acfm, Nominal Volumetric Flowrate: 2,378.0 dscfm.
c. Emissions from PF1.007 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

- a. On and after the date of startup of S2.019, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.019 the following pollutants in excess of the following specified limits: (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour. (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.21 pound per hour. (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.21 pound per hour. (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.019 will not equal or exceed 20% in accordance with NAC 445B.22017.
b. On and after the date of startup of PF1.007, Permittee will not discharge or cause the discharge into the atmosphere from PF1.007, the following pollutants in excess of the following specified limits: (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour. (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour. (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour. (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.007 will not equal or exceed 20% in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.019 and PF1.007 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.007**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.007**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.007** will not exceed **0%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of lime to **S2.019** will not exceed **35.0** tons per hour, averaged on a monthly basis.
 - b. Maximum allowable loading rate of line to **S2.019** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
 - c. Hours
S2.019 and PF1.007, each, may operate **8,760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
Permittee will:
 - a. On a monthly basis, record the amount of lime loaded into **S2.019** each day loading occurs and the duration of the loading.
 - b. On a monthly basis, record the hours of operation of **S2.019**.
 - c. On an annual basis, perform an inspection of the **S2.019** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
 - d. On a quarterly basis for **S2.019**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.019**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
 - e. On a quarterly basis for **PF1.007** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.007**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.020 and PF1.008

System 08B – Unit #2 Lime Scrubber System A (Scrubber - Loop 2 Lime Day Storage Bin, 35 ton capacity) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.020	Loop 2 Lime Day Storage Bin Loading	4,525,560	487,240
PF1.008	Loop 2 Lime Day Storage Bin Unloading	4,525,560	487,240

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.020 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions.

b. Descriptive Stack Parameters:

Manufacturer: Camfil Farr
Stack Height: 86.0 ft
Stack Diameter: 1.17 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 31.0 fps
Nominal Volumetric Flowrate: 2,800.0 acfm
Nominal Volumetric Flowrate: 2,378.0 dscfm

c. Emissions from PF1.008 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.020, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.020 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.21 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.21 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.020 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.008, Permittee will not discharge or cause the discharge into the atmosphere from PF1.008, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.008 will not equal or exceed 20% in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.020 and PF1.008 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.008**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.008**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.008** will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of lime to **S2.020** will not exceed **35.0** tons per hour, averaged on a monthly basis.
 - b. Maximum allowable loading rate of lime to **S2.020** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
 - c. Hours
S2.020 and PF1.008, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
Permittee will:
 - a. On a monthly basis, record the amount of lime loaded into **S2.020** each day loading occurs and the duration of the loading.
 - b. On a monthly basis, record the hours of operation of **S2.020**.
 - c. On an annual basis, perform an inspection of the **S2.020** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
 - d. On a quarterly basis for **S2.020**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.020**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
 - e. On a quarterly basis for **PF1.008** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.008**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

U. Emission Units S2.021 and PF1.009

Table with 3 columns: System 09A - Unit #2 Lime Scrubber System B (Scrubber - Loop 1 Recycle Ash Day Storage Bin, 50 ton capacity) (REVISED 05/2015), Location UTM (Zone 11, NAD 83) m North, m East. Rows include S2.021 and PF1.009.

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment

a. Emissions from S2.021 shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions.

b. Descriptive Stack Parameters:

Manufacturer: Camfil Farr
Stack Height: 90.0 ft
Stack Diameter: 1.5 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 48.0 fps
Nominal Volumetric Flowrate: 5,100.0 acfm
Nominal Volumetric Flowrate: 4,332.0 dscfm

c. Emissions from PF1.009 will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits

a. On and after the date of startup of S2.021, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.021 the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.37 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.37 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.021 will not equal or exceed 20% in accordance with NAC 445B.22017.

b. On and after the date of startup of PF1.009, Permittee will not discharge or cause the discharge into the atmosphere from PF1.009, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 41.32 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.



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Section VI. Specific Operating Conditions (continued)

U. Emission Units S2.021 and PF1.009 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits (continued)

b. On and after the date of startup of **PF1.009**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.009**, the following pollutants in excess of the following specified limits:

- (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.009** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.009** will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. Maximum allowable loading rate of recycle ash to **S2.021** will not exceed **35.0** tons per hour, averaged on a monthly basis.

b. Hours

S2.021 and **PF1.009**, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, *Permittee* will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the cartridge bin vent controlling emissions from **S2.021**.
- (2) Conduct and record a reading of the cartridge bin vent pressure drop for **S2.021** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the cartridge bin vent internal pressure drop shall be less than **10.0** inches of water for the cartridge bin vent controlling emissions from **S2.021**. Excursions shall be defined as anytime the cartridge bin vent internal pressure exceeds this indicator range.
- (4) Conduct and record a visible emissions survey from the exhaust vent of **S2.021** at least once per week. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
- (5) Conduct and record a cartridge bin vent inspection on an annual basis.
- (6) The required monitoring established in U.4.a.(1) through (5) of this section, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.021** is operating:
 - (i) Results of the reading of the internal pressure drop of the cartridge bin vent controlling emissions from **S2.021**.
 - (ii) Results and verification of the annual cartridge bin vent inspection and documentation of the inspection date of the cartridge bin vent controlling emissions from **S2.021**, and any corrective actions taken.
- (7) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.



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Section VI. Specific Operating Conditions (continued)

U. Emission Units S2.021 and PF1.009 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program (continued)*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. *Permittee* will:

- (1) On a monthly basis, record the amount of recycled ash loaded into **S2.021** each day loading occurs and the duration of the loading.
- (2) On a monthly basis, record the hours of operation for **S2.021**.
- (3) As a means of showing compliance with the opacity limit prescribed in U.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.021**.
- (4) On an annual basis, perform an inspection of the **S2.021** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **S2.021**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.021**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (6) On a quarterly basis for **PF1.009** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.009**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

V. Emission Units S2.022 and PF1.010

System 09B – Unit #2 Lime Scrubber System B (Scrubber - Loop 2 Recycle Ash Day Storage Bin, 50 ton capacity) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.022	Loop 2 Recycle Ash Day Storage Bin Loading	4,525,560	487,240
PF1.010	Loop 2 Recycle Ash Day Storage Bin Unloading	4,252,560	487,240

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
 - a. Emissions from **S2.022** shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions.
 - b. Descriptive Stack Parameters:

Manufacturer: Camfil Farr
 Stack Height: 90.0 ft
 Stack Diameter: 1.5 ft
 Nominal Exhaust Temperature: Ambient
 Nominal Stack Exit Velocity: 48.0 fps
 Nominal Volumetric Flowrate: 5,100.0 acfm
 Nominal Volumetric Flowrate: 4,332.0 dscfm
 - c. Emissions from **PF1.010** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
 - a. On and after the date of startup of **S2.022**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.022** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.37** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.37** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.022** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - b. On and after the date of startup of **PF1.010**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.010**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.



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Section VI. Specific Operating Conditions (continued)

V. Emission Units S2.022 and PF1.010 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.010**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.010**, the following pollutants in excess of the following specified limits:
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.010** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.010** will not exceed **0%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of recycle ash to **S2.022** will not exceed **35.0** tons per hour, averaged on a monthly basis.
 - b. Hours
S2.022 and PF1.010, each, may operate **8,760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 - a. 40 CFR Part 64 Compliance Assurance Monitoring Program
On and after the date of initial startup, **Permittee** will:
 - (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the cartridge bin vent controlling emissions from **S2.022**.
 - (2) Conduct and record a reading of the cartridge bin vent pressure drop for **S2.022** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
 - (3) The indicator range for the cartridge bin vent internal pressure drop shall be less than **10.0** inches of water for the cartridge bin vent controlling emissions from **S2.022**. Excursions shall be defined as anytime the cartridge bin vent internal pressure exceeds this indicator range.
 - (4) Conduct and record a visible emissions survey from the exhaust vent of **S2.022** at least once per week. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A.
 - (5) Conduct and record a cartridge bin vent inspection on an annual basis.
 - (6) The required monitoring established in a.(1) through (5) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.022** is operating:
 - (i) Results of the reading of the internal pressure drop of the cartridge bin vent controlling emissions from **S2.022**.
 - (ii) Results and verification of the annual cartridge bin vent inspection and documentation of the inspection date of the cartridge bin vent controlling emissions from **S2.021**, and any corrective actions taken.
 - (7) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.



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Section VI. Specific Operating Conditions (continued)

V. Emission Units S2.022 and PF1.010 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. **Permittee** will:

- (1) On a monthly basis, record the amount of recycled ash loaded into **S2.022** each day loading occurs and the duration of the loading.
- (2) On a monthly basis, record the hours of operation for **S2.022**.
- (3) As a means of showing compliance with the opacity limit prescribed in T.2 of this section, 90 days prior to the expiration of this operating permit, but no earlier than 365 days of the date of expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.022**.
- (4) On an annual basis, perform an inspection of the **S2.022** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **S2.022**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.022**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (6) On a quarterly basis for **PF1.010** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.010**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

W. Emission Units S2.023 and PF1.011

System 10A – Unit #2 Lime Scrubber System C (West Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.023	West Lime Storage Silo Loading	4,525,710	487,290
PF1.011	West Lime Storage Silo Unloading	4,525,710	487,290

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
 - a. Emissions from **S2.023** shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.
 - b. Descriptive Stack Parameters:

Manufacturer: Camfil Farr
Stack Height: 91.0 ft
Stack Diameter: 3.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 1.8 fps
Nominal Volumetric Flowrate: 960.0 acfm
Nominal Volumetric Flowrate: 815.0 dscfm
 - c. Emissions from **PF1.011** will be controlled by unloading through an enclosed piping system to a Lime Day Storage Bin.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
 - a. On and after the date of startup of **S2.023**, **Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.023** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.07** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.07** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.023** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - b. On and after the date of startup of **PF1.011**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.011**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.011** will not equal or exceed **20%** in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

W. Emission Units S2.023 and PF1.011 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.011**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.011**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.011** will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of lime to **S2.023** will not exceed **50.0** tons per hour, averaged on a monthly basis.
 - b. Maximum allowable loading rate of lime to **S2.023** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
 - c. Hours
S2.023 and PF1.011, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Monitoring, Record keeping and Compliance
 - a. **Permittee** will:
 - (1) On a monthly basis, record the amount of lime loaded into **S2.023** each day loading occurs and the duration of the loading.
 - (2) On a monthly basis, record the hours of operation of **S2.023**.
 - (3) On an annual basis, perform an inspection of the **S2.023** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
 - (4) During loading for **S2.023**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.023**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
 - (5) On a quarterly basis for **PF1.011** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.011**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

X. Emission Units S2.024 and PF1.012

System 10B – Unit #2 Lime Scrubber System C (West Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity) (REVISED 05/2015)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.024	East Lime Storage Silo Loading	4,525,710	487,290
PF1.012	East Lime Storage Silo Unloading	4,525,710	487,290

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 - a. Emissions from **S2.024** shall be controlled by a control system consisting of a cartridge bin vent to control particulate matter emissions while loading the storage bin.
 - b. Descriptive Stack Parameters:

Manufacturer: Camfil Farr
Stack Height: 91.0 ft
Stack Diameter: 3.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 1.8 fps
Nominal Volumetric Flowrate: 960.0 acfm
Nominal Volumetric Flowrate: 815.0 dscfm
 - c. Emissions from **PF1.012** will be controlled by unloading through an enclosed piping system to a Lime Day Storage Bin.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 - a. On and after the date of startup of **S2.024**, **Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.024** the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.07** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.07** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.024** will not equal or exceed **20%** in accordance with NAC 445B.22017.
 - b. On and after the date of startup of **PF1.012**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.012**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
 - (4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.012** will not equal or exceed **20%** in accordance with NAC 445B.22017



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Section VI. Specific Operating Conditions (continued)

X. Emission Units S2.024 and PF1.012 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.012**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.012**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.012** will not exceed **0%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of lime to **S2.024** will not exceed **50.0** tons per hour, averaged on a monthly basis.
 - b. Maximum allowable loading rate of lime to **S2.024** will not exceed **273,500.0** tons per year, based on a 12-month rolling average.
 - c. Hours
S2.024 and PF1.012, each, may operate **8,760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 - a. *Permittee* will:
 - (1) On a monthly basis, record the amount of lime loaded into **S2.024** each day loading occurs and the duration of the loading.
 - (2) On a monthly basis, record the hours of operation of **S2.024**.
 - (3) On an annual basis, perform an inspection of the **S2.024** cartridge bin vent, including a visual inspection of the cartridges and all connecting points. Annual cartridge bin vent inspection records must show that observations were made and include records of any corrective actions taken.
 - (4) During loading for **S2.024**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.024**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
 - (5) On a quarterly basis for **PF1.012** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.012**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

Y. Emission Units PF1.015

System 11 – SPX Cooling Tower System for Unit #1 Boiler		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.015	SPX 8-Cell Cooling Tower; Wet-Draft, Cross-Flow	4,525,540	487,440

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
Control system consisting of integral louvered drift eliminators installed on **PF1.015** to reduce the cooling tower drift losses to the manufacturer’s specification of 0.001% or less.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
On and after the date of startup of **PF1.015**, **Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.015** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.305 Part 70 Program - The discharge of **PM** (total particulate matter) to the atmosphere from **PF1.015** will not exceed **5.12** pounds per hour.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.015** will not exceed **5.12** pounds per hour.
 - c. NAC 445B.22033 Federally Enforceable SIP Requirement – The discharge of **PM₁₀** (particulate less than 10 microns in diameter) from **PF1.015** to the atmosphere will not exceed **127.2** pounds per hour.
 - d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.015** will not equal or exceed **20%** in accordance with NAC 445B.22017.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. The use of chromium-based water treatment chemicals in **PF1.015** is prohibited.
 - b. Hours
PF1.015 may operate **8,760** hours per calendar year.
 - c. The maximum process water circulation rate per the manufacturer’s specification for the 8 cooling tower cells of **PF1.015**, will not exceed the design maximum of **98,210.0** gallons per minute.
 - d. The maximum Total Dissolved Solids (TDS) content of the process water circulated through **PF1.015** will not exceed **10,430.0** mg per liter (10,430.0 ppm and 16,300.0 microS per cm).

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 - a. 40 CFR Part 64 Compliance Assurance Monitoring Program
The **Permittee**, upon the issuance date of this operating permit will:
 - (1) Monitor and record the conductivity in micro Siemens per centimeter (microS/cm) on a daily basis. See section XI.B. for the schedule of compliance.
 - (2) Sample the cooling tower water from **PF1.015** on a calendar quarterly basis for the TDS concentration in parts per million (ppm). The TDS will be determined using EPA Method 160.1 DNS.
 - (3) Monitor and record that the cooling tower drift eliminators for **PF1.015** are in-place and functional, on an annual basis. Inspection records must show that observations were made and include records of any corrective actions taken. Excursions shall be defined as damaged or broken baffles.
 - (4) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.



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Section VI. Specific Operating Conditions (continued)

Y. Emission Units PF1.015 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program (continued)*
Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring Requirements

The *Permittee*, on and after the date of start-up of **PF1.015** will monitor the total daily hours of operation of **PF1.015** for each day of operation.

c. Recordkeeping

The *Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **PF1.015** is operating:

- (1) The calendar date of any required monitoring.
- (2) The TDS value of the circulating water of **PF1.015** on a calendar quarterly basis. The TDS value will be based on the sampling required in Y.4.a of this section.
- (3) The total daily hours of operation of **PF1.015** for the corresponding date.
- (4) The volume flow of the circulating water of **PF1.015** calculated from the daily hours recorded in Y.4.c.(3) of this section and the maximum flow rate as stated in Y.3.c. of this section.
- (5) Maintain manufacturer's guidelines for maintenance and inspection of the drift eliminators on site. Maintain annual inspection records including records of observations and any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

Z. Emission Unit PF1.014

System 12 – SPX Cooling Tower System for Unit #2 Boiler (REVISED 09/2019)		Location UTM (Zone 11, NAD 83)	
		m North	m East
PF1.014	Unit #2 Cooling Tower, Manufactured by SPX (6-Celled, Wet Draft, Counter Flow)	4,525,647	487,396

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
Emissions from **PF1.014** shall be controlled by **drift eliminators** to reduce the cooling tower drift losses to the manufacturer’s specifications of **0.001%** or less.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Operating Parameters
 - a. The maximum circulating water flow rate for **PF1.014** will not exceed **80,200.0** gallons per minute.
 - b. The maximum Total Dissolved Solids (TDS) content for **PF1.014** will not exceed **12,000.0** milligrams per liter (ppm).
 - c. The use of chromium-based water treatment chemicals is prohibited.
 - d. Hours
PF1.014 may operate a total of **24** hours per day.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
On and after the date of startup of **PF1.014**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.014** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.305 Part 70 Program - The discharge of **PM** (total particulate matter) to the atmosphere from **PF1.014** will not exceed **4.81** pounds per hour, nor more than **21.07** tons per 12-month rolling period.
 - b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere from **PF1.014** will not exceed **4.81** pounds per hour, nor more than **21.07** tons per 12-month rolling period.
 - c. NAC 445B.305 Part 70 Program - The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere from **PF1.014** will not exceed **4.81** pounds per hour, nor more than **21.07** tons per 12-month rolling period.
 - d. NAC 445B.22033 Federally Enforceable SIP Requirement – The discharge of **PM₁₀** (particulate less than or equal to 10 microns in diameter) from **PF1.014** to the atmosphere will not exceed **123.52** pounds per hour.
 - e. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **PF1.014**, will not equal or exceed **20%** in accordance with NAC 445B.22017.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Recordkeeping, and Reporting
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.
 - a. The volume flow rate of circulating feed water (in gallons per minute) for **PF1.014** shall be calculated from the daily hours recorded under **Z.4.b.** of this section and the maximum flow rate as stated in **Z.2.a.** of this section.
 - b. Monitor and record the hours of operation for **PF1.014** on a daily basis.
 - c. Monitor and record that the drift eliminators of **PF1.014** are and functional, on an annual basis. Inspection records must show that observations were made and include any corrective actions taken.
 - d. Maintain manufacturer’s guidelines for maintenance and inspection of the drift eliminators on site. Maintain annual inspection records including records of observations and any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

Z. Emission Unit PF1.014 (continued)

5. NAC 445B.3405 (NAC 445B.252(1)) Part 70 Program Performance and Compliance Testing

- a. The Permittee shall sample the cooling tower circulating feed water and determine the total dissolved solids (TDS, reported in mg per liter, or ppm by weight), on a quarterly basis. The TDS concentration will be determined using Standard Method 2540 C-2011 or ASTM D5907-13, or alternative methods approved in advanced by the Director.

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Section VI. Specific Operating Conditions (continued)

AA. Emission Unit S2.025

System 13 – Fuel Oil Storage Tank		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.025	Fuel Oil Storage Tank, Vertical Fixed Roof, 150,000 gallon capacity	4,525,390	487,280

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment
 Emissions from **S2.025** shall be controlled with a control system consisting of a fixed roof and submerged fill.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 On and after the date of startup of **S2.025**, *Permittee* will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.025** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.305 Part 70 Program - The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **92.19** pounds per calendar year.
 - b. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.025** will not equal or exceed **20%** in accordance with NAC 445B.22017.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. **S2.025** may store only **#2 fuel oil**.
 - b. The maximum annual throughput of #2 fuel oil for **S2.025** will not exceed **1,500,000** gallons per calendar year.
 - c. Hours
S2.025 may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 On and after the date of startup of **S2.025**, the *Permittee* will maintain in a contemporaneous logbook or recordkeeping system the following information for **S2.025**:
 - a. On a monthly basis, measure and record the throughput (gallons) of No. 2 fuel oil.
 - sb. On a monthly basis, record the hours of operation for which No. 2 fuel oil was stored in this storage tank.



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Section VI. Specific Operating Conditions (continued)

AB. Emission Unit S2.026

System 14 – Auxiliary Boiler		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.026	Babcock & Wilcox oil-fired package boiler, model # FM 103-88, serial # NA	4,525,460	487,100

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Control Equipment

a. **S2.026** has no add-on controls.

b. Descriptive Stack Parameters:

Stack Height: 190.0 ft
 Stack Diameter: 2.0 ft
 Nominal Exhaust Temperature: 542.93 °F
 Nominal Volumetric Flowrate: 3,094 dscfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

On and after the date of startup of **S2.026**, **Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.026** the following pollutants in excess of the following specified limits:

- a. NAC 445B.2203 Federally Enforceable SIP Requirement– The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.34** pounds per million Btu.
- b. NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.61** pounds per hour.
- c. NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **1.61** pounds per hour.
- d. NAC 445B.305 Part 70 Program - The discharge of **NO_x** (nitrogen oxides) to the atmosphere will not exceed **8.06** pounds per hour.
- e. NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of **sulfur** to the atmosphere will not exceed **78.26** pounds per hour, averaged over each one-hour period.
- f. NAC 445B.305 Part 70 Program - The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **5.72** pounds per hour.
- g. NAC 445B.305 Part 70 Program - The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **4.03** pounds per hour.
- h. NAC 445B.305 Part 70 Program - The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **0.16** pounds per hour.
- i. NAC 445B.305 Part 70 Program - The discharge of **Pb** (lead) to the atmosphere will not exceed **0.00101** pounds per hour.
- j. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.025** will not equal or exceed **20%** in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

AB. Emission Unit S2.026 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program Operating Parameters
 - a. **S2.026** may combust only #2 fuel oil.
 - b. The maximum allowable heat input for **S2.026** will not exceed **111.8** MMBtu/hr (805.5 gallons of oil per hour) in any one-hour period.
 - c. Hours
S2.026 may operate **100.0** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting

On and after the date of startup of **S2.026**, the *Permittee* will maintain in a contemporaneous logbook or recordkeeping system the following information for **S2.026**:

 - a. On a monthly basis, measure and record the volume (gallons) of No. 2 fuel oil combusted in **S2.026**.
 - b. On a monthly basis, record the hours of operation of **S2.026**.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources (Federal Only Requirement) NESHAP for Industrial, Commercial, and Institutional Boiler and Process Heaters, 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480, et. seq.)
 - a. Permittee will be required to comply with the applicable emission and operating limitations no later than January 31, 2016 (40 CFR 63.7495(b)).



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Section VI. Specific Operating Conditions (continued)

AC. Emission Units S2.027 and S2.028

System 15 – Emergency Diesel Fire Pumps		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.027	Emergency Diesel Fire Pump, 227 HP Output	4,525,490	487,060
S2.028	Emergency Diesel Fire Pump, 227 HP Output	4,525,490	487,040

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment

a. **S2.027 and S2.028** have no add-on controls.

b. Descriptive Stack Parameters:

Stack Height: 24.0 ft
 Stack Diameter: 0.5 ft
 Nominal Exhaust Temperature: 826 °F
 Nominal Volumetric Flowrate: 961 acfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

a. On and after the date of startup of **S2.027 and S2.028**, *Permittee* will not discharge or cause the discharge into the atmosphere from the stack of **S2.027 and S2.028**, each, the following pollutants in excess of the following specified limits:

- (1) NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
- (2) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.21** pound per hour.
- (3) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.21** pound per hour.
- (4) NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of **sulfur** to the atmosphere will not exceed **1.33** pounds per hour.
- (5) NAC 445B.305 Part 70 Program - The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **0.001** pound per hour.
- (6) NAC 445B.305 Part 70 Program - The discharge of **NO_x** (nitrogen oxides) to the atmosphere will not exceed **3.90** pounds per hour.
- (7) NAC 445B.305 Part 70 Program - The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **1.30** pound per hour.
- (8) NAC 445B.305 Part 70 Program - The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **0.39** pound per hour.
- (9) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.027 and S2.028**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

AC. Emission Units S2.027 and S2.028 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits (continued)

b. New Source Performance Standards

(1) 40 CFR Part 60.4205(c) *Federally Enforceable New Source Performance Standard Requirement* – Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 of 40 CFR Part 60, Subpart IIII. The following emission standards (in g/kW-hr) apply

(i) For engines with a maximum engine power of greater than 130 kW, but less than 225 kW, the following emission standards (in g/kW-hr) apply:

(A) Non-methane hydrocarbon (NMHC) + Oxides of Nitrogen (NO_x), combined, shall not exceed **10.5 g/kW-hr**;

(B) Carbon Monoxide (CO) shall not exceed **3.5 g/kW-hr**;

(C) Particulate Matter (PM) shall not exceed **0.54 g/kW-hr**.

(2) 40 CFR Part 60.4207(b) *Federally Enforceable New Source Performance Standard Requirement* – Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.

(i) Beginning June 1, 2010, except as otherwise specifically provided in this subpart, all Non-road diesel fuel is subject to the following per-gallon standards:

(A) Sulfur content - 15 (ppm) maximum. (40 CFR 80.510(b)(1))

(B) Cetane index or aromatic content - minimum cetane index of 40 or maximum aromatic content of 35 volume percent. (40 CFR 80.510(b)(2))

c. National Emission Standards for Hazardous Air Pollutants

(1) 40 CFR Part 63.6590(c) *Federally Enforceable New Source Performance Standard Requirement* – Owners and operators of new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions must meet the requirements of 40 CFR part 63 subpart ZZZZ by meeting the requirements of 40 CFR part 60 Subpart IIII, for compression ignitions.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. **S2.027 and S2.028** may combust #2 Distillate Fuel Oil only.

b. **S2.027 and S2.028, each**, may not combust more than the design maximum, per the manufacturer's specification, of **11.2** gallons of #2 Distillate Fuel Oil per hour.

c. The sulfur content of the #2 Distillate Fuel Oil combusted in **S2.027 and S2.028** will not exceed **0.0015%** by weight.

d. **S2.027 and S2.028, each**, may not operate on a routine basis in excess of **100** hours per calendar year of nonemergency use as stated in 40 CFR Part 60.4211(f), Subpart IIII. If additional firing is required for nonemergency fire protection, *the Permittee* will document the situation and handle the operation as excess emissions as required by Section III.B.



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Section VI. Specific Operating Conditions (continued)

AC. Emission Units S2.027 and S2.028 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. On and after the date of startup of **S2.027 and S2.028**, the **Permittee** will:

- (1) Monitor and record the total monthly hours of operation of **S2.027 and S2.028** each month of operation for emergency and nonemergency use.
- (2) Record the total monthly fuel consumption for **S2.027 and S2.028** calculated from the monthly hours recorded in AC.4.a.(1) of this section and the maximum flow rate as stated in AC.3.b. of this section.
- (3) Conduct and record a Method 9 visible emissions test on the stack discharge of **S2.027 and S2.028** while the Diesel Engine Driven Generator is operating, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- (4) 40 CFR Part 60.4211(c) *Federally Enforceable New Source Performance Standard Requirement* - The **Permittee** shall comply with the applicable NSPS Subpart IIII emission limits by purchasing an engine certified to the emission standards in AC.2.b.(1) of this section. The engine must be installed and configured according to the manufacturer's specifications.
- (5) 40 CFR Part 60.4209(a) *Federally Enforceable New Source Performance Standard Requirement* - As an owner or operator of an emergency stationary CI ICE, the **Permittee** must install a non-resettable hour meter prior to startup of the engine.
- (6) 40 CFR Part 60.4211(e) *Federally Enforceable New Source Performance Standard Requirement* - Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations.
- (7) 40 CFR Part 60.4214(b) *Federally Enforceable New Source Performance Standard Requirement* - The **Permittee** is not required to submit an initial notification (i.e., notifications of construction and startup) under 40 CFR Part 60.7. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to nonemergency engines in the applicable model year, the **Permittee** must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The **Permittee** must record the time of operation of the engine and the reason the engine was in operation during that time.



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Section VI. Specific Operating Conditions (continued)

AD. Emission Unit S2.037

System 16 – Emergency Diesel Generator #1 (REVISED 1/2024)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.029	Emergency Diesel Generators, 375 HP Output (REMOVED 1/2024)	4,525,520	487,140
S2.037	Emergency Diesel Generator (539 HP, CAT, Model C13) (ADDED 1/2024)	4,525,520	487,140

1. Air Pollution Control Equipment (NAC 445B.3405)
 - a. **S2.037** has no add-on controls.
 - b. Descriptive Stack Parameters
 Stack Height: 8.75 feet
 Stack Diameter: 0.42 feet
 Stack Temperature: 1,062.6 °F

2. Operating Parameters (NAC 445B.3405)
 - a. **S2.037** may consume only **diesel**.
 - b. The maximum allowable fuel consumption rate for **S2.037** shall not exceed **24.9 gallons** per hour, averaged over calendar day, nor more than **2,490.0 gallons** per 12-month rolling period.
 - c. Hours
 - (1) **S2.037** may operate a total of **24** hours per day.
 - (2) **S2.037** may operate a total of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.3405)
 The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.037** the following pollutants in excess of the following specified limits:
 - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.0059** tons per 12-month rolling period.
 - b. The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.0059** tons per 12-month rolling period.
 - c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.12** pounds per hour, nor more than **0.0059** tons per 12-month rolling period.
 - d. The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **1.10** pounds per hour, nor more than **0.055** tons per 12-month rolling period.
 - e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **5.44** pounds per hour, nor more than **0.27** tons per 12-month rolling period.
 - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **1.60** pounds per hour, nor more than **0.080** tons per 12-month rolling period.
 - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.012** pounds per hour, nor more than **0.00059** tons per 12-month rolling period.
 - h. NAC 445B.22017 – The opacity from the **S2.037** shall not equal or exceed **20** percent.
 - i. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.037** shall not exceed **2.64** pounds per hour.



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Section VI. Specific Operating Conditions (continued)

AD. Emission Unit S2.037 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of **diesel** for each calendar day for **S2.037** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AD.2.b.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as determined from the maximum engine size, brake-specific fuel consumption, and heat content.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Monitor and record the total daily hours of operation for **S2.037** for each calendar day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
- d. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.

5. Federal Requirements (NAC 445B.3405, 40 CFR Part 60)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

a. Emissions Standards (40 CFR 60.4205)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))

(1) For a 2007 model year and later Tier 3 non-road engine with a rated power greater than or equal to 37 kW (50 hp): (40 CFR 60.4202(a), 40 CFR 1039 Appendix I Table 3)

- (a) The discharge of PM to the atmosphere shall not exceed **0.20** grams/kW-hr (**0.18** pounds per hour).
- (b) The discharge of CO to the atmosphere shall not exceed **3.50** grams/kW-hr (**3.10** pounds per hour).
- (c) The discharge of NMHC (non-methane hydrocarbon) + NO_x to the atmosphere shall not exceed **4.00** grams/kW-hr (**3.54** pounds per hour).

(2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 1039.105(b))

- (a) 20 percent during acceleration mode;
- (b) 15 percent during the lugging mode; and
- (c) 50 percent during the peaks in either the acceleration or lugging modes.

b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.

c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))



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Section VI. Specific Operating Conditions (continued)

AD. Emission Unit S2.037 (continued)

5. Federal Requirements (NAC 445B.3405, 40 CFR Part 60) (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
 - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
 - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
 - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
 - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **AD.5.d.(5)** of this section. (40 CFR 60.4211(c))
 - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, 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 paragraphs **AD.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **AD.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
 - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
 - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **AD.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **AD.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
 - i. Emergency stationary ICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
 - (c) Emergency stationary ICE 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 paragraph **AD.5.d.(4)(b)** of this section. Except as provided in paragraph **AD.5.d.(4)(c)** of this section, the 50 hours per calendar 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. (40 CFR 60.4211(f)(3))
 - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



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Section VI. Specific Operating Conditions (continued)

AD. Emission Unit S2.037 (continued)

5. Federal Requirements (NAC 445B.3405, 40 CFR Part 60) (continued)
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
 - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
 - (5) If the Permittee does not install, configure, operate, and maintain the Permittee’s engine and control device according to the manufacturer’s emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
 - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, 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 must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer’s emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
 - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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Section VI. Specific Operating Conditions (continued)

AE. Emission Unit S2.030

System 17 – Emergency Diesel Generator #2		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.030	Emergency Diesel Generator Unit #2 Boiler, 600 HP Output	4,525,520	487,170

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Control Equipment

- a. **S2.030** has no add-on controls.

- b. Descriptive Stack Parameters:

Stack Height:	20 ft
Stack Diameter:	0.33 ft
Nominal Exhaust Temperature:	824.8 °F
Nominal Volumetric Flowrate:	278.4 acfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

- a. On and after the date of startup of **S2.030**, *Permittee* will not discharge or cause the discharge into the atmosphere from the stack of **S2.030**, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
 - (2) NAC 445B.305 Part 70 Program - The discharge of **PM₁₀** to the atmosphere will not exceed **1.30** pound per hour.
 - (3) NAC 445B.305 Part 70 Program - The discharge of **PM** (particulate matter) to the atmosphere will not exceed **1.30** pound per hour.
 - (4) NAC 445B.22047 Federally Enforceable SIP Requirement - The discharge of sulfur to the atmosphere will not exceed **2.94** pound per hour.
 - (5) NAC 445B.305 Part 70 Program - The discharge of **SO₂** (sulfur dioxide) to the atmosphere will not exceed **1.22** pound per hour.
 - (6) NAC 445B.305 Part 70 Program - The discharge of **NO₂** (nitrogen dioxide) to the atmosphere will not exceed **18.5** pounds per hour.
 - (7) NAC 445B.305 Part 70 Program - The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **3.99** pounds per hour.
 - (8) NAC 445B.305 Part 70 Program - The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **1.47** pound per hour.
 - (9) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.030**, will not equal or exceed **20%**, each, in accordance with NAC 445B.22017.



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Section VI. Specific Operating Conditions (continued)

AE. Emission Unit S2.030 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program Operating Parameters
 - a. **S2.030** may combust diesel fuel only.
 - b. The maximum diesel fuel consumption rate for **S2.030**, per the manufacturer's specifications, will not exceed **30.0** gallons per hour.
 - c. The maximum diesel sulfur content shall not exceed **15** ppm by weight sulfur.
 - d. Hours
S2.030, each, may operate 24 hours per day and up to 100 hours per year for nonemergency use.
 - e. The *Permittee* must install a non-resettable hour meter if one is not already installed (40 CFR Part 63.6625(f)) for **S2.030**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting
The *Permittee* will:
 - a. Monitor and record the hours of operation of **S2.030** on a monthly basis for emergency and nonemergency use.
 - b. The required monitoring established in **AE.4.a.** above will be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:
 - (1) The calendar date of any required monitoring.
 - (2) The total monthly hours of operation for the corresponding date.
 - (3) The total monthly fuel consumption, in gallons, for the corresponding date calculated from the hours recorded in **AE.4.b.(2)** of this section and the maximum flow rate as stated in **AE.3.b.** of this section.
 - (4) The monthly hours of operation and the corresponding sum of the monthly hours of operation beginning in January of each year to ensure compliance with the annual limit on operating hours, as specified in **AE.3.d.** of this section.

5. National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories
NESHAP for *Stationary Reciprocating Internal Combustion Engines (RICE)*, 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580, et. seq.) – *Existing* stationary RICE located at a *Major Source* of HAP emissions (40 CFR 63.6590(a)(1)(ii))
 - a. Permittee will comply with all applicable requirements set forth in 40 CFR Part 63, Subpart ZZZZ.



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Section VI. Specific Operating Conditions (continued)

AF. Emission Units S2.035 and PF1.016

Table with 3 columns: System ID, System Description, Location UTM (m North, m East). Rows include System 18 - 1A North DSI Lime Silo and units S2.035 and PF1.016.

- 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
a. Emissions from S2.035 shall be controlled by a control system consisting of a dust cartridge collector to control particulate matter emissions while loading the storage bin.
b. Descriptive Stack Parameters: Manufacturer: Camfil, Stack Height: 114.3 ft, Stack Diameter: 3.5 ft, Nominal Exhaust Temperature: Ambient, Nominal Stack Exit Velocity: 2.6 fps, Nominal Volumetric Flowrate: 960.0 acfm, Nominal Volumetric Flowrate: 750.0 dscfm
c. Emissions from PF1.016 will be controlled by unloading through an enclosed piping system with no source emissions to the atmosphere.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
a. On and after the date of startup of S2.035, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.035 the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.06 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.06 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.035 will not equal or exceed 20% in accordance with NAC 445B.22017.
b. On and after the date of startup of PF1.016, Permittee will not discharge or cause the discharge into the atmosphere from PF1.016, the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.016 will not equal or exceed 20% in accordance with NAC 445B.22017



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Section VI. Specific Operating Conditions (continued)

AF. Emission Units S2.035 and PF1.016 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.016**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.016**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.016** will not exceed **0%**.
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of sorbent (Lime, Trona, or Soda Ash) or Sorbent mixed with Activated Carbon to **S2.035** will not exceed **50.0** tons per hour, averaged on a monthly basis.
 - b. Hours
S2.035 and PF1.016, each, may operate **8,760** hours per calendar year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 - a. 40 CFR Part 64 Compliance Assurance Monitoring Program
On and after the date of initial startup, *Permittee* will:
 - (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the dust cartridge collector controlling emissions from **S2.035**.
 - (2) Conduct and record a reading of the dust cartridge collector pressure drop for **S2.035** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
 - (3) The indicator range for the dust cartridge collector pressure drop shall be less than **9.0** inches of water for the dust cartridge collector controlling emissions from **S2.035**. Excursions shall be defined as anytime the dust cartridge collector internal pressure exceeds this indicator range.
 - (4) The pressure drop will be measured using a calibrated device.
 - (5) Conduct and record a dust cartridge collector inspection on an annual basis.
 - (6) The required monitoring established in AF.4.a.(1) through (5) of this section, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.035** is operating:
 - (i) Results of the reading of the internal pressure drop of the dust cartridge collector controlling emissions from **S2.035**.
 - (ii) Results and verification of the annual dust cartridge collector inspection and documentation of the inspection date of the dust cartridge collector controlling emissions from **S2.035**, and any corrective actions taken.
 - (7) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.



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Section VI. Specific Operating Conditions (continued)

AF. Emission Units S2.035 and PF1.016 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting

b. **Permittee** will:

- (1) On a monthly basis, record the amount of sorbent (Lime, Trona, or Soda Ash) or Sorbent mixed with Activated Carbon loaded into **S2.035** each day loading occurs and the duration of the loading.
- (2) On a monthly basis, record the hours of operation of **S2.035**.
- (3) On an annual basis, perform an inspection of the **S2.035** dust cartridge collector, including a visual inspection of the collectors and all connecting points. Annual dust cartridge collector inspection records must show that observations were made and include records of any corrective actions taken.
- (4) During loading for **S2.035**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.035**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **PF1.016** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.016**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

AG. Emission Units S2.036 and PF1.017

Table with 3 columns: System ID, System Description, Location UTM (m North, m East). Rows include System 19 - 2B South DSI Lime Silo and units S2.036 and PF1.017.

- 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program Air Pollution Control Equipment
a. Emissions from S2.036 shall be controlled by a control system consisting of a dust cartridge collector to control particulate matter emissions while loading the storage bin.
b. Descriptive Stack Parameters:
Manufacturer: Camfil
Stack Height: 114.3 ft
Stack Diameter: 3.5 ft
Nominal Exhaust Temperature: Ambient
Nominal Stack Exit Velocity: 2.6 fps
Nominal Volumetric Flowrate: 960.0 acfm
Nominal Volumetric Flowrate: 750.0 dscfm
c. Emissions from PF1.017 will be controlled by unloading through an enclosed piping system with no source emissions to the atmosphere.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program Emission Limits
a. On and after the date of startup of S2.036, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of S2.036 the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.06 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.06 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from S2.036 will not equal or exceed 20% in accordance with NAC 445B.22017.
b. On and after the date of startup of PF1.017, Permittee will not discharge or cause the discharge into the atmosphere from PF1.017, the following pollutants in excess of the following specified limits:
(1) NAC 445B.22033 Federally Enforceable SIP Requirement - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 44.58 pounds per hour.
(2) NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.0 pound per hour.
(3) NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.0 pound per hour.
(4) NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from PF1.017 will not equal or exceed 20% in accordance with NAC 445B.22017



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Section VI. Specific Operating Conditions (continued)

AG. Emission Units S2.036 and PF1.017 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Emission Limits (continued)
 - b. On and after the date of startup of **PF1.017**, *Permittee* will not discharge or cause the discharge into the atmosphere from **PF1.017**, the following pollutants in excess of the following specified limits:
 - (5) NAC 445B.305 Part 70 Program - The opacity from **PF1.017** will not exceed **0%**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. Maximum allowable loading rate of sorbent (Lime, Trona, or Soda Ash) or Sorbent mixed with Activated Carbon to **S2.036** will not exceed **50.0** tons per hour, averaged on a monthly basis.
 - b. Hours
S2.036 and PF1.017, each, may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting
 - a. 40 CFR Part 64 Compliance Assurance Monitoring Program
On and after the date of initial startup, *Permittee* will:
 - (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the dust cartridge collector controlling emissions from **S2.036**.
 - (2) Conduct and record a reading of the dust cartridge collector pressure drop for **S2.036** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
 - (3) The indicator range for the dust cartridge collector pressure drop shall be less than **9.0** inches of water for the dust cartridge collector controlling emissions from **S2.036**. Excursions shall be defined as anytime the dust cartridge collector internal pressure exceeds this indicator range.
 - (4) The pressure drop will be measured using a calibrated device.
 - (5) Conduct and record a dust cartridge collector inspection on an annual basis.
 - (6) The required monitoring established in AG.4.a.(1) through (5) of this section, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.036** is operating:
 - (i) Results of the reading of the internal pressure drop of the dust cartridge collector controlling emissions from **S2.036**.
 - (ii) Results and verification of the annual dust cartridge collector inspection and documentation of the inspection date of the dust cartridge collector controlling emissions from **S2.036**, and any corrective actions taken.
 - (7) Report excursions as required in 40 CFR Part 64.9 and Section V.C.3 of this operating permit.



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Section VI. Specific Operating Conditions (continued)

AG. Emission Units S2.036 and PF1.017 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting

b. **Permittee** will:

- (1) On a monthly basis, record the amount of sorbent (Lime, Trona, or Soda Ash) or Sorbent mixed with Activated Carbon loaded into **S2.036** each day loading occurs and the duration of the loading.
- (2) On a monthly basis, record the hours of operation of **S2.036**.
- (3) On an annual basis, perform an inspection of the **S2.036** dust cartridge collector, including a visual inspection of the collectors and all connecting points. Annual dust cartridge collector inspection records must show that observations were made and include records of any corrective actions taken.
- (4) During loading for **S2.036**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.036**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **PF1.017** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.017**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038

System 20 – Unit #3 Combustion Turbine (General Electric) (ADDED XX/2026, Air Case 12313)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.038	Unit #3 Combustion Turbine (Manufactured by General Electric; Model F7.FA; commence construction 2026; Max Heat Input 2,153 MMBtu/hr)	4,525,456	487,589

1. Air Pollution Control Equipment (NAC 445B.3405)

a. Emissions from **S2.038** shall be controlled by the following:

- (1) **Dry Low-NO_x Burners** for the control of oxides of nitrogen (NO_x).
- (2) A **Selective Catalytic Reduction (SCR)** system for the control of oxides of nitrogen (NO_x).
- (3) An **Oxidation Catalyst** system for the control of carbon monoxide (CO) and volatile organic compounds (VOC).
- (4) The **SCR and Oxidation Catalyst**, each, shall be maintained at a temperature range identified by the manufacturer.
- (5) The **SCR** shall utilize urea/ammonia injection into the **SCR** at a volume specified by the manufacturer.

b. Descriptive Stack Parameters

Stack Height: 130.0 feet
 Stack Diameter: 26.0 feet
 Stack Temperature: 1,205.0 °F
 Exhaust Flow: 963,490.0 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.3405)

- a. **S2.038** may consume only **pipeline quality natural gas**.
- b. The maximum allowable fuel consumption rate for **S2.038** shall not exceed **2,266,736.8 standard cubic feet (scf)** per hour, averaged over a calendar day, nor more than **19,671,241,824.6 standard cubic feet (scf)** per 12-month rolling period.
- c. The sulfur content shall not exceed **0.50 grains per 100 scf**.
- d. **S2.038** shall not exceed **250 start-up events** per year. Each start-up shall not exceed **30 minutes** per event.
- e. **S2.038** shall not exceed **250 shutdown events** per year. Each shutdown shall not exceed **15 minutes** per event.
- f. **“Steady-state operation”** shall be defined as the period during which **S2.038** has reached a stable load at or near its design capacity, consistent with normal operating conditions. The **SCR and Oxidation Catalyst** shall be fully engaged and functioning as intended during this period.
- g. A **“start-up event”** shall be defined as the period of time from when fuel is first fired to when the load has been achieved at which it has been demonstrated (by a Continuous Emissions Monitoring System or during compliance source testing) that the emission limits under **AH.3.** of this section can be met during steady-state operation (i.e. the Minimum Emissions Compliance Load). The **SCR and Oxidation Catalyst** will not be fully functional during start-up events.
- h. A **“shutdown event”** shall be defined as the period of time from the Minimum Emissions Compliance Load to when firing of fuel has ceased. The **SCR and Oxidation Catalyst** will be fully functional during shutdown events.
- i. **“Testing/tuning”** shall be defined as planned operation outside of normal emissions limitations for the purposes of data collection, diagnostics, or operational adjustment.
- j. Hours
 - (1) **S2.038** may operate a total of **24 hours** per day.
 - (2) **S2.038** and **S2.039** (under System 21), combined, shall not exceed **300 hours** per year of **testing/tuning periods**. The **SCR and Oxidation Catalyst** will not be fully functional during testing/tuning periods.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.3405)

- a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.038** the following pollutants in excess of the following specified limits during **steady-state operations**:
- (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (3) The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (4) Best Available Control Technology (BACT) Emission Limit – The discharge of **Total PM** (including both filterable and condensable particulate matter) to the atmosphere shall not exceed **0.0076** pounds per MMBtu “High Heat Value” (HHV) or **15.4** pounds per hour.
 - (5) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **3.38** pounds per hour.
 - (6) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed:
 - (a) **23.8** pounds per hour.
 - (b) BACT Emission Limit – **2.90** parts per million by volume (corrected to 15% O₂), per 4-hour rolling average.
 - (7) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **19.5** pounds per hour.
 - (8) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **10.0** pounds per hour.
 - (9) The discharge of **H₂SO₄** (sulfuric acid mist) to the atmosphere shall not exceed **2.28** pounds per hour.
 - (10) NAC 445B.2203 – The maximum allowable discharge of **PM₁₀** to the atmosphere from **S2.038** shall not exceed **0.17** pounds per MMBtu.
 - (11) BACT Emission Limit (Greenhouse Gases) – The discharge of **CO₂** (carbon dioxide) to the atmosphere shall not exceed:
 - (a) **251,900.0** pounds per hour, or
 - (b) **53.06** kilograms per MMBtu (high heating value)
- b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.038** the following pollutants in excess of the following specified limits during **steady-state operations, start-up events, shutdown events, and testing/tuning periods**:
- (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (3) The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (4) Best Available Control Technology (BACT) Emission Limit – The discharge of **Total PM** (including both filterable and condensable particulate matter) to the atmosphere shall not exceed **0.0076** pounds per MMBtu “High Heat Value” (HHV).
 - (5) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **13.9** tons per 12-month rolling period.
 - (6) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed:
 - (a) **112.3** tons per 12-month rolling period.
 - (8) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **161.1** tons per 12-month rolling period.
 - (9) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed:
 - (a) **49.3** tons per 12-month rolling period.
 - (b) BACT Emission Limit – **2.00** parts per million by volume (corrected to 15% O₂).



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.3405)

b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.038 the following pollutants in excess of the following specified limits during **steady-state operations, start-up events, shutdown events, and testing/tuning periods** (continued):

(10) The discharge of H₂SO₄ (sulfuric acid mist) to the atmosphere shall not exceed:

(a) 9.41 tons per 12-month rolling period.

(b) BACT Emission Limit – 0.0011 pounds per MMBtu.

(11) NAC 445B.22017 – The opacity from the exhaust stack of S2.038 shall not equal or exceed 20 percent.

(12) NAC 445B.2203 – The maximum allowable discharge of PM₁₀ to the atmosphere from S2.038 shall not exceed 0.17 pounds per MMBtu.

(13) BACT Emission Limit (Greenhouse Gases) – The discharge of CO₂ (carbon dioxide) to the atmosphere shall not exceed 1,037,600.0 tons per year.

c. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.038 the following pollutants in excess of the following specified limits during **start-up events, shutdown events, and testing/tuning periods**:

(1) The discharge of NO_x (oxides of nitrogen) to the atmosphere shall not exceed 96.0 parts per million (corrected to 15% O₂), per 4-hour rolling average.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

a. Natural Gas

(1) Install, calibrate, operate, and maintain a fuel flow meter to continuously record the quantity (in scf) of the **pipeline quality natural gas** for each calendar day for S2.038.

(2) Monitor and record the consumption rate of **pipeline quality natural gas** for each calendar day for S2.038 (in scf) by use of a fuel flow meter.

(3) Record the corresponding average hourly consumption rate of **pipeline quality natural gas** in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

(4) Record the consumption rate of **pipeline quality natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.

(5) The Permittee shall maintain and keep on site documentation demonstrating that the fuel combusted under AH.2.a. of this section complies with the sulfur content under AH.2.c. of this section.

b. SCR

(1) Install, calibrate, operate, and maintain a temperature gauge to continuously record the temperature (in Fahrenheit or Celsius) of the **SCR** exhaust. The gauge shall be installed at a location recommended by the manufacturer.

(2) Install, calibrate, operate, and maintain a flow indicator to continuously record the urea/ammonia sent to the **SCR** catalyst bed.

(3) Monitor and record the **SCR** temperature and urea/ammonia injection volume values as determined by the manufacturer by use of a temperature gauge and flow indicator, respectively.

(4) The Permittee shall keep on site the manufacturer's documentation containing the normal operating temperature and urea/ammonia injection parameters for the **SCR**.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

b. SCR (continued)

(5) Configure, operate, and maintain the SCR monitoring computer systems and engine computer systems for S2.038 to:

(a) Automatically record and alert if the temperature is not within the manufacturer's specifications as required to achieve manufacturer's guaranteed emission reductions for the SCR system using the gauge required in AH.4.e. of this section.

(b) Automatically record and alert if the urea/ammonia injection is not within manufacturer's specifications or the range established during the most recent tuning procedure, as required to achieve manufacturer's guaranteed emission reductions for the SCR system using the flow indicator required in AH.4.f. of this section.

(c) Should either the temperature alarm or urea/ammonia alarm be activated, the Permittee shall investigate the alarm within 1 hour from the time the alarm notice began and record the alarm event within 24 hours. Record of the alarm event shall include the corresponding alert message, cause of the alarm, date, time, and course of remediation.

(6) Conduct and record an observation of visible emissions (excluding water vapor) on the exhaust stack of S2.038 (post-controls) on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

(7) Inspect the SCR on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual to confirm that the SCR is functioning properly. If the SCR is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the SCR is functioning properly.

c. Hours

(1) Monitor and record the hours of operation for S2.038 for each calendar day.

(2) Monitor and record the start time and end time of each **start-up event**, as well as the corresponding duration (in minutes) per event. The number of start-up events shall be recorded on a monthly basis.

(3) Monitor and record the start time and end time of each **shutdown event**, as well as the corresponding duration (in minutes) per event. The number of shutdown events shall be recorded on a monthly basis.

(4) Monitor and record the duration (in hours) of each **testing/tuning period** and the corresponding annual hours of testing/tuning for the calendar year.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

d. Oxidation Catalyst

(1) The Permittee shall keep on site the manufacturer's documentation containing the normal operating temperature for the **Oxidation Catalyst**.

(2) Inspect the **Oxidation Catalyst** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual to confirm that the **Oxidation Catalyst** is functioning properly. If the **Oxidation Catalyst** is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the **Oxidation Catalyst** is functioning properly.

e. Determine the gross calorific value (GCV) of **pipeline quality natural gas** consumed by **S2.038** in conformance with 40 CFR Part 75 Appendix D requirements.

f. Using the most recent performance tests, as specified above, the Permittee shall calculate the following emission factors, based on the average of 3 test runs:

(1) Pounds of PM per scf (lbs-PM/scf) of Pipeline Quality Natural Gas, or pounds of PM per MMBtu (lbs-PM/MMBtu) of Pipeline Quality Natural Gas.

(2) Pounds of PM₁₀ per scf (lbs-PM₁₀/scf) of Pipeline Quality Natural Gas, or pounds of PM₁₀ per MMBtu (lbs-PM₁₀/MMBtu) of Pipeline Quality Natural Gas.

(3) Pounds of CO per scf (lbs-CO/scf) of Pipeline Quality Natural Gas, or pounds of CO per MMBtu (lbs-CO/MMBtu) of Pipeline Quality Natural Gas.

(4) Pounds of VOC per scf (lbs-VOC/scf) of Pipeline Quality Natural Gas, or pounds of VOC per MMBtu (lbs-VOC/MMBtu) of Pipeline Quality Natural Gas.

g. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.S. Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
- b. Testing shall be conducted on the exhaust stack (post controls).
- c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM₁₀ and PM_{2.5} emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
- e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM_{2.5} for determination of compliance.
- f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
- g. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
- h. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements

a. **New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines**

(1) **Emission Limits (40 CFR 60.4315a)**

(a) The Permittee must not discharge into the atmosphere any gases that contain an amount of NO_x that exceeds the applicable emissions standard and be in accordance with the requirements specified in 40 CFR 60.4320a(b). If the Permittee chooses to use NO_x CEMS, input-based emission rates and standards are determined on a 4-operating-hour rolling basis and output-based emission rates and standards are determined on a 30-operating-day rolling basis. Mass-based emission rates are determined on both a 4-operating-hour and 12-calendar-month rolling basis. (40 CFR 60.4320a(a))

(i) The Permittee shall not exceed the following NO_x emission limits (40 CFR Part 60.4320a(a), Table 1):

Combustion Turbine Type	Combustion Turbine Base Load Rated Heat Input (HHV)	Input-Based NO _x Emission Standard ¹	Optional Output-Based NO _x Standard ²
New, firing natural gas with utilization rate >45 percent	>850 MMBtu/hr	5 ppm at 15 percent O ₂ or 7.9 ng/J (0.018 lb/MMBtu)	0.054 kg/MWh-gross (0.12 lb/MWh-gross) 0.055 kg/MWh-net (0.12 lb/MWh-net)
New, firing natural gas with utilization rate ≤45 percent and with design efficiency <38 percent	>850 MMBtu/hr	9 ppm at 15 percent O ₂ or 14 ng/J (0.033 lb/MMBtu)	0.17 kg/MWh-gross (0.37 lb/MWh-gross) 0.17 kg/MWh-net (0.38 lb/MWh-net)
Located north of the Arctic Circle (latitude 66.5 degrees north), operating at ambient temperatures less than 0 °F (-18 °C), modified or reconstructed offshore turbines, operated during periods of turbine tuning, byproduct-fired turbines, and/or operating at less than 70 percent of the base load rating	>300 MMBtu/h	96 ppm at 15 percent O ₂ or 150 ng/J (0.35 lb/MMBtu)	N/A

¹Input-based standards are determined on a 4-operating-hour rolling average bases.

²Output-based standards are determined on a 30-operating-day average basis.

(b) The applicable NO_x emission standards shall be determined on an operating-hour basis, unless the Permittee elects to use the alternative provided for in 40 CFR Part 60.4320a(b)(2). Determining the hourly NO_x emission standards requires recording hourly data and maintaining records according to the requirements in 40 CFR Part 60.4390a. For hours with multiple emission standards, the applicable standard for that hour is determined based on the condition, excluding periods of monitor downtime, that corresponds to the highest emissions standard. (40 CFR 60.4320a(b)(1))

(c) As an alternative to the requirements specified in 40 CFR Part 4320a(b)(1), the Permittee may elect to use the lowest NO_x emission standard that is applicable, as determined using table 1 to 40 CFR Part 60 Subpart KKKKa, for the entire required compliance period. (40 CFR 60.4320a(b)(2))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(1) Emission Limits (40 CFR 60.4315a) (continued)

(d) During each operating hour when only natural gas is combusted, the Permittee must meet the NO_x emission standard as determined by the applicable size category in Table 1 to 40 CFR Part 60 Subpart KKKKa, as applicable, which corresponds to a stationary combustion turbine firing natural gas for that operating hour. (40 CFR 60.4320a(b)(3))

(e) The Permittee must meet the applicable NO_x emissions standard to the affected facility during all times that the affected facility is operating (including periods of startup, shutdown, and malfunction). (40 CFR 60.4320a(d))

(f) For each new, modified, or reconstructed stationary combustion turbine, the Permittee must not cause to be discharged from the affected facility and into the atmosphere any gases that contain an amount of SO₂ exceeding either (40 CFR 60.4330a(a)):

(i) **110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh))** gross energy output (40 CFR 60.4330a(a)(1)); or

(ii) **26 ng SO₂/J (0.060 lb SO₂/MMBtu)** heat input. (40 CFR 60.4330a(a)(2))

(2) General Compliance Requirements (40 CFR 60.4333a)

(a) The Permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction. (40 CFR 60.4333a(a))

(b) The Permittee must conduct an initial performance test according to 40 CFR Part 60.8 using the applicable methods in 40 CFR Parts 60.4400a or 60.4405a. (40 CFR 60.4333a(b))

(c) The Permittee must demonstrate continuous compliance using a continuous emissions monitoring system (CEMS) for measuring NO_x emissions according to the provisions in 40 CFR Part 60.4345a. If the Permittee's stationary combustion turbine is equipped with a NO_x CEMS, those measurements must be used to determine excess emissions. (40 CFR 60.4333a(c))

(i) If the stationary combustion turbine does not use water injection, steam injection, or post-combustion controls to meet the applicable NO_x emissions standard in 40 CFR 60.4320a, the Permittee may elect to demonstrate continuous compliance with an input-based standard according to the provisions in 40 CFR 60.4340a. (40 CFR 60.4333a(c)(2))

(d) The Permittee subject to an SO₂ standard in 40 CFR 60.4330a(a) must demonstrate compliance by conducting an initial performance test according to 40 CFR 60.8 and use the applicable methods in 40 CFR 60.4415a. Thereafter, maintain records (such as a current, valid purchase contract, tariff sheet, or transportation contract) documenting that total sulfur content for the initial and subsequent fuel combusted in the stationary combustion turbine at all times does not exceed applicable conditions specified in 40 CFR 60.4370a. (40 CFR 60.4333a(d)(3))

(e) If the Permittee elects to comply with the mass-based standard, the Permittee must demonstrate continuous compliance using either a CEMS for measuring NO_x emissions according to the provisions in 40 CFR 60.4345a or using the methodology in Appendix E to Part 75 of Chapter I. (40 CFR 60.4333a(g))

(3) Monitoring

(a) Each CEMS measuring NO_x emissions used to meet the requirements of Subpart KKKKa, must meet the following requirements: (40 CFR 60.4345a(a))

(i) The Permittee must install, certify, maintain, and operate a NO_x monitor to determine the hourly average NO_x emissions in the units of the standard with which the Permittee is complying. (40 CFR 60.4345a(a)(1))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(a) Each CEMS measuring NO_x emissions used to meet the requirements of Subpart KKKKa, must meet the following requirements: (40 CFR 60.4345a(a)) (continued)

(ii) If the Permittee elects to comply with an input-based emissions standard, the Permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. (40 CFR 60.4345a(a)(2))

(iii) If the Permittee elects to comply with an output-based emissions standard, the Permittee must also install, calibrate, maintain, and operate both a watt meter (or meters) to continuously measure the gross electrical output from the affected facility and either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor. (40 CFR 60.4345a(a)(3))

(iv) If the Permittee elects to comply with the part-load NO_x emissions standard, the Permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. (40 CFR 60.4345a(a)(4))

(b) Each NO_x CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to Part 60. The span value must be 125 percent of the highest applicable standard or highest anticipated hourly NO_x emissions rate. Alternatively, span values determined according to Section 2.1.2 in Appendix A to Part 75 may be used. For stationary combustion turbines that do not use post-combustion technology to reduce emissions of NO_x to comply with the requirements of 40 CFR Part 60 Subpart KKKKa, the Permittee may use NO_x and diluent CEMS that are installed and certified according to Appendix A to Part 75 in lieu of Procedure 1 in Appendix F to Part 60 and the requirements of 40.CFR Part 60.13, except that the relative accuracy test audit (RATA) of the CEMS must be performed on a lb/MMBtu basis. For stationary combustion turbines that use post-combustion technology to reduce emissions of NO_x to comply with the requirements of 40 CFR Part 60 Subpart KKKKa, the Permittee may use NO_x and diluent CEMS that are installed and certified according to Appendix A to Part 75 in lieu of Procedure 1 in Appendix F to Part 60 and the requirements of 40 CFR Part 60.13 with approval from the Administrator or delegated authority, except that the relative accuracy test audit (RATA) of the CEMS must be performed on a lb/MMBtu basis. (40 CFR 60.4345a(b))

(c) During each full operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour. For partial operating hours, at least one data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two data points (one in each of two quadrants) are required for each monitor. (40 CFR 60.4345a(c))

(d) Each fuel flow meter must be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, fuel flow meters that meet the installation, certification, and quality assurance requirements in Appendix D to Part 75 of Chapter I are acceptable for use under 40 CFR Part 60 Subpart KKKKa. (40 CFR 60.4345a(d))

(e) Each watt meter, steam flow meter, and each pressure or temperature measurement device must be installed, calibrated, maintained, and operated according to manufacturer's instructions. (40 CFR 60.4345a(e))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

- (f)** The Permittee must develop, submit to the Administrator or delegated authority for approval, maintain, and adhere to an on-site quality assurance (QA) plan for all of the continuous monitoring equipment the Permittee uses to comply with 40 CFR Part 60 Subpart KKKKa. At a minimum, such a QA plan must address the requirements of 40 CFR Part 60.13(d), (e), and (h). For the CEMS and fuel flow meters, the Permittee that does not use post-combustion technology to reduce emissions of NO_x to comply with the requirements of Subpart KKKKa may, with approval of the Administrator or delegated authority, satisfy the requirements of this 40 CFR 60.4345a(f) by implementing the QA program and plan described in Section 1 in Appendix B to Part 75 of Chapter I in lieu of the requirements in 40 CFR 60.13(d)(1). (40 CFR 60.4345a(f))
- (g)** At a minimum, non-out-of-control CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-operating-day rolling average basis. (40 CFR 60.4345a(g))
- (h)** If the Permittee demonstrates continuous compliance using a CEMS for measuring NO_x emissions, excess emissions are defined as the applicable compliance period for the stationary combustion turbine (either 4-operating-hours, 30-operating-days, or 12-calendar-month), during which the average NO_x emissions measured by the CEMS is greater than the applicable maximum allowable NO_x emissions standard specified in 40 CFR 60.4320a as determined using the procedures specified 40 CFR 60.4350a that apply to the stationary combustion turbine. (40 CFR 60.4350a(a))
- (i)** The NO_x CEMS data for each operating hour as measured according to the requirements in 40 CFR 60.4345a must be used to determine the hourly average NO_x emissions. The hourly average for a given operating hour is the average of all data points for the operating hour. However, for any periods during which the NO_x, diluent, flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the hourly average NO_x emissions. All data points that are not collected during out-of-control periods must be used to determine the hourly average NO_x emissions. (40 CFR 60.4350a(b))
- (j)** For each operating hour in which an hourly average is obtained, the data acquisition and handling system must calculate and record the hourly average NO_x emissions in units of lb/MMBtu or lbs, as applicable, using the appropriate equation from EPA Method 19 in Appendix A-7 to Part 60. For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO₂ concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations. (40 CFR 60.4350a(c))
- (k)** Data used to meet the requirements of Subpart KKKKa shall not include substitute data values derived from the missing data procedures of Part 75 of Chapter I, nor shall the data be bias adjusted according to the procedures of Part 75. For units complying with the 12-calendar-month mass-based standard, emissions for hours of missing data shall be estimated by using the average emissions rate of non-out-of-control hours within ±10 percent of the hour of missing data within the 12-calendar-month period. If non-out-of-control data is not available, the maximum hourly emissions rate during the 12-calendar-month period shall be used. (40 CFR 60.4350a(d))
- (l)** All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages. However, for any periods during which the flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the appropriate hourly average value. (40 CFR 60.4350a(e))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(m) Calculate the hourly average NOx emissions rate, in units of the emissions standard under 40 CFR 60.4320a, using lb/MMBtu or ppm for units complying with the input-based standard, using lbs for units complying with the mass-based standard, or lb/MWh or kg/MWh for units complying with the output-based standard: (40 CFR 60.4350a(f))

(i) The gross or net energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine engine; the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generating unit; the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MWh, minus the auxiliary load as calculated using Equations 1 and 2 below: (40 CFR 60.4350a(f)(1))

P = ((Pe)t / T) + ((Pe)c / T) - PeA + Ps + Po (Eq. 1)

Where:

P = Gross or net energy output of the stationary combustion turbine system in MWh;

(Pe)t = Electrical or mechanical energy output of the combustion turbine engine in MWh;

(Pe)c = Electrical or mechanical energy output (if any) of the steam turbine in MWh;

PeA = Electric energy used for any auxiliary loads in MWh (only applicable to owners/operators electing to demonstrate compliance on a net output basis);

Ps = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;

Po = Other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the stationary combustion turbine; and

T = Electric Transmission and Distribution Factor. Equal to 0.95 for CHP combustion turbine where at least 20.0 percent of the total gross useful energy output consists of electric or direct mechanical output and 20.0 percent of the total gross useful energy output consists of useful thermal output on an annual basis. Equal to 1.0 for all other combustion turbines.

Ps = (Qm x H) / (3.413 x 10^6 Btu/MWh) (Eq. 2)

Where:

Ps = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;

Qm = Measured steam flow in lb;

H = Enthalpy of the steam at measured temperature and pressure relative to ISO conditions, in Btu/lb; and

3.413 x 10^6 = Conversion factor from Btu to MWh.



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(n) For each stationary combustion turbine demonstrating compliance on a heat input-based emissions standard, excess NOx emissions are determined on a 4-operating-hour averaging period basis using the NOx CEMS data and procedures specified in 40 CFR 60.4350a(g)(1) and (2) as applicable to the NOx emissions standard in Table 1 to Subpart KKKKa. (40 CFR 60.4350a(g))

(i) For each 4-operating-hour period, compute the 4-operating-hour rolling average NOx emissions as the heat input weighted average of the hourly average of NOx emissions for a given operating hour and the 3 operating hours preceding that operating hour using the applicable equation in 40 CFR 60.4350a(g)(2). Calculate a 4-operating-hour rolling average NOx emissions rate for any 4-operating-hour period with a valid CEMS data for at least 3 of those hours (e.g., a valid 4-operating-hour rolling average NOx emissions rate cannot be calculated if 1 or more continuous monitors was out-of-control for the entire hour for more than 1 hour during the 4-operating-hour period). (40 CFR 60.4350a(g)(1))

(ii) If the Permittee elects to comply with the applicable heat input-based emissions rate standard, calculate both the 4-operating-hour rolling average NOx emissions rate and the applicable 4-operating-hour rolling average NOx emissions standard, calculated using hourly values in Table 1 to Subpart KKKKa, using Equation 4 to 40 CFR 60.4350a(g)(2). (40 CFR 60.4350a(g)(2))

E = (sum from i=1 to 4 of (Ei x Qi)) / (sum from i=1 to 4 of Qi) (Eq. 4)

Where:

E = 4-operating-hour rolling average NOx emissions (lb/MMBtu or ng/J);

Ei = Hourly average NOx emissions rate or emissions standard for operating hour "i" (lb/MMBtu or ng/J); and

Qi = Total heat input to stationary combustion turbine for operating hour "i" (MMBtu or J as appropriate).

(o) For each combustion turbine demonstrating compliance on an output-based standard, the Permittee must determine excess emissions on a 30-operating-day rolling average basis. The measured emissions rate is the NOx emissions measured by the CEMS for a given operating day and the 29 operating days preceding that day. Once each day, calculate a new 30-operating-day average measured emissions rate using all hourly average values based on non-out-of-control NOx emission data for all operating hours during the previous 30-operating-day operating period. Report any 30-operating-day periods for which have less than 90 percent data availability as monitor downtime. If the Permittee elects to comply with the applicable output-based emissions rate standard, calculate the measured emissions rate using Equation 5 40 CFR 4350a(h)(1) and calculate the applicable emissions standard using Equation 6 to 40 CFR 4350a(h)(1). If the Permittee elects to comply with the applicable output-based emissions rate standard and determine the heat input on an hourly basis, calculate the 30-operating-day rolling average NOx emissions rate using Equation 5, and determine the applicable 30-operating-day rolling average NOx emissions standard, calculated using values in Table 1 to Subpart KKKKa, using Equation 6. Hours are not subcategorized by load for the purposes of determining the applicable output-based standard. The emissions standard for all hours, regardless of load, is the otherwise applicable full load emissions standard. (40 CFR 60.4350a(h)(1))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(o) (40 CFR 60.4350a(h)(1) (continued)

E = (sum from i=1 to n of (E_i * Q_i)) / (sum from i=1 to n of P_i) (Eq. 5)

Where:

- E = 30-operating-day average NOx measured emissions rate combustion turbines (lb/MWh or ng/J);
E_i = Hourly average NOx emissions rate or emissions standard for non-out-of-control operating hour "i" (lb/MMBtu or ng/J);
Q_i = Total heat input to stationary combustion turbine for non-out-of-control operating hour "i" (MMBtu or J as appropriate);
P_i = Total gross or net energy output from stationary combustion turbine for non-out-of-control operating hour "i" (MWh or J); and
n = Total number of operating non-out-of-control hours in the 30-operating-day period.

E = E_NG * (E_NG / H_T) + E_non-NG * (H_non-NG / H_T) (Eq. 6)

Where:

- E = 30-operating-day rolling NOx emissions standard (lb/MWh or kg/MWh);
E_NG = 30-operating-day emissions standard for natural gas-fired combustion turbines (lb/MWh or kg/MWh);
E_non-NG = 30-operating-day emissions standard for non-natural gas-fired combustion turbines (lb/MWh or kg/MWh);
H_NG = Hours of operation combusting natural gas during the 30-operating-day period;
H_non-NG = Hours of operation combusting non-natural gas fuels during the 30-operating-day period; and
H_T = Total hours of operation during the 30-operating-day period.

- (p) If the Permittee elects to comply with the applicable output-based emissions rate standard and elect to not determine the heat input on an hourly basis, the applicable 30-operating-day emissions rolling NOx standard is the most stringent standard applicable to the combustion turbine. The 30-operating-day rolling NOx emissions rate is determined as the sum of the hourly emissions divided by the sum of the gross or net output over the 30-operating-day period. (40 CFR 60.4350a(h)(2))
(q) If the Permittee elects to demonstrate compliance with a SO2 emissions standard according to 40 CFR Part 60.4333a(d)(3), the Permittee must maintain on-site records (such as a current, valid purchase contract, tariff sheet, or transportation contract) documenting that total sulfur content for the fuel combusted in the stationary combustion turbine at all times does not exceed a potential SO2 emissions rate of 26 ng/J (0.060 lb/MMBtu) heat input. (40 CFR 60.4372a(a), 40 CFR 60.4372a(b))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting

(a) The notification requirements of 40 CFR 60.8 apply to the initial and subsequent performance tests. (40 CFR 60.4375a(b))

(b) Within 60 days after the date of completing each performance test or continuous emissions monitoring systems (CEMS) performance evaluation that includes a relative accuracy test audit (RATA), the Permittee must submit the results following the procedures specified in 40 CFR 60.4375a(g). The Permittee must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) accompanied by the other information required by 40 CFR 60.8(f)(2) in PDF format. (40 CFR 60.4375a(e))

(c) The Permittee must submit to the Administrator semiannual reports of the following recorded information. Beginning on January 15, 2027, or once the report template for Subpart KKKKa has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in 40 CFR 60.4375a(g). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. (40 CFR 60.4375a(f))

(d) The Permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information claimed as CBI. Although we do not expect persons to assert a claim of CBI, if the Permittee wishes to assert a CBI claim for some of the information in the report or notification, the Permittee must submit a complete file in the format specified in Subpart KKKKa, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4375a(g)(1) and (2). Clearly mark the part or all of the information that claims to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. The Permittee must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in 40 CFR 60.4375a(g). (40 CFR 60.4375a(g))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

(c) The Permittee may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the Permittee must meet the requirements outlined in 40 CFR 60.4375a(h)(1) through (7). (40 CFR 60.4375(a)(h))

(i) The Permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems. (40 CFR 60.4375a(h)(1))

(ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due. (40 CFR 60.4375a(h)(2))

(iii) The outage may be planned or unplanned. (40 CFR 60.4375a(h)(3))

(iv) The Permittee must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 60.4375a(h)(4))

(v) The Permittee must provide to the Administrator a written description identifying: (40 CFR 60.4375a(h)(5)(i) through (iv))

(A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(C) A description of measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 60.4375a(h)(6))

(vii) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. (40 CFR 60.4375a(h)(7))

(f) If the Permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the Permittee may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined in 40 CFR 60.4375a(i)(1) through (5). (40 CFR 60.4375a(i))

(i) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the Permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). (40 CFR 60.4375a(i)(1))

(ii) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 60.4375a(i)(2))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

(f) If the Permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the Permittee may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined below. (40 CFR 60.4375a(i)) (continued)

(iii) You must provide to the Administrator: (40 CFR 60.4375a(i)(3)(i) through (iv))

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) A description of measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which the Permittee propose to report, or if the Permittee have already met the reporting requirement at the time of the notification, the date you reported.

(iv) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 60.4375a(i)(4))

(v) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs. (40 CFR 60.4375a(i)(5))

(g) Any records required to be maintained by Subpart KKKKs that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. 40 CFR 60.4375a(j))

(h) For reports required under 40 CFR Part 60.4375a(a), periods of excess emissions and monitor downtime for stationary combustion turbines using a CEMS, excess emissions are reported as specified in 40 CFR Parts 60.4375a(b)(1) and (2). (40 CFR 60.4380a(b))

(i) An excess emission that must be reported is any unit operating period in which the 4-operating-hour average NO_x emissions rate, 30-operating-day rolling average NO_x emissions rate, 4-hour mass-based emissions rate, or the 12-calendar-month mass-based emissions rate exceeds the applicable emissions standard in 40 CFR Part 60.4320a as determined in 40 CFR Part 60.4350a. (40 CFR 60.4380a(b)(1))

(ii) A period of monitor downtime that must be reported is any operating hour in which the data for any of the following parameters that you use to calculate the emission rate, as applicable, used to determine compliance, are either missing or out-of-control: NO_x concentration, CO₂ or O₂ concentration, stack flow rate, heat input rate, steam flow rate, steam temperature, steam pressure, or megawatts. The Permittee is only required to monitor parameters used for compliance purposes. (40 CFR 60.4380a(b)(2))

(i) For reports required under 40 CFR 60.4375a(a), periods of excess emissions and monitor downtime for stationary combustion turbines using combustion parameters or parameters that document proper operation of the NO_x emission controls excess emissions and monitor downtime are reported as specified in 40 CFR 60.4380a(c)(1) and (2). (40 CFR 60.4380a(c))

(i) Excess emissions that must be reported are each 4-operating-hour rolling average in which any monitored parameter (as averaged over the 4-operating-hour period) does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit. (40 CFR 60.4380a(c)(1))

(ii) Periods of monitor downtime that must be reported are each operating hour in which any of the required parametric data that are used to calculate the emission rate, as applicable, used to determine compliance, are either not recorded or are out-of-control. (40 CFR 60.4380a(c)(2))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

- (j) If the Permittee chooses the option to maintain records of the fuel sulfur content, excess emissions are defined as any period during which the Permittee combust a fuel that the Permittee does not have appropriate fuel records or that fuel contains sulfur greater than the applicable standard. (40 CFR 60.4385a(b))
- (k) The Permittee must maintain records of information used to demonstrate compliance with Subpart KKKKa as specified in 40 CFR 60.7. (40 CFR 60.4390a(a))
- (l) The Permittee that uses part-load, or low temperature NO_x standards in the compliance demonstration must maintain concurrent records of the hourly heat input, percent load, ambient temperature, and emissions data as applicable. (40 CFR 60.4390a(b))
- (m) The Permittee that demonstrates compliance using the output-based standard must maintain concurrent records of the total gross or net energy output and emissions data. (40 CFR 60.4390a(d))
- (n) The Permittee complying with the fuel-based SO₂ standard must maintain records of the results of all fuel analyses or a current, valid purchase contract, tariff sheet, or transportation contract. (40 CFR 60.4390a(f))
- (o) Consistent with 40 CFR Part 60.7(c), all reports required under 40 CFR Part 60.7(c) must be electronically submitted via CEDRI by the 30th day following the end of each 6-month period. (40 CFR 60.4395a)

(5) Performance Tests

- (a) If the Permittee uses a CEMS, the performance test must be performed according to the procedures specified in 40 CFR Part 60.4405a(b). (40 CFR 60.4405a(a))
- (b) The initial performance test must use the procedure specified in 40 CFR Parts 60.4405a(b)(1) through (4). (40 CFR 60.4405a(b))
 - (i) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within ±25 percent of 100 percent of the base load rating while the source is combusting the fuel that is a normal primary fuel for that source. The Permittee may perform testing at the highest achievable load point, if at least 75 percent of the base load rating cannot be achieved in practice. The ambient temperature must be greater than 0 °F during the RATA runs. The Administrator or delegated authority may approve performance testing below 0 °F if the timing of the required performance test and environmental conditions make it impractical to test at ambient conditions greater than 0 °F. (40 CFR 60.4405a(b)(1))
 - (ii) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) or the methodologies in Appendix F to Part 75 of Chapter I, and for units complying with the output-based standard, measure the electrical and thermal output from the unit. (40 CFR 60.4405a(b)(2))
 - (iii) Use the test data both to demonstrate compliance with the applicable NO_x emissions standard under 40 CFR Part 60.4320a and to provide the required reference method data for the RATA of the CEMS described under 40 CFR Part 60.4342a. (40 CFR 60.4405a(b)(3))
 - (iv) Compliance with the applicable emissions standard in 40 CFR Part 60.4320a is achieved if the sum of the NO_x emissions divided by the heat input (or gross or net energy output) for all the RATA runs, expressed in units of lb/MMBtu, ppm, lb/MWh, or kgs, does not exceed the emissions standard. (40 CFR 60.4405a(b)(4))
- (c) The Permittee complying with the fuel-based standard must submit fuel records (such as a current, valid purchase contract, tariff sheet, transportation contract, or results of a fuel analysis) to satisfy the requirements of 40 CFR Part 60.8. (40 CFR 60.4415a(a))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

b. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart TTTTt – Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fire Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units

(1) Emission standards

(a) For base load combustion turbines:

(i) For 12-operating month averages beginning before January 2032, the Permittee must not discharge any gases that contain CO₂ in excess of 360 to 560 kg CO₂/MWh (800 to 1,250 lb CO₂/MWh) of gross energy output; or 370 to 570 kg CO₂/MWh (820 to 1,280 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(ii) For 12-operating month average beginning after December 2031, the Permittee must not discharge any gases that contain CO₂ in excess of 43 to 67 kg CO₂/MWh (100 to 150 lb CO₂/MWh) of gross energy output; or 42 to 64 kg CO₂/MWh (97 to 139 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(b) For intermediate load combustion turbines: the Permittee must not discharge any gases that contain CO₂ in excess of 530 to 710 kg CO₂/MWh (1,170 to 1,560 lb CO₂/MWh) of gross energy output; or 540 to 700 kg CO₂/MWh (1,190 to 1,590 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(c) For low-load combustion turbines: the Permittee must not discharge any gasses that contain CO₂ in excess of 50 to 69 kg CO₂/GJ (120 to 160 lb CO₂/MMBtu) of heat input. (40 CFR 60.5520a(a), Table 1)

(2) Notification, reports, and Records

(a) The Permittee must prepare and submit the notifications specified in 40 CFR 60.7(a)(1) and (3) and 60.19, as applicable to the affected EGU(s) (see table 3 to Subpart TTTTt). (40 CFR 60.5550a(a))

(b) The Permittee must prepare and submit notifications specified in 40 CFR 75.61, as applicable, to the affected EGUs. (40 CFR 60.5550a(b))

(c) The Permittee must meet all applicable reporting requirements and submit reports as required under Subpart G of Part 75 of Chapter I. (40 CFR 60.5555a(c)(1))

(d) The Permittee must begin submitting the quarterly electronic emissions reports described in paragraph (c)(1) of 40 CFR 60.5555a in accordance with 40 CFR 75.64(a), i.e., beginning with data recorded on and after the earlier of: (40 CFR 60.5555a(c)(3)(i)(A) and (B))

(i) The date of provisional certification, as defined in 40 CFR 75.20(a)(3); or

(ii) 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2).



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

b. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart TTTTt – Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fire Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units (continued)

(2) Notification, reports, and Records (continued)

(e) Reports shall be submitted by: (40 CFR 60.5555a(d)(1) through (3))

(i) The person appointed as the Designated Representative (DR) under 40 CFR 72.20; or

(ii) The person appointed as the Alternate Designated Representative (ADR) under 40 CFR 72.22; or

(iii) A person (or persons) authorized by the DR or ADR under 40 CFR 72.26 to make the required submissions.

(f) The Permittee must maintain records of the information used to demonstrate compliance with Subpart TTTTt as specified in 40 CFR 60.7(b) and (f). (40 CFR 60.5560a(a))

(g) The Permittee must follow the applicable recordkeeping requirements and maintain records as required under Subpart F of Part 75 of Chapter I. (40 CFR 60.5560a(b)(1))

(h) Records must be in a form suitable and readily available for expeditious review. (40 CFR 60.5565a(a))

(i) The Permittee must maintain each record for 5 years after the date of conclusion of each compliance period. (40 CFR 60.5565a(b))

(j) The Permittee must maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The Permittee may maintain the records off site for the remaining year(s) as required by Subpart TTTTt. (40 CFR 60.5565a(c))

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines

(1) Emission and Operating Limits

(a) The Permittee must comply with the **formaldehyde** emission limit concentration to 91 ppbvd or less at 15-percent O₂, except during turbine startup. The period of time for turbine startup is subject to the definition of startup in 40 CFR 60.6175. (40 CFR 63.6100, Table 1)

(b) The Permittee must maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer. The Permittee is not required to use the catalyst inlet temperature data that is recorded during engine startup in the calculations of the 4-hour rolling average catalyst inlet temperature. (40 CFR 63.6100, Table 2)

(2) General Compliance Requirements

At all times, the Permittee must 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 the Permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements 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. (40 CFR 63.6105(c))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Testing and Initial Compliance

(a) The Permittee must conduct the initial performance tests or other initial compliance demonstrations in Table 4 of Subpart YYYY that apply within 180 calendar days after the compliance date that is specified for the stationary combustion turbine in 40 CFR 63.6095 and according to the provisions in 40 CFR 63.7(a)(2). (40 CFR 63.6110(a))

(i) For the emission limitation for formaldehyde, the Permittee have demonstrated initial compliance if the average formaldehyde concentration meets the emission limitations specified in Table 1. (40 CFR 63.6110(a), Table 4))

(b) Subsequent performance tests must be performed on an annual basis. (40 CFR 63.6110(a), Table 3)

(i) Demonstrate formaldehyde emissions meet the emission limitations specified in Table 1 by a performance test initially and on an annual basis using Test Method 320 of 40 CFR Part 63, Appendix A; ASTM D6348-12e1 provided that the test plan preparation and implementation provisions of Annexes A1 through A8 are followed and the %R as determined in Annex A5 is equal or greater than 70% and less than or equal to 130%; 2 or other methods approved by the Administrator

(A) Formaldehyde concentration must be corrected to 15-percent O₂, dry basis. Results of this test consist of the average of the three 1-hour runs. Test must be conducted within 10 percent of 100-percent load.

(ii) Select the sampling port location and the number of traverse points using Method 1 or 1A of 40 CFR Part 60, Appendix A.

(A) The sampling site must be located at the outlet of the air pollution control device.

(iii) Determine the O₂ concentration at the sampling port location using Method 3A or 3B of 40 CFR Part 60, Appendix A; ANSI/ASME PTC 19.10-1981 1 (Part 10) manual portion only; ASTM D6522-11 1 if the turbine is fueled by natural gas.

(A) Measurements to determine O₂ concentration must be made at the same time as the performance test.

(iv) Determine the moisture content at the sampling port location for the purposes of correcting the formaldehyde concentration to a dry basis using Method 4 of 40 CFR Part 60, Appendix A or Test Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-12e1.

(c) Performance tests must be conducted at high load, defined as 100 percent plus or minus 10 percent. Performance tests shall be conducted under such conditions based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The Permittee may not conduct performance tests during periods of malfunction. The Permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.6110(c))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Testing and Initial Compliance (continued)

- (d) The Permittee must conduct three separate test runs for each performance test, and each test run must last at least 1 hour. (40 CFR 63.6110(d))
- (e) The Permittee must monitor on a continuous basis your catalyst inlet temperature in order to comply with the operating limitations in Table 2 and as specified in Table 5 of Subpart YYYY. (40 CFR 63.6125(a))
- (f) The Permittee must demonstrate initial compliance with each emission and operating limitation that applies according to Table 4 of Subpart YYYY. (40 CFR 63.6130(a))
- (g) The Permittee must submit the Notification of Compliance Status containing results of the initial compliance demonstration according to the requirements in 40 CFR 63.6145(f). (40 CFR 63.6130(b))

(4) Continuous Compliance

- (a) Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), the Permittee must conduct all parametric monitoring at all times the stationary combustion turbine is operating. (40 CFR 63.6135(a))
- (b) Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of Subpart YYYY, including data averages and calculations. The Permittee must use all the data collected during all other periods in assessing the performance of the control device or in assessing emissions from the new or reconstructed stationary combustion turbine. (40 CFR 63.6135(b))
- (c) The Permittee must continuously monitor the inlet temperature to the catalyst and maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer. (40 CFR 63.6140(a), Table 5))
- (d) The Permittee must report each instance in which the combustion turbine did not meet each emission limitation or operating limitation. The Permittee must also report each instance in which the combustion turbine did not meet the requirements in Table 7 of Subpart YYYY that applies. These instances are deviations from the emission and operating limitations in Subpart YYYY. These deviations must be reported according to the requirements in 40 CFR 63.6150. (40 CFR 63.6140(b))

(5) Notifications

- (a) The Permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), 63.8(f)(4), and 63.9(b) and (h) that apply by the dates specified. (40 CFR 63.6145(a))
- (b) The Permittee must submit an Initial Notification not later than 120 calendar days after becoming subject to Subpart YYYY. (40 CFR 63.1645(c))
- (c) The Permittee must submit a notification of intent to conduct an initial performance test at least 60 calendar days before the initial performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). (40 CFR 63.1645(e))
- (d) The Permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test. (40 CFR 63.1645(f))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting

(a) The Permittee must submit a semiannual compliance report. The semiannual compliance report must contain the information described in paragraphs (a)(1) through (5) of 40 CFR 63.6150. The semiannual compliance report, including the excess emissions and monitoring system performance reports of 40 CFR 63.10(e)(3), must be submitted by the dates specified in paragraphs (b)(1) through (5) of 40 CFR 63.6150, unless the Administrator has approved a different schedule. After September 8, 2020, or once the reporting template has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 180 days, whichever date is later, the Permittee must submit all subsequent reports to the EPA following the procedure specified in paragraph (g) of 40 CFR 63.6150. (40 CFR 63.6150(a), Table 6))

(i) Company name and address. (40 CFR 63.6150(a)(1))

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. (40 CFR 63.6150(a)(2))

(iii) Date of report and beginning and ending dates of the reporting period. (40 CFR 63.6150(a)(3))

(iv) Report each deviation in the semiannual compliance report. (40 CFR 63.6150(a)(5)(i) through (iv))

(A) Report the number of deviations. For each instance, report the start date, start time, duration, and cause of each deviation, and the corrective action taken.

(B) For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions.

(C) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks), as applicable, and the corrective action taken.

(D) Report the total operating time of the affected source during the reporting period.

(b) Dates of submittal for the semiannual compliance report below: (40 CFR 63.6150(b))

(i) The first semiannual compliance report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in 40 CFR 63.6095. (40 CFR 63.6150(b)(1))

(ii) The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6095. (40 CFR 63.6150(b)(2))

(iii) Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. (40 CFR 63.6150(b)(3))

(iv) Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. (40 CFR 63.6150(b)(4))

(v) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section. (40 CFR 63.6150(b)(5))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

(c) Dates of submittal for the annual report are below: (40 CFR 63.6150(d))

(i) The first annual report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on December 31. (40 CFR 63.6150(d)(1))

(ii) The first annual report must be postmarked or delivered no later than January 31. (40 CFR 63.6150(d)(2))

(iii) Each subsequent annual report must cover the annual reporting period from January 1 through December 31. (40 CFR 63.6150(d)(3))

(iv) Each subsequent annual report must be postmarked or delivered no later than January 31. (40 CFR 63.6150(d)(4))

(v) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (d)(1) through (4) of 40 CFR 63.6150. (40 CFR 63.6150(d)(5))

(d) Performance test report. The Permittee must submit the results of the performance test (as specified in 40 CFR 63.6145(f)) following the procedures specified below. (40 CFR 63.6150(f))

(i) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test. Submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. (40 CFR 63.6150(f)(1))

(ii) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. (40 CFR 63.6150(f)(2))

(iii) Confidential business information (CBI). If Permittee claim some of the information submitted under paragraph (f)(1) of 40 CFR 63.6150 is CBI, the Permittee must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (f)(1) of 40 CFR 63.6150. (40 CFR 63.6150(f)(3))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

(e) The Permittee must submit reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The Permittee must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for Subpart YYYY. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If Permittee claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. (40 CFR 63.6150(g))

(f) The Permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, the Permittee must meet the requirements outlined in paragraphs (h)(1) through (7) of 40 CFR 63.6150. (40 CFR 63.6150(h))

(i) The Permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems. (40 CFR 63.6150(h)(1))

(ii) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due. (40 CFR 63.6150(h)(2))

(iii) The outage may be planned or unplanned. (40 CFR 63.6150(h)(3))

(iv) The Permittee must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 63.6150(h)(4))

(v) The Permittee must provide to the Administrator a written description identifying: ((40 CFR 63.6150(h)(5)(i) through (iv))

(A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(C) Measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to report, or have already met the reporting requirement at the time of the notification, the date reported.

(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 63.6150(h)(6))

(vii) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. (40 CFR 63.6150(h)(7))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

(g) The Permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined in paragraphs (i)(1) through (5) of this section. (40 CFR 63.6150(i))

(i) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the Permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). (40 CFR 63.6150(i)(1))

(ii) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 63.6150(i)(2))

(iii) The Permittee must provide to the Administrator: (40 CFR 63.6150(i)(3)(i) through (iv))

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) Measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to report, or have already met the reporting requirement at the time of the notification, the date reported.

(iv) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 63.6150(i)(4))

(v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. (40 CFR 63.6150(i)(5))

(7) Recordkeeping

(a) The Permittee must keep the records as described below. (40 CFR 63.6155(a))

(i) A copy of each notification and report that you submitted to comply with Subpart YYYYY, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). (40 CFR 63.6155(a)(1))

(ii) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). (40 CFR 63.6155(a)(2))

(iii) Records of all maintenance on the air pollution control equipment as required in 40 CFR 63.10(b)(2)(iii). (40 CFR 63.6155(a)(5))

(iv) Records of the date, time, and duration of each startup period, recording the periods when the affected source was subject to the standard applicable to startup. (40 CFR 63.6155(a)(6))

(v) Record the number of deviations. For each deviation, record the date, time, cause, and duration of the deviation. (40 CFR 63.6155(a)(7)(i))

(vi) For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. (40 CFR 63.6155(a)(7)(ii))

(vii) Record actions taken to minimize emissions in accordance with 40 CFR 63.6105(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. (40 CFR 63.6155(a)(7)(iii))



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Section VI. Specific Operating Conditions (continued)

AH. Emission Unit S2.038 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(7) Recordkeeping (continued)

- (b)** The Permittee must keep the records required in Table 5 of Subpart YYYY to show continuous compliance with each operating limitation that applies. (40 CFR 63.6155(c))
- (c)** Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. (40 CFR 63.6155(d))
- (d)** The Permittee must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1). (40 CFR 63.6160(a))
- (e)** As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.6160(b))
- (f)** The Permittee must retain records of the most recent 2 years on site or records must be accessible on site. Records of the remaining 3 years may be retained off site. (40 CFR 63.6160(c))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039

System 21 – Unit #4 Combustion Turbine (General Electric) (ADDED XX/2026, Air Case 12313)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.039	Unit #4 Combustion Turbine (Manufactured by General Electric; Model F7.FA; commence construction 2026; Max Heat Input 2,153 MMBtu/hr)	4,525,520	487,589

1. Air Pollution Control Equipment (NAC 445B.3405)

- a. Emissions from S2.039 shall be controlled by the following:
 - (1) **Dry Low-NO_x Burners** for the control of oxides of nitrogen (NO_x).
 - (2) **A Selective Catalytic Reduction (SCR)** system for the control of oxides of nitrogen (NO_x).
 - (3) **An Oxidation Catalyst** system for the control of carbon monoxide (CO) and volatile organic compounds (VOC).
 - (4) **The SCR and Oxidation Catalyst, each, shall be maintained at a temperature range identified by the manufacturer.**
 - (5) **The SCR shall utilize urea/ammonia injection into the SCR at a volume specified by the manufacturer.**
- b. **Descriptive Stack Parameters**
 Stack Height: 130.0 feet
 Stack Diameter: 26.0 feet
 Stack Temperature: 1,205.0 °F
 Exhaust Flow: 963,490.0 dry standard cubic feet per minute (dscfm)

2. Operating Parameters (NAC 445B.3405)

- a. S2.039 may consume only **pipeline quality natural gas**.
- b. The maximum allowable fuel consumption rate for S2.039 shall not exceed **2,266,736.8 standard cubic feet (scf) per hour, averaged over a calendar day, nor more than 19,671,241,824.6 standard cubic feet (scf) per 12-month rolling period.**
- c. The sulfur content shall not exceed **0.50 grains per 100 scf.**
- d. S2.039 shall not exceed **250 start-up events** per year. Each start-up shall not exceed **30 minutes** per event.
- e. S2.039 shall not exceed **250 shutdown events** per year. Each shutdown shall not exceed **15 minutes** per event.
- f. **“Steady-state operation”** shall be defined as the period during which S2.039 has reached a stable load at or near its design capacity, consistent with normal operating conditions. The **SCR and Oxidation Catalyst** shall be fully engaged and functioning as intended during this period.
- g. A **“start-up event”** shall be defined as the period of time from when fuel is first fired to when the load has been achieved at which it has been demonstrated (by a Continuous Emissions Monitoring System or during compliance source testing) that the emission limits under AI.3. of this section can be met during steady-state operation (i.e. the Minimum Emissions Compliance Load). The **SCR and Oxidation Catalyst** will not be fully functional during start-up events.
- h. A **“shutdown event”** shall be defined as the period of time from the Minimum Emissions Compliance Load to when firing of fuel has ceased. The **SCR and Oxidation Catalyst** will be fully functional during shutdown events.
- i. **“Testing/tuning”** shall be defined as planned operation outside of normal emissions limitations for the purposes of data collection, diagnostics, or operational adjustment.
- j. **Hours**
 - (1) S2.039 may operate a total of **24 hours per day.**
 - (2) S2.039 and S2.038 (under System 20), combined, shall not exceed **300 hours per year of testing/tuning periods.** The **SCR and Oxidation Catalyst** will not be fully functional during testing/tuning periods.



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.3405) (continued)

- a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.039 the following pollutants in excess of the following specified limits during **steady-state operations**:
- (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (3) The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **15.4** pounds per hour.
 - (4) Best Available Control Technology (BACT) Emission Limit – The discharge of **Total PM** (including both filterable and condensable particulate matter) to the atmosphere shall not exceed **0.0076** pounds per MMBtu “High Heat Value” (HHV) or **15.4** pounds per hour.
 - (5) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **3.38** pounds per hour.
 - (6) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed:
 - (a) **23.8** pounds per hour.
 - (b) BACT Emission Limit – **2.90** parts per million by volume (corrected to 15% O₂), per 4-hour rolling average.
 - (7) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **19.5** pounds per hour.
 - (8) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **10.0** pounds per hour.
 - (9) The discharge of **H₂SO₄** (sulfuric acid mist) to the atmosphere shall not exceed **2.28** pounds per hour.
 - (10) NAC 445B.22017 – The opacity from the exhaust stack of S2.039 shall not equal or exceed **20** percent.
 - (11) NAC 445B.2203 – The maximum allowable discharge of **PM₁₀** to the atmosphere from S2.039 shall not exceed **0.17** pounds per MMBtu.
 - (11) BACT Emission Limit (Greenhouse Gases) – The discharge of **CO₂** (carbon dioxide) to the atmosphere shall not exceed:
 - (a) **251,900.0** pounds per hour, or
 - (b) **53.06** kilograms per MMBtu (high heating value)
- b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.039 the following pollutants in excess of the following specified limits during **steady-state operations, start-up events, shutdown events, and testing/tuning periods**:
- (1) The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (2) The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (3) The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **64.2** tons per 12-month rolling period.
 - (4) Best Available Control Technology (BACT) Emission Limit – The discharge of **Total PM** (including both filterable and condensable particulate matter) to the atmosphere shall not exceed **0.0076** pounds per MMBtu “High Heat Value” (HHV).
 - (5) The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **13.9** tons per 12-month rolling period.
 - (6) The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed:
 - (a) **112.3** tons per 12-month rolling period.
 - (8) The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **161.1** tons per 12-month rolling period.
 - (9) The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed:
 - (a) **49.3** tons per 12-month rolling period.
 - (b) BACT Emission Limit – **2.00** parts per million by volume (corrected to 15% O₂).



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

3. Emission Limits (NAC 445B.305, NAC 445B.3405) (continued)

b. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.039 the following pollutants in excess of the following specified limits during **steady-state operations, start-up events, shutdown events, and testing/tuning periods** (continued):

(10) The discharge of H₂SO₄ (sulfuric acid mist) to the atmosphere shall not exceed:

(a) 9.41 tons per 12-month rolling period.

(b) BACT Emission Limit – 0.0011 pounds per MMBtu.

(11) NAC 445B.22017 – The opacity from the exhaust stack of S2.039 shall not equal or exceed 20 percent.

(12) NAC 445B.2203 – The maximum allowable discharge of PM₁₀ to the atmosphere from S2.039 shall not exceed 0.17 pounds per MMBtu.

(13) BACT Emission Limit (Greenhouse Gases) – The discharge of CO₂ (carbon dioxide) to the atmosphere shall not exceed 1,037,600.0 tons per year.

c. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.039 the following pollutants in excess of the following specified limits during **start-up events, shutdown events, and testing/tuning periods**:

(1) The discharge of NO_x (oxides of nitrogen) to the atmosphere shall not exceed 96.0 parts per million (corrected to 15% O₂), per 4-hour rolling average.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

a. **Natural Gas**

(1) Install, calibrate, operate, and maintain a fuel flow meter to continuously record the quantity (in scf) of the **pipeline quality natural gas** for each calendar day for S2.039.

(2) Monitor and record the consumption rate of **pipeline quality natural gas** for each calendar day for S2.039 (in scf) by use of a fuel flow meter.

(3) Record the corresponding average hourly consumption rate of **pipeline quality natural gas** in scf per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.

(4) Record the consumption rate of **pipeline quality natural gas**, in scf, on a cumulative monthly basis, for each 12-month rolling period.

(5) The Permittee shall maintain and keep on site documentation demonstrating that the fuel combusted under AI.2.a. of this section complies with the sulfur content under AI.2.c. of this section.

b. **SCR**

(1) Install, calibrate, operate, and maintain a temperature gauge to continuously record the temperature (in Fahrenheit or Celsius) of the **SCR** exhaust. The gauge shall be installed at a location recommended by the manufacturer.

(2) Install, calibrate, operate, and maintain a flow indicator to continuously record the urea/ammonia sent to the **SCR** catalyst bed.

(3) Monitor and record the **SCR** temperature and urea/ammonia injection volume values as determined by the manufacturer by use of a temperature gauge and flow indicator, respectively.

(4) The Permittee shall keep on site the manufacturer's documentation containing the normal operating temperature and urea/ammonia injection parameters for the **SCR**.



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

b. SCR (continued)

(5) Configure, operate, and maintain the SCR monitoring computer systems and engine computer systems for S2.039 to:

- (a) Automatically record and alert if the temperature is not within the manufacturer's specifications as required to achieve manufacturer's guaranteed emission reductions for the SCR system using the gauge required in AI.4.e. of this section.
- (b) Automatically record and alert if the urea/ammonia injection is not within manufacturer's specifications or the range established during the most recent tuning procedure, as required to achieve manufacturer's guaranteed emission reductions for the SCR system using the flow indicator required in AI.4.f. of this section.
- (c) Should either the temperature alarm or urea/ammonia alarm be activated, the Permittee shall investigate the alarm within 1 hour from the time the alarm notice began and record the alarm event within 24 hours. Record of the alarm event shall include the corresponding alert message, cause of the alarm, date, time, and course of remediation.

(6) Conduct and record an observation of visible emissions (excluding water vapor) on the exhaust stack of S2.039 (post-controls) on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall conduct and record a Method 9 visible emission test. Each Method 9 visible emission test shall be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly visible emissions, and any corrective actions taken.

(7) Inspect the SCR on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual to confirm that the SCR is functioning properly. If the SCR is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the SCR is functioning properly.

c. Hours

- (1) Monitor and record the hours of operation for S2.039 for each calendar day.
- (2) Monitor and record the start time and end time of each **start-up event**, as well as the corresponding duration (in minutes) per event. The number of start-up events shall be recorded on a monthly basis.
- (3) Monitor and record the start time and end time of each **shutdown event**, as well as the corresponding duration (in minutes) per event. The number of shutdown events shall be recorded on a monthly basis.
- (4) Monitor and record the duration (in hours) of each **testing/tuning period** and the corresponding annual hours of testing/tuning for the calendar year.



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (continued)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate. (continued)

d. Oxidation Catalyst

(1) The Permittee shall keep on site the manufacturer's documentation containing the normal operating temperature for the **Oxidation Catalyst**.

(2) Inspect the **Oxidation Catalyst** on a **monthly** basis in accordance with the manufacturer's operation and maintenance manual to confirm that the **Oxidation Catalyst** is functioning properly. If the **Oxidation Catalyst** is in disrepair, the Permittee shall perform corrective action within 24 hours to ensure that the **Oxidation Catalyst** is functioning properly.

e. Determine the gross calorific value (GCV) of **pipeline quality natural gas** consumed by **S2.039** in conformance with 40 CFR Part 75 Appendix D requirements.

f. Using the most recent performance tests, as specified above, the Permittee shall calculate the following emission factors, based on the average of 3 test runs:

(1) Pounds of PM per scf (lbs-PM/scf) of Pipeline Quality Natural Gas, or pounds of PM per MMBtu (lbs-PM/MMBtu) of Pipeline Quality Natural Gas.

(2) Pounds of PM₁₀ per scf (lbs-PM₁₀/scf) of Pipeline Quality Natural Gas, or pounds of PM₁₀ per MMBtu (lbs-PM₁₀/MMBtu) of Pipeline Quality Natural Gas.

(3) Pounds of CO per scf (lbs-CO/scf) of Pipeline Quality Natural Gas, or pounds of CO per MMBtu (lbs-CO/MMBtu) of Pipeline Quality Natural Gas.

(4) Pounds of VOC per scf (lbs-VOC/scf) of Pipeline Quality Natural Gas, or pounds of VOC per MMBtu (lbs-VOC/MMBtu) of Pipeline Quality Natural Gas.

g. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

5. Performance and Compliance Testing (NAC 445B.3405, (NAC 445B.252(1))

The Permittee, upon issuance of this operating permit, shall conduct and record annual performance testing within 90 days of the anniversary date of the previous initial performance testing or annual performance testing, and annually thereafter, in accordance with the following:

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.S. Testing and Sampling (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
- b. Testing shall be conducted on the exhaust stack (post controls).
- c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM₁₀ and PM_{2.5} emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
- e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM_{2.5} for determination of compliance.
- f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
- g. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
- h. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements

a. **New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines**

(1) **Emission Limits (40 CFR 60.4315a)**

(a) The Permittee must not discharge into the atmosphere any gases that contain an amount of NO_x that exceeds the applicable emissions standard and be in accordance with the requirements specified in 40 CFR 60.4320a(b). If the Permittee chooses to use NO_x CEMS, input-based emission rates and standards are determined on a 4-operating-hour rolling basis and output-based emission rates and standards are determined on a 30-operating-day rolling basis. Mass-based emission rates are determined on both a 4-operating-hour and 12-calendar-month rolling basis. (40 CFR 60.4320a(a))

(i) The Permittee shall not exceed the following NO_x emission limits (40 CFR Part 60.4320a(a), Table 1):

Combustion Turbine Type	Combustion Turbine Base Load Rated Heat Input (HHV)	Input-Based NO _x Emission Standard ¹	Optional Output-Based NO _x Standard ²
New, firing natural gas with utilization rate >45 percent	>850 MMBtu/hr	5 ppm at 15 percent O ₂ or 7.9 ng/J (0.018 lb/MMBtu)	0.054 kg/MWh-gross (0.12 lb/MWh-gross) 0.055 kg/MWh-net (0.12 lb/MWh-net)
New, firing natural gas with utilization rate ≤45 percent and with design efficiency <38 percent	>850 MMBtu/hr	9 ppm at 15 percent O ₂ or 14 ng/J (0.033 lb/MMBtu)	0.17 kg/MWh-gross (0.37 lb/MWh-gross) 0.17 kg/MWh-net (0.38 lb/MWh-net)
Located north of the Arctic Circle (latitude 66.5 degrees north), operating at ambient temperatures less than 0 °F (-18 °C), modified or reconstructed offshore turbines, operated during periods of turbine tuning, byproduct-fired turbines, and/or operating at less than 70 percent of the base load rating	>300 MMBtu/h	96 ppm at 15 percent O ₂ or 150 ng/J (0.35 lb/MMBtu)	N/A

¹Input-based standards are determined on a 4-operating-hour rolling average bases.

²Output-based standards are determined on a 30-operating-day average basis.

(b) The applicable NO_x emission standards shall be determined on an operating-hour basis, unless the Permittee elects to use the alternative provided for in 40 CFR Part 60.4320a(b)(2). Determining the hourly NO_x emission standards requires recording hourly data and maintaining records according to the requirements in 40 CFR Part 60.4390a. For hours with multiple emission standards, the applicable standard for that hour is determined based on the condition, excluding periods of monitor downtime, that corresponds to the highest emissions standard. (40 CFR 60.4320a(b)(1))

(c) As an alternative to the requirements specified in 40 CFR Part 4320a(b)(1), the Permittee may elect to use the lowest NO_x emission standard that is applicable, as determined using table 1 to 40 CFR Part 60 Subpart KKKKa, for the entire required compliance period. (40 CFR 60.4320a(b)(2))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(1) Emission Limits (40 CFR 60.4315a) (continued)

(d) During each operating hour when only natural gas is combusted, the Permittee must meet the NO_x emission standard as determined by the applicable size category in Table 1 to 40 CFR Part 60 Subpart KKKKa, as applicable, which corresponds to a stationary combustion turbine firing natural gas for that operating hour. (40 CFR 60.4320a(b)(3))

(e) The Permittee must meet the applicable NO_x emissions standard to the affected facility during all times that the affected facility is operating (including periods of startup, shutdown, and malfunction). (40 CFR 60.4320a(d))

(f) For each new, modified, or reconstructed stationary combustion turbine, the Permittee must not cause to be discharged from the affected facility and into the atmosphere any gases that contain an amount of SO₂ exceeding either (40 CFR 60.4330a(a)):

(i) **110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh))** gross energy output (40 CFR 60.4330a(a)(1)); or

(ii) **26 ng SO₂/J (0.060 lb SO₂/MMBtu)** heat input. (40 CFR 60.4330a(a)(2))

(2) General Compliance Requirements (40 CFR 60.4333a)

(a) The Permittee must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction. (40 CFR 60.4333a(a))

(b) The Permittee must conduct an initial performance test according to 40 CFR Part 60.8 using the applicable methods in 40 CFR Parts 60.4400a or 60.4405a. (40 CFR 60.4333a(b))

(c) The Permittee must demonstrate continuous compliance using a continuous emissions monitoring system (CEMS) for measuring NO_x emissions according to the provisions in 40 CFR Part 60.4345a. If the Permittee's stationary combustion turbine is equipped with a NO_x CEMS, those measurements must be used to determine excess emissions. (40 CFR 60.4333a(c))

(i) If the stationary combustion turbine does not use water injection, steam injection, or post-combustion controls to meet the applicable NO_x emissions standard in 40 CFR 60.4320a, the Permittee may elect to demonstrate continuous compliance with an input-based standard according to the provisions in 40 CFR 60.4340a. (40 CFR 60.4333a(c)(2))

(d) The Permittee subject to an SO₂ standard in 40 CFR 60.4330a(a) must demonstrate compliance by conducting an initial performance test according to 40 CFR 60.8 and use the applicable methods in 40 CFR 60.4415a. Thereafter, maintain records (such as a current, valid purchase contract, tariff sheet, or transportation contract) documenting that total sulfur content for the initial and subsequent fuel combusted in the stationary combustion turbine at all times does not exceed applicable conditions specified in 40 CFR 60.4370a. (40 CFR 60.4333a(d)(3))

(e) If the Permittee elects to comply with the mass-based standard, the Permittee must demonstrate continuous compliance using either a CEMS for measuring NO_x emissions according to the provisions in 40 CFR 60.4345a or using the methodology in Appendix E to Part 75 of Chapter I. (40 CFR 60.4333a(g))

(3) Monitoring

(a) Each CEMS measuring NO_x emissions used to meet the requirements of Subpart KKKKa, must meet the following requirements: (40 CFR 60.4345a(a))

(i) The Permittee must install, certify, maintain, and operate a NO_x monitor to determine the hourly average NO_x emissions in the units of the standard with which the Permittee is complying. (40 CFR 60.4345a(a)(1))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(a) Each CEMS measuring NO_x emissions used to meet the requirements of Subpart KKKKa, must meet the following requirements: (40 CFR 60.4345a(a)) (continued)

(ii) If the Permittee elects to comply with an input-based emissions standard, the Permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. (40 CFR 60.4345a(a)(2))

(iii) If the Permittee elects to comply with an output-based emissions standard, the Permittee must also install, calibrate, maintain, and operate both a watt meter (or meters) to continuously measure the gross electrical output from the affected facility and either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor. (40 CFR 60.4345a(a)(3))

(iv) If the Permittee elects to comply with the part-load NO_x emissions standard, the Permittee must install, calibrate, maintain, and operate either a fuel flow meter (or flow meters) or an O₂ or CO₂ CEMS and a stack flow monitor to continuously measure the heat input to the affected facility. (40 CFR 60.4345a(a)(4))

(b) Each NO_x CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to Part 60. The span value must be 125 percent of the highest applicable standard or highest anticipated hourly NO_x emissions rate. Alternatively, span values determined according to Section 2.1.2 in Appendix A to Part 75 may be used. For stationary combustion turbines that do not use post-combustion technology to reduce emissions of NO_x to comply with the requirements of 40 CFR Part 60 Subpart KKKKa, the Permittee may use NO_x and diluent CEMS that are installed and certified according to Appendix A to Part 75 in lieu of Procedure 1 in Appendix F to Part 60 and the requirements of 40.CFR Part 60.13, except that the relative accuracy test audit (RATA) of the CEMS must be performed on a lb/MMBtu basis. For stationary combustion turbines that use post-combustion technology to reduce emissions of NO_x to comply with the requirements of 40 CFR Part 60 Subpart KKKKa, the Permittee may use NO_x and diluent CEMS that are installed and certified according to Appendix A to Part 75 in lieu of Procedure 1 in Appendix F to Part 60 and the requirements of 40 CFR Part 60.13 with approval from the Administrator or delegated authority, except that the relative accuracy test audit (RATA) of the CEMS must be performed on a lb/MMBtu basis. (40 CFR 60.4345a(b))

(c) During each full operating hour, both the NO_x monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour. For partial operating hours, at least one data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two data points (one in each of two quadrants) are required for each monitor. (40 CFR 60.4345a(c))

(d) Each fuel flow meter must be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, fuel flow meters that meet the installation, certification, and quality assurance requirements in Appendix D to Part 75 of Chapter I are acceptable for use under 40 CFR Part 60 Subpart KKKKa. (40 CFR 60.4345a(d))

(e) Each watt meter, steam flow meter, and each pressure or temperature measurement device must be installed, calibrated, maintained, and operated according to manufacturer's instructions. (40 CFR 60.4345a(e))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

- (f)** The Permittee must develop, submit to the Administrator or delegated authority for approval, maintain, and adhere to an on-site quality assurance (QA) plan for all of the continuous monitoring equipment the Permittee uses to comply with 40 CFR Part 60 Subpart KKKKa. At a minimum, such a QA plan must address the requirements of 40 CFR Part 60.13(d), (e), and (h). For the CEMS and fuel flow meters, the Permittee that does not use post-combustion technology to reduce emissions of NO_x to comply with the requirements of Subpart KKKKa may, with approval of the Administrator or delegated authority, satisfy the requirements of this 40 CFR 60.4345a(f) by implementing the QA program and plan described in Section 1 in Appendix B to Part 75 of Chapter I in lieu of the requirements in 40 CFR 60.13(d)(1). (40 CFR 60.4345a(f))
- (g)** At a minimum, non-out-of-control CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-operating-day rolling average basis. (40 CFR 60.4345a(g))
- (h)** If the Permittee demonstrates continuous compliance using a CEMS for measuring NO_x emissions, excess emissions are defined as the applicable compliance period for the stationary combustion turbine (either 4-operating-hours, 30-operating-days, or 12-calendar-month), during which the average NO_x emissions measured by the CEMS is greater than the applicable maximum allowable NO_x emissions standard specified in 40 CFR 60.4320a as determined using the procedures specified 40 CFR 60.4350a that apply to the stationary combustion turbine. (40 CFR 60.4350a(a))
- (i)** The NO_x CEMS data for each operating hour as measured according to the requirements in 40 CFR 60.4345a must be used to determine the hourly average NO_x emissions. The hourly average for a given operating hour is the average of all data points for the operating hour. However, for any periods during which the NO_x, diluent, flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the hourly average NO_x emissions. All data points that are not collected during out-of-control periods must be used to determine the hourly average NO_x emissions. (40 CFR 60.4350a(b))
- (j)** For each operating hour in which an hourly average is obtained, the data acquisition and handling system must calculate and record the hourly average NO_x emissions in units of lb/MMBtu or lbs, as applicable, using the appropriate equation from EPA Method 19 in Appendix A-7 to Part 60. For any hour in which the hourly average O₂ concentration exceeds 19.0 percent O₂ (or the hourly average CO₂ concentration is less than 1.0 percent CO₂), a diluent cap value of 19.0 percent O₂ or 1.0 percent CO₂ (as applicable) may be used in the emission calculations. (40 CFR 60.4350a(c))
- (k)** Data used to meet the requirements of Subpart KKKKa shall not include substitute data values derived from the missing data procedures of Part 75 of Chapter I, nor shall the data be bias adjusted according to the procedures of Part 75. For units complying with the 12-calendar-month mass-based standard, emissions for hours of missing data shall be estimated by using the average emissions rate of non-out-of-control hours within ±10 percent of the hour of missing data within the 12-calendar-month period. If non-out-of-control data is not available, the maximum hourly emissions rate during the 12-calendar-month period shall be used. (40 CFR 60.4350a(d))
- (l)** All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages. However, for any periods during which the flow, watt, steam pressure, or steam temperature monitors (as applicable) are out-of-control, the data points are not used in determining the appropriate hourly average value. (40 CFR 60.4350a(e))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(m) Calculate the hourly average NOx emissions rate, in units of the emissions standard under 40 CFR 60.4320a, using lb/MMBtu or ppm for units complying with the input-based standard, using lbs for units complying with the mass-based standard, or lb/MWh or kg/MWh for units complying with the output-based standard: (40 CFR 60.4350a(f))

(i) The gross or net energy output is calculated as the sum of the total electrical and mechanical energy generated by the combustion turbine engine; the additional electrical or mechanical energy (if any) generated by the steam turbine following the heat recovery steam generating unit; the total useful thermal energy output that is not used to generate additional electricity or mechanical output, expressed in equivalent MWh, minus the auxiliary load as calculated using Equations 1 and 2 below: (40 CFR 60.4350a(f)(1))

P = ((Pe)t / T) + ((Pe)c / T) - PeA + Ps + Po (Eq. 1)

Where:

P = Gross or net energy output of the stationary combustion turbine system in MWh;

(Pe)t = Electrical or mechanical energy output of the combustion turbine engine in MWh;

(Pe)c = Electrical or mechanical energy output (if any) of the steam turbine in MWh;

PeA = Electric energy used for any auxiliary loads in MWh (only applicable to owners/operators electing to demonstrate compliance on a net output basis);

Ps = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;

Po = Other useful heat recovery, measured relative to ISO conditions, not used for steam generation or performance enhancement of the stationary combustion turbine; and

T = Electric Transmission and Distribution Factor. Equal to 0.95 for CHP combustion turbine where at least 20.0 percent of the total gross useful energy output consists of electric or direct mechanical output and 20.0 percent of the total gross useful energy output consists of useful thermal output on an annual basis. Equal to 1.0 for all other combustion turbines.

Ps = (Qm x H) / (3.413 x 10^6 Btu/MWh) (Eq. 2)

Where:

Ps = Useful thermal energy of the steam, measured relative to ISO conditions, not used to generate additional electric or mechanical output, in MWh;

Qm = Measured steam flow in lb;

H = Enthalpy of the steam at measured temperature and pressure relative to ISO conditions, in Btu/lb; and

3.413 x 10^6 = Conversion factor from Btu to MWh.



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(n) For each stationary combustion turbine demonstrating compliance on a heat input-based emissions standard, excess NOx emissions are determined on a 4-operating-hour averaging period basis using the NOx CEMS data and procedures specified in 40 CFR 60.4350a(g)(1) and (2) as applicable to the NOx emissions standard in Table 1 to Subpart KKKKa. (40 CFR 60.4350a(g))

(i) For each 4-operating-hour period, compute the 4-operating-hour rolling average NOx emissions as the heat input weighted average of the hourly average of NOx emissions for a given operating hour and the 3 operating hours preceding that operating hour using the applicable equation in 40 CFR 60.4350a(g)(2). Calculate a 4-operating-hour rolling average NOx emissions rate for any 4-operating-hour period with a valid CEMS data for at least 3 of those hours (e.g., a valid 4-operating-hour rolling average NOx emissions rate cannot be calculated if 1 or more continuous monitors was out-of-control for the entire hour for more than 1 hour during the 4-operating-hour period). (40 CFR 60.4350a(g)(1))

(ii) If the Permittee elects to comply with the applicable heat input-based emissions rate standard, calculate both the 4-operating-hour rolling average NOx emissions rate and the applicable 4-operating-hour rolling average NOx emissions standard, calculated using hourly values in Table 1 to Subpart KKKKa, using Equation 4 to 40 CFR 60.4350a(g)(2). (40 CFR 60.4350a(g)(2))

E = (sum from i=1 to 4 of (Ei x Qi)) / (sum from i=1 to 4 of Qi) (Eq. 4)

Where:

E = 4-operating-hour rolling average NOx emissions (lb/MMBtu or ng/J);

Ei = Hourly average NOx emissions rate or emissions standard for operating hour "i" (lb/MMBtu or ng/J); and

Qi = Total heat input to stationary combustion turbine for operating hour "i" (MMBtu or J as appropriate).

(o) For each combustion turbine demonstrating compliance on an output-based standard, the Permittee must determine excess emissions on a 30-operating-day rolling average basis. The measured emissions rate is the NOx emissions measured by the CEMS for a given operating day and the 29 operating days preceding that day. Once each day, calculate a new 30-operating-day average measured emissions rate using all hourly average values based on non-out-of-control NOx emission data for all operating hours during the previous 30-operating-day operating period. Report any 30-operating-day periods for which have less than 90 percent data availability as monitor downtime. If the Permittee elects to comply with the applicable output-based emissions rate standard, calculate the measured emissions rate using Equation 5 40 CFR 4350a(h)(1) and calculate the applicable emissions standard using Equation 6 to 40 CFR 4350a(h)(1). If the Permittee elects to comply with the applicable output-based emissions rate standard and determine the heat input on an hourly basis, calculate the 30-operating-day rolling average NOx emissions rate using Equation 5, and determine the applicable 30-operating-day rolling average NOx emissions standard, calculated using values in Table 1 to Subpart KKKKa, using Equation 6. Hours are not subcategorized by load for the purposes of determining the applicable output-based standard. The emissions standard for all hours, regardless of load, is the otherwise applicable full load emissions standard. (40 CFR 60.4350a(h)(1))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Monitoring (continued)

(o) (40 CFR 60.4350a(h)(1) (continued)

E = (sum from i=1 to n of (E_i * Q_i)) / (sum from i=1 to n of P_i) (Eq. 5)

Where:

E = 30-operating-day average NOx measured emissions rate combustion turbines (lb/MWh or ng/J);

E_i = Hourly average NOx emissions rate or emissions standard for non-out-of-control operating hour "i" (lb/MMBtu or ng/J);

Q_i = Total heat input to stationary combustion turbine for non-out-of-control operating hour "i" (MMBtu or J as appropriate);

P_i = Total gross or net energy output from stationary combustion turbine for non-out-of-control operating hour "i" (MWh or J); and

n = Total number of operating non-out-of-control hours in the 30-operating-day period.

E = E_NG * (E_NG / H_T) + E_non-NG * (H_non-NG / H_T) (Eq. 6)

Where:

E = 30-operating-day rolling NOx emissions standard (lb/MWh or kg/MWh);

E_NG = 30-operating-day emissions standard for natural gas-fired combustion turbines (lb/MWh or kg/MWh);

E_non-NG = 30-operating-day emissions standard for non-natural gas-fired combustion turbines (lb/MWh or kg/MWh);

H_NG = Hours of operation combusting natural gas during the 30-operating-day period;

H_non-NG = Hours of operation combusting non-natural gas fuels during the 30-operating-day period; and

H_T = Total hours of operation during the 30-operating-day period.

(p) If the Permittee elects to comply with the applicable output-based emissions rate standard and elect to not determine the heat input on an hourly basis, the applicable 30-operating-day emissions rolling NOx standard is the most stringent standard applicable to the combustion turbine. The 30-operating-day rolling NOx emissions rate is determined as the sum of the hourly emissions divided by the sum of the gross or net output over the 30-operating-day period. (40 CFR 60.4350a(h)(2)

(q) If the Permittee elects to demonstrate compliance with a SO2 emissions standard according to 40 CFR Part 60.4333a(d)(3), the Permittee must maintain on-site records (such as a current, valid purchase contract, tariff sheet, or transportation contract) documenting that total sulfur content for the fuel combusted in the stationary combustion turbine at all times does not exceed a potential SO2 emissions rate of 26 ng/J (0.060 lb/MMBtu) heat input. (40 CFR 60.4372a(a), 40 CFR 60.4372a(b))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting

- (a)** The notification requirements of 40 CFR 60.8 apply to the initial and subsequent performance tests. (40 CFR 60.4375a(b))
- (b)** Within 60 days after the date of completing each performance test or continuous emissions monitoring systems (CEMS) performance evaluation that includes a relative accuracy test audit (RATA), the Permittee must submit the results following the procedures specified in 40 CFR 60.4375a(g). The Permittee must submit the report in a file format generated using the EPA's Electronic Reporting Tool (ERT). Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) accompanied by the other information required by 40 CFR 60.8(f)(2) in PDF format. (40 CFR 60.4375a(e))
- (c)** The Permittee must submit to the Administrator semiannual reports of the following recorded information. Beginning on January 15, 2027, or once the report template for Subpart KKKKa has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for one year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in 40 CFR 60.4375a(g). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated State agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. (40 CFR 60.4375a(f))
- (d)** The Permittee must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information claimed as CBI. Although we do not expect persons to assert a claim of CBI, if the Permittee wishes to assert a CBI claim for some of the information in the report or notification, the Permittee must submit a complete file in the format specified in Subpart KKKKa, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4375a(g)(1) and (2). Clearly mark the part or all of the information that claims to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. The Permittee must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in 40 CFR 60.4375a(g). (40 CFR 60.4375a(g))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

(e) The Permittee may assert a claim of EPA system outage for failure to timely comply with that reporting requirement. To assert a claim of EPA system outage, the Permittee must meet the requirements outlined in 40 CFR 60.4375a(h)(1) through (7). (40 CFR 60.4375(a)(h))

(i) The Permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems. (40 CFR 60.4375a(h)(1))

(ii) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due. (40 CFR 60.4375a(h)(2))

(iii) The outage may be planned or unplanned. (40 CFR 60.4375a(h)(3))

(iv) The Permittee must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 60.4375a(h)(4))

(v) The Permittee must provide to the Administrator a written description identifying: (40 CFR 60.4375a(h)(5)(i) through (iv))

(A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(C) A description of measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 60.4375a(h)(6))

(vii) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. (40 CFR 60.4375a(h)(7))

(f) If the Permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the Permittee may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined in 40 CFR 60.4375a(i)(1) through (5). (40 CFR 60.4375a(i))

(i) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the Permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). (40 CFR 60.4375a(i)(1))

(ii) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 60.4375a(i)(2))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

(f) If the Permittee is required to electronically submit a report through CEDRI in the EPA's CDX, the Permittee may assert a claim of force majeure for failure to timely comply with that reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined below. (40 CFR 60.4375a(i)) (continued)

(iii) You must provide to the Administrator: (40 CFR 60.4375a(i)(3)(i) through (iv))

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) A description of measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which the Permittee propose to report, or if the Permittee have already met the reporting requirement at the time of the notification, the date you reported.

(iv) The decision to accept the claim of *force majeure* and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 60.4375a(i)(4))

(v) In any circumstance, the reporting must occur as soon as possible after the *force majeure* event occurs. (40 CFR 60.4375a(i)(5))

(g) Any records required to be maintained by Subpart KKKKs that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. 40 CFR 60.4375a(j))

(h) For reports required under 40 CFR Part 60.4375a(a), periods of excess emissions and monitor downtime for stationary combustion turbines using a CEMS, excess emissions are reported as specified in 40 CFR Parts 60.4375a(b)(1) and (2). (40 CFR 60.4380a(b))

(i) An excess emission that must be reported is any unit operating period in which the 4-operating-hour average NO_x emissions rate, 30-operating-day rolling average NO_x emissions rate, 4-hour mass-based emissions rate, or the 12-calendar-month mass-based emissions rate exceeds the applicable emissions standard in 40 CFR Part 60.4320a as determined in 40 CFR Part 60.4350a. (40 CFR 60.4380a(b)(1))

(ii) A period of monitor downtime that must be reported is any operating hour in which the data for any of the following parameters that you use to calculate the emission rate, as applicable, used to determine compliance, are either missing or out-of-control: NO_x concentration, CO₂ or O₂ concentration, stack flow rate, heat input rate, steam flow rate, steam temperature, steam pressure, or megawatts. The Permittee is only required to monitor parameters used for compliance purposes. (40 CFR 60.4380a(b)(2))

(i) For reports required under 40 CFR 60.4375a(a), periods of excess emissions and monitor downtime for stationary combustion turbines using combustion parameters or parameters that document proper operation of the NO_x emission controls excess emissions and monitor downtime are reported as specified in 40 CFR 60.4380a(c)(1) and (2). (40 CFR 60.4380a(c))

(i) Excess emissions that must be reported are each 4-operating-hour rolling average in which any monitored parameter (as averaged over the 4-operating-hour period) does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit. (40 CFR 60.4380a(c)(1))

(ii) Periods of monitor downtime that must be reported are each operating hour in which any of the required parametric data that are used to calculate the emission rate, as applicable, used to determine compliance, are either not recorded or are out-of-control. (40 CFR 60.4380a(c)(2))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

a. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart KKKKa – Standards of Performance for Stationary Combustion Turbines (continued)

(4) Reporting (continued)

- (j) If the Permittee chooses the option to maintain records of the fuel sulfur content, excess emissions are defined as any period during which the Permittee combust a fuel that the Permittee does not have appropriate fuel records or that fuel contains sulfur greater than the applicable standard. (40 CFR 60.4385a(b))
- (k) The Permittee must maintain records of information used to demonstrate compliance with Subpart KKKKa as specified in 40 CFR 60.7. (40 CFR 60.4390a(a))
- (l) The Permittee that uses part-load, or low temperature NO_x standards in the compliance demonstration must maintain concurrent records of the hourly heat input, percent load, ambient temperature, and emissions data as applicable. (40 CFR 60.4390a(b))
- (m) The Permittee that demonstrates compliance using the output-based standard must maintain concurrent records of the total gross or net energy output and emissions data. (40 CFR 60.4390a(d))
- (n) The Permittee complying with the fuel-based SO₂ standard must maintain records of the results of all fuel analyses or a current, valid purchase contract, tariff sheet, or transportation contract. (40 CFR 60.4390a(f))
- (o) Consistent with 40 CFR Part 60.7(c), all reports required under 40 CFR Part 60.7(c) must be electronically submitted via CEDRI by the 30th day following the end of each 6-month period. (40 CFR 60.4395a)

(5) Performance Tests

- (a) If the Permittee uses a CEMS, the performance test must be performed according to the procedures specified in 40 CFR Part 60.4405a(b). (40 CFR 60.4405a(a))
- (b) The initial performance test must use the procedure specified in 40 CFR Parts 60.4405a(b)(1) through (4). (40 CFR 60.4405a(b))
 - (i) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level, within ±25 percent of 100 percent of the base load rating while the source is combusting the fuel that is a normal primary fuel for that source. The Permittee may perform testing at the highest achievable load point, if at least 75 percent of the base load rating cannot be achieved in practice. The ambient temperature must be greater than 0 °F during the RATA runs. The Administrator or delegated authority may approve performance testing below 0 °F if the timing of the required performance test and environmental conditions make it impractical to test at ambient conditions greater than 0 °F. (40 CFR 60.4405a(b)(1))
 - (ii) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) or the methodologies in Appendix F to Part 75 of Chapter I, and for units complying with the output-based standard, measure the electrical and thermal output from the unit. (40 CFR 60.4405a(b)(2))
 - (iii) Use the test data both to demonstrate compliance with the applicable NO_x emissions standard under 40 CFR Part 60.4320a and to provide the required reference method data for the RATA of the CEMS described under 40 CFR Part 60.4342a. (40 CFR 60.4405a(b)(3))
 - (iv) Compliance with the applicable emissions standard in 40 CFR Part 60.4320a is achieved if the sum of the NO_x emissions divided by the heat input (or gross or net energy output) for all the RATA runs, expressed in units of lb/MMBtu, ppm, lb/MWh, or kgs, does not exceed the emissions standard. (40 CFR 60.4405a(b)(4))
- (c) The Permittee complying with the fuel-based standard must submit fuel records (such as a current, valid purchase contract, tariff sheet, transportation contract, or results of a fuel analysis) to satisfy the requirements of 40 CFR Part 60.8. (40 CFR 60.4415a(a))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

b. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart TTTTt – Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fire Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units

(1) Emission standards

(a) For base load combustion turbines:

(i) For 12-operating month averages beginning before January 2032, the Permittee must not discharge any gases that contain CO₂ in excess of 360 to 560 kg CO₂/MWh (800 to 1,250 lb CO₂/MWh) of gross energy output; or 370 to 570 kg CO₂/MWh (820 to 1,280 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(ii) For 12-operating month average beginning after December 2031, the Permittee must not discharge any gases that contain CO₂ in excess of 43 to 67 kg CO₂/MWh (100 to 150 lb CO₂/MWh) of gross energy output; or 42 to 64 kg CO₂/MWh (97 to 139 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(b) For intermediate load combustion turbines: the Permittee must not discharge any gases that contain CO₂ in excess of 530 to 710 kg CO₂/MWh (1,170 to 1,560 lb CO₂/MWh) of gross energy output; or 540 to 700 kg CO₂/MWh (1,190 to 1,590 lb CO₂/MWh) of net energy output. (40 CFR 60.5520a(a), Table 1)

(c) For low-load combustion turbines: the Permittee must not discharge any gasses that contain CO₂ in excess of 50 to 69 kg CO₂/GJ (120 to 160 lb CO₂/MMBtu) of heat input. (40 CFR 60.5520a(a), Table 1)

(2) Notification, reports, and Records

(a) The Permittee must prepare and submit the notifications specified in 40 CFR 60.7(a)(1) and (3) and 60.19, as applicable to the affected EGU(s) (see table 3 to Subpart TTTTt). (40 CFR 60.5550a(a))

(b) The Permittee must prepare and submit notifications specified in 40 CFR 75.61, as applicable, to the affected EGUs. (40 CFR 60.5550a(b))

(c) The Permittee must meet all applicable reporting requirements and submit reports as required under Subpart G of Part 75 of Chapter I. (40 CFR 60.5555a(c)(1))

(d) The Permittee must begin submitting the quarterly electronic emissions reports described in paragraph (c)(1) of 40 CFR 60.5555a in accordance with 40 CFR 75.64(a), i.e., beginning with data recorded on and after the earlier of: (40 CFR 60.5555a(c)(3)(i)(A) and (B))

(i) The date of provisional certification, as defined in 40 CFR 75.20(a)(3); or

(ii) 180 days after the date on which the EGU commences commercial operation (as defined in 40 CFR 72.2).



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

b. New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart TTTTt – Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fire Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units (continued)

(2) Notification, reports, and Records (continued)

(e) Reports shall be submitted by: (40 CFR 60.5555a(d)(1) through (3))

(i) The person appointed as the Designated Representative (DR) under 40 CFR 72.20; or

(ii) The person appointed as the Alternate Designated Representative (ADR) under 40 CFR 72.22; or

(iii) A person (or persons) authorized by the DR or ADR under 40 CFR 72.26 to make the required submissions.

(f) The Permittee must maintain records of the information used to demonstrate compliance with Subpart TTTTt as specified in 40 CFR 60.7(b) and (f). (40 CFR 60.5560a(a))

(g) The Permittee must follow the applicable recordkeeping requirements and maintain records as required under Subpart F of Part 75 of Chapter I. (40 CFR 60.5560a(b)(1))

(h) Records must be in a form suitable and readily available for expeditious review. (40 CFR 60.5565a(a))

(i) The Permittee must maintain each record for 5 years after the date of conclusion of each compliance period. (40 CFR 60.5565a(b))

(j) The Permittee must maintain each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The Permittee may maintain the records off site for the remaining year(s) as required by Subpart TTTTt. (40 CFR 60.5565a(c))

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines

(1) Emission and Operating Limits

(a) The Permittee must comply with the **formaldehyde** emission limit concentration to 91 ppbvd or less at 15-percent O₂, except during turbine startup. The period of time for turbine startup is subject to the definition of startup in 40 CFR 60.6175. (40 CFR 63.6100, Table 1)

(b) The Permittee must maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer. The Permittee is not required to use the catalyst inlet temperature data that is recorded during engine startup in the calculations of the 4-hour rolling average catalyst inlet temperature. (40 CFR 63.6100, Table 2)

(2) General Compliance Requirements

At all times, the Permittee must 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 the Permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements 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. (40 CFR 63.6105(c))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Testing and Initial Compliance

(a) The Permittee must conduct the initial performance tests or other initial compliance demonstrations in Table 4 of Subpart YYYY that apply within 180 calendar days after the compliance date that is specified for the stationary combustion turbine in 40 CFR 63.6095 and according to the provisions in 40 CFR 63.7(a)(2). (40 CFR 63.6110(a))

(i) For the emission limitation for formaldehyde, the Permittee have demonstrated initial compliance if the average formaldehyde concentration meets the emission limitations specified in Table 1. (40 CFR 63.6110(a), Table 4))

(b) Subsequent performance tests must be performed on an annual basis. (40 CFR 63.6110(a), Table 3)

(i) Demonstrate formaldehyde emissions meet the emission limitations specified in Table 1 by a performance test initially and on an annual basis using Test Method 320 of 40 CFR Part 63, Appendix A; ASTM D6348-12e1 provided that the test plan preparation and implementation provisions of Annexes A1 through A8 are followed and the %R as determined in Annex A5 is equal or greater than 70% and less than or equal to 130%; 2 or other methods approved by the Administrator

(A) Formaldehyde concentration must be corrected to 15-percent O₂, dry basis. Results of this test consist of the average of the three 1-hour runs. Test must be conducted within 10 percent of 100-percent load.

(ii) Select the sampling port location and the number of traverse points using Method 1 or 1A of 40 CFR Part 60, Appendix A.

(A) The sampling site must be located at the outlet of the air pollution control device.

(iii) Determine the O₂ concentration at the sampling port location using Method 3A or 3B of 40 CFR Part 60, Appendix A; ANSI/ASME PTC 19.10-1981 1 (Part 10) manual portion only; ASTM D6522-11 1 if the turbine is fueled by natural gas.

(A) Measurements to determine O₂ concentration must be made at the same time as the performance test.

(iv) Determine the moisture content at the sampling port location for the purposes of correcting the formaldehyde concentration to a dry basis using Method 4 of 40 CFR Part 60, Appendix A or Test Method 320 of 40 CFR Part 63, Appendix A, or ASTM D6348-12e1.

(c) Performance tests must be conducted at high load, defined as 100 percent plus or minus 10 percent. Performance tests shall be conducted under such conditions based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. The Permittee may not conduct performance tests during periods of malfunction. The Permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the Permittee shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.6110(c))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(3) Testing and Initial Compliance (continued)

- (d)** The Permittee must conduct three separate test runs for each performance test, and each test run must last at least 1 hour. (40 CFR 63.6110(d))
- (e)** The Permittee must monitor on a continuous basis your catalyst inlet temperature in order to comply with the operating limitations in Table 2 and as specified in Table 5 of Subpart YYYY. (40 CFR 63.6125(a))
- (f)** The Permittee must demonstrate initial compliance with each emission and operating limitation that applies according to Table 4 of Subpart YYYY. (40 CFR 63.6130(a))
- (g)** The Permittee must submit the Notification of Compliance Status containing results of the initial compliance demonstration according to the requirements in 40 CFR 63.6145(f). (40 CFR 63.6130(b))

(4) Continuous Compliance

- (a)** Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), the Permittee must conduct all parametric monitoring at all times the stationary combustion turbine is operating. (40 CFR 63.6135(a))
- (b)** Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of Subpart YYYY, including data averages and calculations. The Permittee must use all the data collected during all other periods in assessing the performance of the control device or in assessing emissions from the new or reconstructed stationary combustion turbine. (40 CFR 63.6135(b))
- (c)** The Permittee must continuously monitor the inlet temperature to the catalyst and maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer. (40 CFR 63.6140(a), Table 5))
- (d)** The Permittee must report each instance in which the combustion turbine did not meet each emission limitation or operating limitation. The Permittee must also report each instance in which the combustion turbine did not meet the requirements in Table 7 of Subpart YYYY that applies. These instances are deviations from the emission and operating limitations in Subpart YYYY. These deviations must be reported according to the requirements in 40 CFR 63.6150. (40 CFR 63.6140(b))

(5) Notifications

- (a)** The Permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), 63.8(f)(4), and 63.9(b) and (h) that apply by the dates specified. (40 CFR 63.6145(a))
- (b)** The Permittee must submit an Initial Notification not later than 120 calendar days after becoming subject to Subpart YYYY. (40 CFR 63.1645(c))
- (c)** The Permittee must submit a notification of intent to conduct an initial performance test at least 60 calendar days before the initial performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). (40 CFR 63.1645(e))
- (d)** The Permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test. (40 CFR 63.1645(f))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting

(a) The Permittee must submit a semiannual compliance report. The semiannual compliance report must contain the information described in paragraphs (a)(1) through (5) of 40 CFR 63.6150. The semiannual compliance report, including the excess emissions and monitoring system performance reports of 40 CFR 63.10(e)(3), must be submitted by the dates specified in paragraphs (b)(1) through (5) of 40 CFR 63.6150, unless the Administrator has approved a different schedule. After September 8, 2020, or once the reporting template has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website for 180 days, whichever date is later, the Permittee must submit all subsequent reports to the EPA following the procedure specified in paragraph (g) of 40 CFR 63.6150. (40 CFR 63.6150(a), Table 6))

(i) Company name and address. (40 CFR 63.6150(a)(1))

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. (40 CFR 63.6150(a)(2))

(iii) Date of report and beginning and ending dates of the reporting period. (40 CFR 63.6150(a)(3))

(iv) Report each deviation in the semiannual compliance report. (40 CFR 63.6150(a)(5)(i) through (iv))

(A) Report the number of deviations. For each instance, report the start date, start time, duration, and cause of each deviation, and the corrective action taken.

(B) For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions.

(C) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks), as applicable, and the corrective action taken.

(D) Report the total operating time of the affected source during the reporting period.

(b) Dates of submittal for the semiannual compliance report below: (40 CFR 63.6150(b))

(i) The first semiannual compliance report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date specified in 40 CFR 63.6095. (40 CFR 63.6150(b)(1))

(ii) The first semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified in 40 CFR 63.6095. (40 CFR 63.6150(b)(2))

(iii) Each subsequent semiannual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. (40 CFR 63.6150(b)(3))

(iv) Each subsequent semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. (40 CFR 63.6150(b)(4))

(v) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section. (40 CFR 63.6150(b)(5))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

(c) Dates of submittal for the annual report are below: (40 CFR 63.6150(d))

(i) The first annual report must cover the period beginning on the compliance date specified in 40 CFR 63.6095 and ending on December 31. (40 CFR 63.6150(d)(1))

(ii) The first annual report must be postmarked or delivered no later than January 31. (40 CFR 63.6150(d)(2))

(iii) Each subsequent annual report must cover the annual reporting period from January 1 through December 31. (40 CFR 63.6150(d)(3))

(iv) Each subsequent annual report must be postmarked or delivered no later than January 31. (40 CFR 63.6150(d)(4))

(v) For each stationary combustion turbine that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and if the permitting authority has established the date for submitting annual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), the Permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (d)(1) through (4) of 40 CFR 63.6150. (40 CFR 63.6150(d)(5))

(d) Performance test report. The Permittee must submit the results of the performance test (as specified in 40 CFR 63.6145(f)) following the procedures specified below. (40 CFR 63.6150(f))

(i) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test. Submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. (40 CFR 63.6150(f)(1))

(ii) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI. (40 CFR 63.6150(f)(2))

(iii) Confidential business information (CBI). If Permittee claim some of the information submitted under paragraph (f)(1) of 40 CFR 63.6150 is CBI, the Permittee must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (f)(1) of 40 CFR 63.6150. (40 CFR 63.6150(f)(3))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

- (e) The Permittee must submit reports to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The Permittee must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for Subpart YYYY. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If Permittee claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph. (40 CFR 63.6150(g))
- (f) The Permittee may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, the Permittee must meet the requirements outlined in paragraphs (h)(1) through (7) of 40 CFR 63.6150. (40 CFR 63.6150(h))
 - (i) The Permittee must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems. (40 CFR 63.6150(h)(1))
 - (ii) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due. (40 CFR 63.6150(h)(2))
 - (iii) The outage may be planned or unplanned. (40 CFR 63.6150(h)(3))
 - (iv) The Permittee must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 63.6150(h)(4))
 - (v) The Permittee must provide to the Administrator a written description identifying: ((40 CFR 63.6150(h)(5)(i) through (iv))
 - (A) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
 - (B) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
 - (C) Measures taken or to be taken to minimize the delay in reporting; and
 - (D) The date by which you propose to report, or have already met the reporting requirement at the time of the notification, the date reported.
 - (vi) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 63.6150(h)(6))
 - (vii) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved. (40 CFR 63.6150(h)(7))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(6) Reporting (continued)

(g) The Permittee may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, the Permittee must meet the requirements outlined in paragraphs (i)(1) through (5) of this section. (40 CFR 63.6150(i))

(i) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the Permittee from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage). (40 CFR 63.6150(i)(2))

(ii) The Permittee must submit notification to the Administrator in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting. (40 CFR 63.6150(i)(2))

(iii) The Permittee must provide to the Administrator: (40 CFR 63.6150(i)(3)(i) through (iv))

(A) A written description of the force majeure event;

(B) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(C) Measures taken or to be taken to minimize the delay in reporting; and

(D) The date by which you propose to report, or have already met the reporting requirement at the time of the notification, the date reported.

(iv) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator. (40 CFR 63.6150(i)(4))

(v) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs. (40 CFR 63.6150(i)(5))

(7) Recordkeeping

(a) The Permittee must keep the records as described below. (40 CFR 63.6155(a))

(i) A copy of each notification and report that you submitted to comply with Subpart YYYYY, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). (40 CFR 63.6155(a)(1))

(ii) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). (40 CFR 63.6155(a)(2))

(iii) Records of all maintenance on the air pollution control equipment as required in 40 CFR 63.10(b)(2)(iii). (40 CFR 63.6155(a)(5))

(iv) Records of the date, time, and duration of each startup period, recording the periods when the affected source was subject to the standard applicable to startup. (40 CFR 63.6155(a)(6))

(v) Record the number of deviations. For each deviation, record the date, time, cause, and duration of the deviation. (40 CFR 63.6155(a)(7)(i))

(vi) For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. (40 CFR 63.6155(a)(7)(ii))

(vi) Record actions taken to minimize emissions in accordance with 40 CFR 63.6105(c), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. (40 CFR 63.6155(a)(7)(iii))



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Section VI. Specific Operating Conditions (continued)

AI. Emission Unit S2.039 (continued)

6. Federal Requirements (continued)

c. National Emission Standards for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63 Subpart YYYY – Standards of Performance for Stationary Combustion Turbines (continued)

(7) Recordkeeping (continued)

- (b)** The Permittee must keep the records required in Table 5 of Subpart YYYY to show continuous compliance with each operating limitation that applies. (40 CFR 63.6155(c))
- (c)** Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. (40 CFR 63.6155(d))
- (d)** The Permittee must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1). (40 CFR 63.6160(a))
- (e)** As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (40 CFR 63.6160(b))
- (f)** The Permittee must retain records of the most recent 2 years on site or records must be accessible on site. Records of the remaining 3 years may be retained off site. (40 CFR 63.6160(c))



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Section VI. Specific Operating Conditions (continued)

AJ. Emission Unit S2.040

System 22 – Unit #5 1,750 kWe Emergency Diesel Generator (ADDED XX/2026, Air Case 12313)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.040	Unit #5 Emergency Diesel Generator (engine rated at 2,584 hp; manufactured by Caterpillar; model 3512C; year 2027)	4,525,493	487,678

1. Air Pollution Control Equipment (NAC 445B.3405)

- a. **S2.040** has no add-on controls.
- b. Descriptive Stack Parameters
 Stack Height: 18.0 feet
 Stack Diameter: 1.50 feet
 Stack Temperature: 848.4 °F

2. Operating Parameters (NAC 445B.3405)

- a. **S2.040** may consume only diesel.
- b. The sulfur content shall not exceed **0.0015** percent.
- c. The maximum allowable fuel consumption rate for **S2.040** shall not exceed **121.8** gallons per hour, averaged over a calendar day, nor more than **12,180.0** gallons per 12-month rolling period of non-emergency use.
- d. Hours
 - (1) **S2.040** may operate a total of **24** hours per day.
 - (2) **S2.040** may operate a total of **100** hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.3405)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **S2.040** the following pollutants in excess of the following specified limits:

- a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.85** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
- b. The discharge of **PM₁₀** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.85** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
- c. The discharge of **PM_{2.5}** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.85** pounds per hour, nor more than **0.042** tons per 12-month rolling period.
- d. The discharge of **SO₂** (sulfur dioxide) to the atmosphere shall not exceed **0.026** pounds per hour, nor more than **0.0013** tons per 12-month rolling period.
- e. The discharge of **NO_x** (oxides of nitrogen) to the atmosphere shall not exceed **27.2** pounds per hour, nor more than **1.36** tons per 12-month rolling period.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **14.9** pounds per hour, nor more than **0.74** tons per 12-month rolling period.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **0.68** pounds per hour, nor more than **0.034** tons per 12-month rolling period.
- h. NAC 445B.22017 – The opacity from the **S2.040** shall not equal or exceed **20** percent.
- i. NAC 445B.2203 – The maximum allowable discharge of **PM₁₀** to the atmosphere from **S2.040** shall not exceed **0.53** pounds per MMBtu.
- j. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **S2.040** shall not exceed **11.5** pounds per hour.



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Section VI. Specific Operating Conditions (continued)

AJ. Emission Unit S2.040 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of **diesel** for each calendar day for **S2.040** (in gallons) by multiplying the hourly fuel consumption rate as stated in **AJ.2.c.** of this section and the total daily hours of operation. The corresponding average hourly fuel consumption rate in gallons per hour as provided on the manufacturer's specification, to be kept onsite with records.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. Keep on site, and make available upon request, documentation demonstrating that the sulfur content of the **diesel** consumed in **S2.040** shall not exceed the limit set forth in **AJ.2.b.** of this section.
- d. Monitor and record the total daily hours of operation for **S2.040** for each calendar day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
- e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- f. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

a. Emissions Standards (40 CFR 60.4205)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))

- (1) For a 2007 model year and later Tier 2 non-road engine with a rated power greater than 560 kW: (40 CFR 60.4202(a), 40 CFR 1039 Appendix I)
 - (a) The discharge of PM to the atmosphere shall not exceed **0.20** grams/kW-hr.
 - (b) The discharge of CO to the atmosphere shall not exceed **3.50** grams/kW-hr.
 - (c) The discharge of NO_x to the atmosphere shall not exceed **6.40** gram/kW-hr.
- (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 1039.105(b))
 - (a) 20 percent during acceleration mode;
 - (b) 15 percent during the lugging mode; and
 - (c) 50 percent during the peaks in either the acceleration or lugging modes.

b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.

c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))



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Section VI. Specific Operating Conditions (continued)

AJ. Emission Unit S2.040 (continued)

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)

- (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
- (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068, except as permitted in **AJ.5.d.(5)** of this section. (40 CFR 60.4211(a))
- (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **AJ.5.d.(5)** of this section. (40 CFR 60.4211(c))
- (4) In order for the engine to be considered an emergency stationary ICE under this subpart, 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 paragraphs **AJ.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **AJ.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
 - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
 - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **AJ.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **AJ.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
 - i. Emergency stationary ICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
 - (c) Emergency stationary ICE 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 paragraph **AJ.5.d.(4)(b)** of this section. Except as provided in paragraph **AJ.5.d.(4)(c)** of this section, the 50 hours per calendar 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. (40 CFR 60.4211(f)(3))
 - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



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Section VI. Specific Operating Conditions (continued)

AJ. Emission Unit S2.040 (continued)

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)

(5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))

(a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, 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 must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))

e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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Section VI. Specific Operating Conditions (continued)

AK. Emission Unit S2.041

System 23 – Unit #6 176 HP Emergency Fire Water Pump Engine (ADDED XX/2026, Air Case 12313)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.041	Unit #6 Emergency Diesel Fire Water Pump Engine (176 hp; manufactured by John Deere; model UFAD58; year 2027)	4,525,574	487,663

1. Air Pollution Control Equipment (NAC 445B.3405)

- a. S2.041 has no add-on controls.
- b. Descriptive Stack Parameters
Stack Height: 16.0 feet
Stack Diameter: 0.67 feet
Stack Temperature: 1,020.0 °F

2. Operating Parameters (NAC 445B.3405)

- a. S2.041 may consume only diesel.
- b. The sulfur content shall not exceed 0.0015 percent.
- c. The maximum allowable fuel consumption rate for S2.041 shall not exceed 14.0 gallons per hour, averaged over a calendar day, nor more than 1,400.0 gallons per 12-month rolling period of non-emergency use.
- d. Hours
 - (1) S2.041 may operate a total of 24 hours per day.
 - (2) S2.041 may operate a total of 100 hours per year of non-emergency use. There is no time limit on operation in emergency situations.

3. Emission Limits (NAC 445B.305, NAC 445B.3405)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from S2.041 the following pollutants in excess of the following specified limits:

- a. The discharge of PM (particulate matter) to the atmosphere shall not exceed 0.035 pounds per hour, nor more than 0.0017 tons per 12-month rolling period.
- b. The discharge of PM₁₀ (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed 0.035 pounds per hour, nor more than 0.0017 tons per 12-month rolling period.
- c. The discharge of PM_{2.5} (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed 0.035 pounds per hour, nor more than 0.0017 tons per 12-month rolling period.
- d. The discharge of SO₂ (sulfur dioxide) to the atmosphere shall not exceed 0.0029 pounds per hour, nor more than 0.00015 tons per 12-month rolling period.
- e. The discharge of NO_x (oxides of nitrogen) to the atmosphere shall not exceed 1.09 pounds per hour, nor more than 0.055 tons per 12-month rolling period.
- f. The discharge of CO (carbon monoxide) to the atmosphere shall not exceed 0.35 pounds per hour, nor more than 0.017 tons per 12-month rolling period.
- g. The discharge of VOCs (volatile organic compounds) to the atmosphere shall not exceed 0.035 pounds per hour, nor more than 0.0017 tons per 12-month rolling period.
- h. NAC 445B.22017 – The opacity from the S2.041 shall not equal or exceed 20 percent.
- i. NAC 445B.22047 – The maximum allowable discharge of sulfur to the atmosphere from S2.041 shall not exceed 1.32 pounds per hour.



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Section VI. Specific Operating Conditions (continued)

AK. Emission Unit S2.041 (continued)

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of **diesel** for each calendar day for **S2.041** (in gallons) by use of a fuel flow meter.
- b. Record the corresponding average hourly consumption rate in gallons per hour. The average hourly consumption rate shall be determined from the total daily consumption and the total daily hours of operation.
- c. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- d. Keep on site, and make available upon request, documentation demonstrating that the sulfur content of the **diesel** consumed in **S2.041** shall not exceed the limit set forth in **AK.2.b.** of this section.
- e. Monitor and record the total daily hours of operation for **S2.040** for each calendar day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
- f. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
- g. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))

5. Federal Requirements

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

a. Emissions Standards (40 CFR 60.4202, 40 CFR 60.4205)

The Permittee must comply with the emission standards in Table 4 of 40 CFR Part 60 Subpart III, for all pollutants, for the same model year and National Fire Protection Association (NFPA) maximum engine power. (40 CFR 60.4202(d), 40 CFR 60.4205(c))

(1) For a **2009** model year and later stationary fire pump engine with a maximum engine power of **130 ≤ kW ≤ 225 (175 ≤ hp ≤ 300)** and less than 30 liters per cylinder: (40 CFR 60.4202(d), 40 CFR 4205(c), Table 4)

- (a) The discharge of PM to the atmosphere shall not exceed **0.20** gram/kW-hr (**0.15** gram/hp-hr).
- (b) The discharge of non-methane hydrocarbon (NMHC) + NO_x to the atmosphere shall not exceed **4.00** grams/kW-hr (**3.00** grams/hp-hr).
- (c) The discharge of carbon monoxide (CO) to the atmosphere shall not exceed **3.50** grams/kW-hr (**2.60** gram/hp-hr).

b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 1090.305)

- (1) Sulfur content to be 15 parts per million (ppm) maximum.
- (2) A minimum cetane index of 40; or
- (3) A maximum aromatic content of 35 volume percent.

c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))



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Section VI. Specific Operating Conditions (continued)

AK. Emission Unit S2.041 (continued)

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)

- (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
- (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 1068, except as permitted in **AK.5.d.(5)** of this section. (40 CFR 60.4211(a))
- (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **AK.5.d.(5)** of this section. (40 CFR 60.4211(c))
- (4) In order for the engine to be considered an emergency stationary ICE under this subpart, 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 paragraphs **AK.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **AK.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
 - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
 - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **AK.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **AK.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
 - i. Emergency stationary ICE 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 owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
 - (c) Emergency stationary ICE 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 paragraph **AK.5.d.(4)(b)** of this section. Except as provided in paragraph **AK.5.d.(4)(c)** of this section, the 50 hours per calendar 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. (40 CFR 60.4211(f)(3))
 - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



Bureau of Air Pollution Control

Facility ID No. A0375

Permit No. AP4911-0457.03

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VI. Specific Operating Conditions (continued)

AK. Emission Unit S2.041 (continued)

5. Federal Requirements (continued)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)

d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)

(5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))

(a) For CI ICE greater than or equal to 100 HP and less than or equal to 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, 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 must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. (40 CFR 60.4211(g)(2))

e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

*******End of Specific Operating Conditions*******



CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VII. Continuous Monitoring Systems (CMS) Conditions

A. Continuous Emission Monitoring System (CEMS) Requirements for **S2.001 (Boiler #1) and S2.002 (Boiler #2)**
NAC 445B.3405 (NAC 445B.316)

1. On or before the date of start-up of **S2.001 and S2.002**, the *Permittee* shall install, calibrate, operate and maintain a NO_x, SO₂, and CO₂ (or O₂) continuous emission monitoring system (CEMS) (consisting of a NO_x and SO₂ pollutant concentration monitor and an O₂ or CO₂ diluent gas analyzer) in the exhaust stacks of **S2.001 and S2.002**, each. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of NO_x and SO₂ (in ppmv), NO_x and SO₂ mass emissions (in lb/hr), and O₂ or CO₂ concentrations (in percent O₂ or CO₂) from **S2.001 and S2.002**, each, in accordance with the requirements prescribed in NAC 445B.252 to NAC 445B.267, 40 CFR Part 60, Appendix B, Performance Specifications 2, 3, and 6, and 40 CFR Part 60, Appendix F – Quality Assurance Procedures, applicable Subparts/Sections and Appendices of 40 CFR Part 75, and 40 CFR Part 75 Subpart B §75.12. Verification of the operational status shall, as a minimum, include completion of the manufacturer’s written requirements or recommendations for installation, operation, and calibration of the devices.
2. The NO_x and SO₂ CEMS described in A.1. of this section shall be maintained in accordance with the quality assurance procedures contained in 40 CFR Part 60 Appendix F, NAC 445B.261, and 40 CFR Part 75.21. The zero and span drift of the NO_x and SO₂ CEMS must be checked at least once daily in accordance with the method prescribed by the manufacturer of the systems unless the manufacturer recommends adjustments at shorter intervals, in which case the recommendations must be followed. The zero and span must, as a minimum, be adjusted as specified in the applicable performance specifications in Appendix B of 40 CFR Part 60 and 40 CFR Part 75 are exceeded.
3. On or before the date of start-up of **S2.001 and S2.002**, the *Permittee* shall install, calibrate, operate and maintain a continuous data collection system (CDCS) to accurately and continuously record the NO_x and SO₂ emission rates, based on measured NO_x, SO₂, and O₂ or CO₂ concentrations in the exhaust stacks of **S2.001 and S2.002**, each. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer’s specifications and the requirements prescribed in NAC 445B.252 to NAC 445B.267, 40 CFR Part 60, Appendix B, 40 CFR Part 60, Appendix F – Quality Assurance Procedures, and applicable Subparts/Sections and Appendices of 40 CFR Part 75. Additionally, *Permittee* will record the following parameters:
 - a. The calendar date and time.
 - b. The hourly average NO_x and SO₂ concentrations (in ppm).
 - c. The hourly average O₂ or CO₂ concentration (in percent) to establish valid NO_x and SO₂ emission rates.
 - d. The NO_x and SO₂ mass emissions (in pounds) for each one hour period of operation of **S2.001 and S2.002**, each.
 - e. The daily mass emissions (in pounds) of NO_x and SO₂ as the sum of the hourly emissions.
 - f. The monthly mass emissions (in tons) of NO_x and SO₂ as the sum of the daily emissions.
4. The *Permittee* will conduct Relative Accuracy Test Audit (RATA) of the NO_x and SO₂ and O₂ or CO₂ CEMS for the exhaust stacks of **S2.001 and S2.002**, each to certify the performance of the CEMS. The RATAs must be conducted at least once every four calendar quarters from the previously conducted RATA. 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, the RATA shall be performed in the quarter in which the unit recommences operation (40 CFR Part 60 Appendix F 5.1.4). The *Permittee* shall conduct RATA in accordance with the applicable requirements prescribed in applicable Performance Specifications 2, 3, and 6 in Appendix B to 40 CFR Part 60, 40 CFR Part 75, 40 CFR Part 75 Appendix A – Specifications and Test Procedures, and 40 CFR 75 Appendix B – Quality Assurance/Quality Control Program and comply with the notification, protocol approval, and reporting requirements of NAC 445B.252 Testing and Sampling, and NAC 445B.259 Monitoring Systems: Performance evaluations, applicable Subparts/Sections and Appendices of 40 CFR 75, and 40 CFR Part 60 Appendix F.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

A. Continuous Emission Monitoring System (CEMS) Requirements for **S2.001 and S2.002 (continued)**
NAC 445B.3405 (NAC 445B.316) (continued)

5. The *Permittee* shall conduct quarterly accuracy audits for each CEMS in accordance with the applicable requirements prescribed in 40 CFR Part 60, applicable Subparts/Sections and Appendices of 40 CFR Part 75, and NAC 445B.252 to NAC 445B.267. Successive quarterly accuracy audits shall occur no closer than 2 months.
6. The *Permittee* shall submit complete CEMS quarterly reports along with supporting documents in accordance with the applicable requirements prescribed in 40 CFR Part 60 Appendix F – Quality Assurance Procedures and applicable Subparts/Sections and Appendices of 40 CFR Part 75. The *Permittee* shall also submit the reports to the Director. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter.
7. Quality Assurance (QA) Plan: The *Permittee* shall submit a Quality Assurance (QA) Plan for their CEMS systems, in accordance with the requirements set forth in 40 CFR Part 60 Appendix F, applicable Subparts/Sections and Appendices of 40 CFR Part 75, NAC 445B.252-267, and this operating permit. The *Permittee* shall submit the QA Plan within 180 days of the issuance of this operating permit to the Director. Any revisions to the QA Plan must be notified to the Director before becoming effective.
8. The *Permittee* shall ensure that each continuous emission monitoring system required by this operating permit meets the initial certification and recertification requirements as identified in 40 CFR Part 60 and 40 CFR Part 75 Subpart C § 75.20 – Initial Certification and Recertification Procedures.

B. Continuous Opacity Monitoring System (COMS) Requirements for **S2.001 and S2.002**
NAC 445B.3405 (NAC 445B.316)

1. On or before the date of start-up of **S2.001 and S2.002**, the *Permittee* shall install, calibrate, operate and maintain a continuous opacity monitoring (COMS) system in the appropriate location per 40 CFR Part 60, Appendix B, Performance Specification 1 of **S2.001 and S2.002**, each. The COMS sampling probe must be installed at an appropriate location per 40 CFR Part 60, Appendix B, Performance Specification 1 to accurately and continuously measure the opacity from **S2.001 and S2.002**, each, in accordance with the requirements prescribed in NAC 445B.252 to NAC 445B.267, 40 CFR Part 60, Appendix B, Performance Specifications 2, 3, and 6, and 40 CFR Part 60, Appendix F – Quality Assurance Procedures and Procedure 3, applicable Subparts/Sections and Appendices of 40 CFR Part 75, and 40 CFR Part 75 Subpart B §75.14 and §75.18. Verification of the operational status shall, as a minimum, include completion of the manufacturer’s written requirements or recommendations for installation, operation, and calibration of the devices.
2. The COMS described in B.1. of this section shall be maintained in accordance with the quality assurance procedures contained in 40 CFR Part 60 Appendix F, NAC 445B.261, and 40 CFR Part 75 Subpart C §75.21. The zero and span drift of the COMS must be checked at least once daily in accordance with the method prescribed by the manufacturer of the systems unless the manufacturer recommends adjustments at shorter intervals, in which case the recommendations must be followed. The zero and span must, as a minimum, be adjusted as specified in the applicable performance specifications in Appendix B of 40 CFR Part 60 and 40 CFR Part 75 are exceeded.
3. On or before the date of start-up of **S2.001 and S2.002**, the *Permittee* shall install, calibrate, operate and maintain a continuous data collection system (CDCS) to accurately and continuously record the opacity in the exhaust stacks of **S2.001 and S2.002**, each. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer’s specifications and the requirements prescribed in NAC 445B.252 to NAC 445B.26740, CFR Part 60, Appendix B, 40 CFR Part 60, Appendix F – Quality Assurance Procedures and Procedure 3, and 40 CFR Part 75. Additionally, *Permittee* will record the calendar date and time.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

B. Continuous Opacity Monitoring System (COMS) Requirements for S2.001 and S2.002 (continued)
NAC 445B.3405 (NAC 445B.316) (continued)

4. The *Permittee* shall conduct quarterly and annual accuracy audits for each COMS in accordance with the applicable requirements prescribed in 40 CFR Part 60, Appendix F – Quality Assurance Procedures and Procedure 3, applicable Subparts/Sections and Appendices of 40 CFR Part 75, 40 CFR Part 75 Subpart C §75.21, 40 CFR Part 75 Appendix A – Specifications and Test Procedures, 40 CFR Part 75 Appendix B – Quality Assurance/Quality Control Program, and NAC 445B.252 to NAC 445B.267. Successive quarterly accuracy audits shall occur no closer than 2 months.
5. The *Permittee* shall submit complete COMS quarterly reports along with supporting documents in accordance with the applicable requirements prescribed in 40 CFR Part 60 Appendix F – Quality Assurance Procedures and Procedure 3, applicable Subparts/Sections and Appendices of 40 CFR Part 75, and 40 CFR Part 75 Subpart C §75.21. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter. Annual audit reports must be submitted to the NDEP-BAQP within 60 days of the conclusion of the audit in accordance with NAC 445B.252 “Testing and sampling.”
6. Quality Assurance (QA) Plan: The *Permittee* shall submit a Quality Assurance (QA) Plan for their COMS systems, in accordance with the requirements set forth in 40 CFR Part 60 Appendix F, applicable Subparts/Sections and Appendices of 40 CFR Part 75, NAC 445B.252-267, and this operating permit. The *Permittee* shall submit the QA Plan within 180 days of the issuance of this operating permit to the Director. Any revisions to the QA Plan must be notified to the Director before becoming effective.
7. The *Permittee* shall ensure that each continuous opacity monitoring system required by this operating permit meets the initial certification and recertification requirements as identified in 40 CFR Part 60 and 40 CFR Part 75 Subpart C § 75.20 – Initial Certification and Recertification Procedures.

C. Continuous Monitoring Systems (CMS) Requirements for S2.001 and S2.002
NAC 445B.3405 (NAC 445B.316)

1. Should the *Permittee* use like-kind analyzers for the temporary use as allowed in 40 CFR Part 75 or install redundant or backup CEMS/COMS/DAHS systems then the like-kind analyzers, the redundant or backup CEMS/COMS/DAHS systems will follow 40 CFR Part 60 and 40 CFR Part 75 rules, as applicable, for initial certification and recertification and data usage. Valid data collected under Part 75 may be used for compliance and reporting under Part 60 but shall not be biased or use data substitution.
2. The *Permittee* shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of S2.001 and S2.002 and any periods during which a continuous monitoring system or monitoring device is inoperative.
3. The *Permittee* shall submit a written report of excess emissions to the Administrator and Director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - a. The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - b. Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - c. The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - d. Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - e. When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

C. Continuous Monitoring Systems (CMS) Requirements for **S2.001 and S2.002**
NAC 445B.3405 (NAC 445B.316) (continued)

4. The *Permittee* shall maintain a file of all records, including:
 - a. Continuous monitoring systems, monitoring devices and performance testing measurements;
 - b. All continuous monitoring system performance evaluations;
 - c. All continuous monitoring systems or monitoring device calibration checks;
 - d. Adjustments and maintenance performed on these systems or devices; and
 - e. All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - f. The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

D. Continuous Emissions Monitoring System (CEMS) Requirements for **NO_x** for **S2.001A and S2.002A** (NAC 445B.3405)

1. On or before the date of start-up of **S2.001A and S2.002A**, each, the Permittee shall install, calibrate, operate, and maintain a NO_x CEMS in the exhaust stacks of **S2.001A and S2.002A**, each. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of NO_x (in ppm) from **S2.001A and S2.002A**, each, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.252 to NAC 445B.267, applicable subparts 40 CFR Part 75 Appendix A and Appendix B. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.
2. For initial certification, the Permittee shall conduct the following performance specifications (40 CFR Part 75 Appendix A Section 3.0):
 - a. Calibration Error (40 CFR Part 75 Appendix A Section 3.1):
 - (1) The calibration error of NO_x pollutant concentration monitors shall not deviate from the reference value of either the zero or upscale calibration gas by more than 2.5 percent of the span of the instrument. Alternatively, where the span value is less than 200 ppm, calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value is less than or equal to 5 ppm.
 - b. Linearity Check (40 CFR part 75 Appendix A 3.2)
 - (1) For NO_x pollutant concentration monitors, the error in linearity for each calibration gas concentration shall not exceed or deviate from the reference value by more than 5.0 percent. Linearity check results are also acceptable if the absolute value of the difference between the average of the monitor response values and the average of the reference values is less than or equal to 5 ppm.
 - c. Relative Accuracy (40 CFR Part 75 Appendix A Section 3.3):
 - (1) Relative Accuracy for NO_x-Diluent Continuous Emission Monitoring Systems:
 - (a) The relative accuracy for NO_x-diluent continuous emission monitoring systems shall not exceed 10.0 percent.
 - (b) For affected units where the average of the reference method measurements of NO_x emission rate during the relative accuracy test audit is less than or equal to 0.200 lb/mmBtu, the difference between the mean value of the continuous emission monitoring system measurements and the reference method mean value shall not exceed ±0.020 lb/mmBtu, wherever the relative accuracy specification of 10.0 percent is not achieved.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

- D. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.001A and S2.002A (NAC 445B.3405) (continued)
2. The Permittee shall conduct the following performance specifications (40 CFR Part 75 Appendix A Section 3.0) (continued):
 - d. Bias (40 CFR Part 75 Appendix A Section 3.4):
 - (1) NO_x-Diluent Continuous Emission Monitoring Systems:
 - (a) NO_x-diluent continuous emission monitoring systems shall not be biased low.
 - e. Cycle Time (40 CFR Part 75 Appendix A Section 3.5):

The cycle time for pollutant concentration monitors, oxygen monitors used to determine percent moisture, and any other monitoring component of a continuous emission monitoring system that is required to perform a cycle time test shall not exceed 15 minutes.
 3. Data Acquisition and Handling Systems (40 CFR Part 75 Appendix A Sections 4(a), 4(b), 4(c)):
 - a. Read and record the full range of pollutant concentrations and fuel flowrate through the upper range value;
 - b. Calculate and record intermediate values necessary to obtain emissions, such as mass fuel flowrate and heat input rate;
 - c. Interpret and convert the individual output signals from all applicable monitoring systems to produce a continuous readout of pollutant emission rates or pollutant mass emissions in the appropriate units;
 - d. Monitor calibration error; any bias adjustments to pollutant emission rates;
 - e. As applicable, calculate and record all missing data substitution values; and
 - f. As applicable, provide a continuous, permanent record of all measurements and required information in an electronic format.
 4. The Permittee shall comply with the following certification tests and procedures (40 CFR Part 75 Appendix A Section 6.0):
 - a. Linearity Check
 - b. 7-Day Calibration Test
 - c. Cycle Time Test
 - d. Relative Accuracy and Bias Tests
 5. The Permittee shall develop and implement a quality assurance/quality control (QA/QC) program for the continuous emission monitoring systems and excepted monitoring systems approved under Appendix D and their components. (40 CFR Part 75 Appendix B Section 1.0)
 6. The Permittee shall comply with the following monitoring system requirements (40 CFR Part 75 Appendix B Section 1.1):
 - a. Preventative Maintenance (40 CFR Part 75 Appendix B Section 1.1.1):

The Permittee shall keep a written record of procedures needed to maintain the monitoring system in proper operating condition and a schedule for those procedures.
 - b. Recordkeeping and Reporting (40 CFR Part 75 Appendix B Section 1.1.2):

The Permittee shall keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements in the applicable subparts.
 - c. Maintenance Records (40 CFR Part 75 Appendix B Section 1.1.3):

The Permittee shall keep a record of all testing, maintenance, or repair activities performed on any monitoring system or component in a location and format suitable for inspection. A maintenance log may be used for this purpose. Additionally, any adjustment that recharacterizes a system's ability to record and report emissions data must be recorded, and a written explanation of the procedures used to make the adjustment(s) shall be kept.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

D. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.001A and S2.002A (NAC 445B.3405) (continued)

7. The Permittee shall comply with the following specific requirements for CEMS (40 CFR Part 75 Appendix B Section 1.2):
 - d. Calibration Error Test and Linearity Check Procedures (40 CFR Part 75 Appendix B Section 1.2.1):

The Permittee shall keep a written record of the procedures used for daily calibration error tests and linearity checks and identify any calibration error test and linearity check procedures specific to the continuous emission monitoring system that vary from the applicable procedures.
 - e. Calibration and Linearity Adjustments (40 CFR Part 75 Appendix B Section 1.2.2):

The Permittee shall explain how each component of the CEMS will be adjusted to provide correct responses to calibration gases, reference values, and/or indications of interference both initially and after repairs or corrective action. The Permittee shall identify equations, conversion factors and other factors affecting calibration of each CEMS.
 - f. Relative Accuracy Test Audit Procedures (40 CFR Part 75 Appendix B Section 1.2.3):

The Permittee shall keep a written record of procedures and details peculiar to the installed continuous emission monitoring systems that are to be used for relative accuracy test audits, such as sampling and analysis methods.

8. The Permittee shall conduct quality assurance testing at the required frequencies as described by the following (40 CFR Part 75 Appendix B Section 2.0):
 - a. Daily Assessments
 - (1) Calibration Error Test
 - (a) On-line Daily Calibration Error Tests
 - (b) Off-line Daily Calibration Error Tests
 - (2) Additional Calibration Error Tests and Calibration Adjustments
 - b. Quarterly Assessments
 - (1) Linearity Check
 - (2) Flow-to-Load Ratio or Gross Heat Rate Evaluation
 - c. Semiannual and Annual Assessments
 - (1) Relative Accuracy Test Audit (RATA)
 - (a) The Permittee shall perform relative accuracy test audits semiannually for each applicable primary and redundant backup monitor. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted.
 - (b) Relative accuracy test audits of applicable primary and redundant backup monitors may be performed annually if any of the conditions under 40 CFR Part 75 Appendix B Sections 2.3.1.2(a) through 2.3.1.2(i) are met for the specific monitoring system involved.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

D. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.001A and S2.002A (NAC 445B.3405) (continued)

9. The Permittee shall ensure RATA data validation by conducting the following (40 CFR Part 75 Appendix B Section 2.3.2):
 - a. A RATA shall not commence if the monitoring system is operating out-of-control with respect to any of the daily and quarterly quality assurance or with respect to the additional calibration error tests.
 - b. The RATA may be done with no corrective maintenance, repair, calibration adjustments, re-linearization or reprogramming of the monitoring system prior to the test.
 - c. The RATA may be done after performing only the routine or non-routine calibration adjustments but no other corrective maintenance, repair, re-linearization or reprogramming of the monitoring system. Trial RATA runs may be performed after the calibration adjustments and additional adjustments may be made prior to the RATA, as necessary, to optimize the performance of the CEMS. The trial RATA runs need not be reported.
 - d. The RATA may be done after repair, corrective maintenance, re-linearization or reprogramming of the monitoring system.
 - e. Once a RATA is commenced, the test must be done hands-off. No adjustment of the monitor's calibration is permitted during the RATA test period, other than the routine calibration adjustments following daily calibration error tests. If a routine daily calibration error test is performed and passed just prior to a RATA (or during a RATA test period) and a mathematical correction factor is automatically applied by the DAHS, the correction factor shall be applied to all subsequent data recorded by the monitor, including the RATA test data.
 - f. For each monitoring system, report the results of all completed and partial RATAs that affect data validation in the quarterly report. A record of all RATAs, trial RATA runs and RATA attempts (whether reported or not) must be kept on-site as part of the official test log for each monitoring system.
10. If an applicable monitor fails the bias test, the Permittee shall use a bias adjustment factor (BAF) or the allowable alternative BAF to adjust the monitored data. (40 CFR Part 75 Appendix B Section 2.3.4)
11. Monitoring systems: Records; Reports (NAC 445B.265)
 - a. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
 - b. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - (1) The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - (3) The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - (4) Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - (a) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

D. Continuous Emissions Monitoring System (CEMS) Requirements for **NO_x** for **S2.001A and S2.002A** (NAC 445B.3405) (continued)

11. Monitoring systems: Records; Reports (NAC 445B.265) (continued)

- c. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
 - (1) Continuous monitoring systems, monitoring devices and performance testing measurements;
 - (2) All continuous monitoring system performance evaluations;
 - (3) All continuous monitoring systems or monitoring device calibration checks;
 - (4) Adjustments and maintenance performed on these systems or devices; and
 - (5) All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - (a) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

E. Continuous Emissions Monitoring System (CEMS) Requirements for **CO₂** or **O₂** for **S2.001A and S2.002A** (NAC 445B.3405)

- 1. On or before the date of start-up of **S2.001A and S2.002A**, each, the Permittee shall install, calibrate, operate, and maintain a CO₂ or O₂ CEMS in the exhaust stacks of **S2.001A and S2.002A**, each. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of CO₂ or O₂ (in %) from **S2.001A and S2.002A**, each, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.252 to NAC 445B.267, applicable subparts 40 CFR Part 75 Appendix A and Appendix B. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.
- 2. The Permittee shall conduct the following performance specifications (40 CFR Part 75 Appendix A Section 3.0):
 - a. Calibration Error (40 CFR Part 75 Appendix A Section 3.1):
 - (1) The calibration error of CO₂ or O₂ monitors shall not deviate from the reference value of the zero or upscale calibration gas by greater than 0.5 percent CO₂ or O₂.
 - b. Linearity Check (40 CFR Part 75 Appendix A Section 3.2):
 - (1) For CO₂ or O₂ monitors (including O₂ monitors used to measure CO₂ emissions or percent moisture):
 - (a) The error in linearity for each calibration gas concentration shall not exceed or deviate from the reference value by more than 5.0 percent, or
 - (b) The absolute value of the difference between the average of the monitor response values and the average of the reference values shall be less than or equal to 0.5 percent CO₂ or O₂, whichever is less restrictive.
 - c. Relative Accuracy (40 CFR Part 75 Appendix A Section 3.3):
 - (1) Relative Accuracy for CO₂ or O₂ Monitors:
 - (a) The relative accuracy for CO₂ or O₂ monitors shall not exceed 10.0 percent. The relative accuracy test results are also acceptable if the difference between the mean value of the CO₂ or O₂ monitor measurements and the corresponding reference method measurement mean value does not exceed ±1.0 percent CO₂ or O₂.
 - d. Cycle Time (40 CFR Part 75 Appendix A Section 3.5):

The cycle time for pollutant concentration monitors, oxygen monitors used to determine percent moisture, and any other monitoring component of a continuous emission monitoring system that is required to perform a cycle time test shall not exceed 15 minutes.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

- E. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.001A and S2.002A (NAC 445B.3405) (continued)
3. Data Acquisition and Handling Systems (40 CFR Part 75 Appendix A Sections 4(a), 4(b), 4(c)):
 - a. Read and record the full range of pollutant concentrations, and fuel flowrate through the upper range value;
 - b. Calculate and record intermediate values necessary to obtain emissions, such as mass fuel flowrate and heat input rate;
 - c. Interpret and convert the individual output signals from all applicable monitoring systems to produce a continuous readout of pollutant emission rates or pollutant mass emissions in the appropriate units;
 - d. Monitor calibration error; any bias adjustments to pollutant emission rates or pollutant mass emissions data;
 - e. Calculate and record all missing data substitution values; and
 - f. Provide a continuous, permanent record of all measurements and required information in an electronic format.
 4. The Permittee shall comply with the following certification tests and procedures (40 CFR Part 75 Appendix A Section 6.0):
 - a. Linearity Check
 - b. 7-Day Calibration Test
 - c. Cycle Time Test
 - d. Relative Accuracy and Bias Tests
 5. The Permittee shall develop and implement a quality assurance/quality control (QA/QC) program for the continuous emission monitoring systems and excepted monitoring systems approved under Appendix D and their components. (40 CFR Part 75 Appendix B Section 1.0)
 6. The Permittee shall comply with the following monitoring system requirements (40 CFR Part 75 Appendix B Section 1.1):
 - a. Preventative Maintenance (40 CFR Part 75 Appendix B Section 1.1.1):
The Permittee shall keep a written record of procedures needed to maintain the monitoring system in proper operating condition and a schedule for those procedures.
 - b. Recordkeeping and Reporting (40 CFR Part 75 Appendix B Section 1.1.2):
The Permittee shall keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements in the applicable subparts.
 - c. Maintenance Records (40 CFR Part 75 Appendix B Section 1.1.3):
The Permittee shall keep a record of all testing, maintenance, or repair activities performed on any monitoring system or component in a location and format suitable for inspection. A maintenance log may be used for this purpose. Additionally, any adjustment that recharacterizes a system's ability to record and report emissions data must be recorded, and a written explanation of the procedures used to make the adjustment(s) shall be kept.
 7. The Permittee shall comply with the following specific requirements for CEMS (40 CFR Part 75 Appendix B Section 1.2):
 - a. Calibration Error Test and Linearity Check Procedures (40 CFR Part 75 Appendix B Section 1.2.1):
The Permittee shall keep a written record of the procedures used for daily calibration error tests and linearity checks and identify any calibration error test and linearity check procedures specific to the continuous emission monitoring system that vary from the applicable procedures.
 - b. Calibration and Linearity Adjustments (40 CFR Part 75 Appendix B Section 1.2.2):
The Permittee shall explain how each component of the CEMS will be adjusted to provide correct responses to calibration gases, reference values, and/or indications of interference both initially and after repairs or corrective action. The Permittee shall identify equations, conversion factors and other factors affecting calibration of each CEMS.
 - c. Relative Accuracy Test Audit Procedures (40 CFR Part 75 Appendix B Section 1.2.3):
The Permittee shall keep a written record of procedures and details peculiar to the installed continuous emission monitoring systems that are to be used for relative accuracy test audits, such as sampling and analysis methods.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

E. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.001A and S2.002A (NAC 445B.3405) (continued)

8. The Permittee shall conduct quality assurance testing at the required frequencies as described by the following (40 CFR Part 75 Appendix B Section 2.0):
 - a. Daily Assessments
 - (1) Calibration Error Test
 - (a) On-line Daily Calibration Error Tests
 - (b) Off-line Daily Calibration Error Tests
 - (2) Additional Calibration Error Tests and Calibration Adjustments
 - b. Quarterly Assessments
 - (1) Linearity Check
 - (2) Flow-to-Load Ratio or Gross Heat Rate Evaluation
 - c. Semiannual and Annual Assessments
 - (1) Relative Accuracy Test Audit (RATA)
 - (a) The Permittee shall perform relative accuracy test audits semiannually for each applicable primary and redundant backup monitor. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted.
 - (b) Relative accuracy test audits of applicable primary and redundant backup monitors may be performed annually if any of the conditions under 40 CFR Part 75 Appendix B Sections 2.3.1.2(a) through 2.3.1.2(i) are met for the specific monitoring system involved.
9. The Permittee shall ensure RATA data validation by conducting the following (40 CFR Part 75 Appendix B Section 2.3.2):
 - a. A RATA shall not commence if the monitoring system is operating out-of-control with respect to any of the daily and quarterly quality assurance or with respect to the additional calibration error tests.
 - b. The RATA may be done with no corrective maintenance, repair, calibration adjustments, re-linearization or reprogramming of the monitoring system prior to the test.
 - c. The RATA may be done after performing only the routine or non-routine calibration adjustments but no other corrective maintenance, repair, re-linearization or reprogramming of the monitoring system. Trial RATA runs may be performed after the calibration adjustments and additional adjustments may be made prior to the RATA, as necessary, to optimize the performance of the CEMS. The trial RATA runs need not be reported.
 - d. The RATA may be done after repair, corrective maintenance, re-linearization or reprogramming of the monitoring system.
 - e. Once a RATA is commenced, the test must be done hands-off. No adjustment of the monitor's calibration is permitted during the RATA test period, other than the routine calibration adjustments following daily calibration error tests. If a routine daily calibration error test is performed and passed just prior to a RATA (or during a RATA test period) and a mathematical correction factor is automatically applied by the DAHS, the correction factor shall be applied to all subsequent data recorded by the monitor, including the RATA test data.
 - f. For each monitoring system, report the results of all completed and partial RATAs that affect data validation in the quarterly report. A record of all RATAs, trial RATA runs and RATA attempts (whether reported or not) must be kept on-site as part of the official test log for each monitoring system.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

E. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.001A and S2.002A (NAC 445B.3405) (continued)

10. Monitoring systems: Records; Reports (NAC 445B.265)

- a. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - (1) The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - (3) The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - (4) Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - (a) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.
- c. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
 - (1) Continuous monitoring systems, monitoring devices and performance testing measurements;
 - (2) All continuous monitoring system performance evaluations;
 - (3) All continuous monitoring systems or monitoring device calibration checks;
 - (4) Adjustments and maintenance performed on these systems or devices; and
 - (5) All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - (a) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

F. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.038 and S2.039 (NAC 445B.3405)

1. On or before the date of start-up of S2.038 and S2.039, each, the Permittee shall install, calibrate, operate, and maintain a NO_x CEMS in the exhaust stacks of S2.038 and S2.039, each. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of NO_x (in ppm) from S2.038 and S2.039, each, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.252 to NAC 445B.267, applicable subparts 40 CFR Part 75 Appendix A and Appendix B. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.
2. For initial certification, the Permittee shall conduct the following performance specifications (40 CFR Part 75 Appendix A Section 3.0):
 - a. Calibration Error (40 CFR Part 75 Appendix A Section 3.1):
 - (1) The calibration error of NO_x pollutant concentration monitors shall not deviate from the reference value of either the zero or upscale calibration gas by more than 2.5 percent of the span of the instrument. Alternatively, where the span value is less than 200 ppm, calibration error test results are also acceptable if the absolute value of the difference between the monitor response value and the reference value is less than or equal to 5 ppm.
 - b. Linearity Check (40 CFR part 75 Appendix A 3.2)
 - (1) For NO_x pollutant concentration monitors, the error in linearity for each calibration gas concentration shall not exceed or deviate from the reference value by more than 5.0 percent. Linearity check results are also acceptable if the absolute value of the difference between the average of the monitor response values and the average of the reference values is less than or equal to 5 ppm.
 - c. Relative Accuracy (40 CFR Part 75 Appendix A Section 3.3):
 - (1) Relative Accuracy for NO_x-Diluent Continuous Emission Monitoring Systems:
 - (a) The relative accuracy for NO_x-diluent continuous emission monitoring systems shall not exceed 10.0 percent.
 - (b) For affected units where the average of the reference method measurements of NO_x emission rate during the relative accuracy test audit is less than or equal to 0.200 lb/mmBtu, the difference between the mean value of the continuous emission monitoring system measurements and the reference method mean value shall not exceed ±0.020 lb/mmBtu, wherever the relative accuracy specification of 10.0 percent is not achieved.
 - d. Bias (40 CFR Part 75 Appendix A Section 3.4):
 - (1) NO_x-Diluent Continuous Emission Monitoring Systems:
 - (a) NO_x-diluent continuous emission monitoring systems shall not be biased low.
 - e. Cycle Time (40 CFR Part 75 Appendix A Section 3.5):

The cycle time for pollutant concentration monitors, oxygen monitors used to determine percent moisture, and any other monitoring component of a continuous emission monitoring system that is required to perform a cycle time test shall not exceed 15 minutes.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

F. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.038 and S2.039 (NAC 445B.3405) (continued)

3. Data Acquisition and Handling Systems (40 CFR Part 75 Appendix A Sections 4(a), 4(b), 4(c)):
 - a. Read and record the full range of pollutant concentrations and fuel flowrate through the upper range value;
 - b. Calculate and record intermediate values necessary to obtain emissions, such as mass fuel flowrate and heat input rate;
 - c. Interpret and convert the individual output signals from all applicable monitoring systems to produce a continuous readout of pollutant emission rates or pollutant mass emissions in the appropriate units;
 - d. Monitor calibration error; any bias adjustments to pollutant emission rates;
 - e. As applicable, calculate and record all missing data substitution values; and
 - f. As applicable, provide a continuous, permanent record of all measurements and required information in an electronic format.

4. The Permittee shall comply with the following certification tests and procedures (40 CFR Part 75 Appendix A Section 6.0):
 - a. Linearity Check
 - b. 7-Day Calibration Test
 - c. Cycle Time Test
 - d. Relative Accuracy and Bias Tests

5. The Permittee shall develop and implement a quality assurance/quality control (QA/QC) program for the continuous emission monitoring systems and excepted monitoring systems approved under Appendix D and their components. (40 CFR Part 75 Appendix B Section 1.0)

6. The Permittee shall comply with the following monitoring system requirements (40 CFR Part 75 Appendix B Section 1.1):
 - a. Preventative Maintenance (40 CFR Part 75 Appendix B Section 1.1.1):
The Permittee shall keep a written record of procedures needed to maintain the monitoring system in proper operating condition and a schedule for those procedures.
 - b. Recordkeeping and Reporting (40 CFR Part 75 Appendix B Section 1.1.2):
The Permittee shall keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements in the applicable subparts.
 - c. Maintenance Records (40 CFR Part 75 Appendix B Section 1.1.3):
The Permittee shall keep a record of all testing, maintenance, or repair activities performed on any monitoring system or component in a location and format suitable for inspection. A maintenance log may be used for this purpose. Additionally, any adjustment that recharacterizes a system's ability to record and report emissions data must be recorded, and a written explanation of the procedures used to make the adjustment(s) shall be kept.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

F. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.038 and S2.039 (NAC 445B.3405) (continued)

- 7. The Permittee shall comply with the following specific requirements for CEMS (40 CFR Part 75 Appendix B Section 1.2):
 - d. Calibration Error Test and Linearity Check Procedures (40 CFR Part 75 Appendix B Section 1.2.1):

The Permittee shall keep a written record of the procedures used for daily calibration error tests and linearity checks and identify any calibration error test and linearity check procedures specific to the continuous emission monitoring system that vary from the applicable procedures.
 - e. Calibration and Linearity Adjustments (40 CFR Part 75 Appendix B Section 1.2.2):

The Permittee shall explain how each component of the CEMS will be adjusted to provide correct responses to calibration gases, reference values, and/or indications of interference both initially and after repairs or corrective action. The Permittee shall identify equations, conversion factors and other factors affecting calibration of each CEMS.
 - f. Relative Accuracy Test Audit Procedures (40 CFR Part 75 Appendix B Section 1.2.3):

The Permittee shall keep a written record of procedures and details peculiar to the installed continuous emission monitoring systems that are to be used for relative accuracy test audits, such as sampling and analysis methods.

- 8. The Permittee shall conduct quality assurance testing at the required frequencies as described by the following (40 CFR Part 75 Appendix B Section 2.0):
 - a. Daily Assessments
 - (1) Calibration Error Test
 - (a) On-line Daily Calibration Error Tests
 - (b) Off-line Daily Calibration Error Tests
 - (2) Additional Calibration Error Tests and Calibration Adjustments
 - b. Quarterly Assessments
 - (1) Linearity Check
 - (2) Flow-to-Load Ratio or Gross Heat Rate Evaluation
 - c. Semiannual and Annual Assessments
 - (1) Relative Accuracy Test Audit (RATA)
 - (a) The Permittee shall perform relative accuracy test audits semiannually for each applicable primary and redundant backup monitor. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted.
 - (b) Relative accuracy test audits of applicable primary and redundant backup monitors may be performed annually if any of the conditions under 40 CFR Part 75 Appendix B Sections 2.3.1.2(a) through 2.3.1.2(i) are met for the specific monitoring system involved.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

F. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.038 and S2.039 (NAC 445B.3405) (continued)

9. The Permittee shall ensure RATA data validation by conducting the following (40 CFR Part 75 Appendix B Section 2.3.2):
 - a. A RATA shall not commence if the monitoring system is operating out-of-control with respect to any of the daily and quarterly quality assurance or with respect to the additional calibration error tests.
 - b. The RATA may be done with no corrective maintenance, repair, calibration adjustments, re-linearization or reprogramming of the monitoring system prior to the test.
 - c. The RATA may be done after performing only the routine or non-routine calibration adjustments but no other corrective maintenance, repair, re-linearization or reprogramming of the monitoring system. Trial RATA runs may be performed after the calibration adjustments and additional adjustments may be made prior to the RATA, as necessary, to optimize the performance of the CEMS. The trial RATA runs need not be reported.
 - d. The RATA may be done after repair, corrective maintenance, re-linearization or reprogramming of the monitoring system.
 - e. Once a RATA is commenced, the test must be done hands-off. No adjustment of the monitor's calibration is permitted during the RATA test period, other than the routine calibration adjustments following daily calibration error tests. If a routine daily calibration error test is performed and passed just prior to a RATA (or during a RATA test period) and a mathematical correction factor is automatically applied by the DAHS, the correction factor shall be applied to all subsequent data recorded by the monitor, including the RATA test data.
 - f. For each monitoring system, report the results of all completed and partial RATAs that affect data validation in the quarterly report. A record of all RATAs, trial RATA runs and RATA attempts (whether reported or not) must be kept on-site as part of the official test log for each monitoring system.
10. If an applicable monitor fails the bias test, the Permittee shall use a bias adjustment factor (BAF) or the allowable alternative BAF to adjust the monitored data. (40 CFR Part 75 Appendix B Section 2.3.4)
11. Monitoring systems: Records; Reports (NAC 445B.265)
 - a. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
 - b. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - (1) The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - (3) The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - (4) Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - (a) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

F. Continuous Emissions Monitoring System (CEMS) Requirements for NO_x for S2.038 and S2.039 (NAC 445B.3405) (continued)

11. Monitoring systems: Records: Reports (NAC 445B.265) (continued)

- c. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
 - (1) Continuous monitoring systems, monitoring devices and performance testing measurements;
 - (2) All continuous monitoring system performance evaluations;
 - (3) All continuous monitoring systems or monitoring device calibration checks;
 - (4) Adjustments and maintenance performed on these systems or devices; and
 - (5) All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - (a) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

G. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.038 and S2.039 (NAC 445B.3405)

- 1. On or before the date of start-up of S2.038 and S2.039, each, the Permittee shall install, calibrate, operate, and maintain a CO₂ or O₂ CEMS in the exhaust stacks of S2.038 and S2.039, each. The CEMS sampling probe must be installed at an appropriate location in the exhaust stacks to accurately and continuously measure the concentration of CO₂ or O₂ (in %) from S2.038 and S2.039, each, in accordance with the requirements prescribed in Nevada Administrative Code (NAC) 445B.252 to NAC 445B.267, applicable subparts 40 CFR Part 75 Appendix A and Appendix B. Verification of the operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.
- 2. The Permittee shall conduct the following performance specifications (40 CFR Part 75 Appendix A Section 3.0):
 - a. Calibration Error (40 CFR Part 75 Appendix A Section 3.1):
 - (1) The calibration error of CO₂ or O₂ monitors shall not deviate from the reference value of the zero or upscale calibration gas by greater than 0.5 percent CO₂ or O₂.
 - b. Linearity Check (40 CFR Part 75 Appendix A Section 3.2):
 - (1) For CO₂ or O₂ monitors (including O₂ monitors used to measure CO₂ emissions or percent moisture):
 - (a) The error in linearity for each calibration gas concentration shall not exceed or deviate from the reference value by more than 5.0 percent, or
 - (b) The absolute value of the difference between the average of the monitor response values and the average of the reference values shall be less than or equal to 0.5 percent CO₂ or O₂, whichever is less restrictive.
 - c. Relative Accuracy (40 CFR Part 75 Appendix A Section 3.3):
 - (1) Relative Accuracy for CO₂ or O₂ Monitors:
 - (a) The relative accuracy for CO₂ or O₂ monitors shall not exceed 10.0 percent. The relative accuracy test results are also acceptable if the difference between the mean value of the CO₂ or O₂ monitor measurements and the corresponding reference method measurement mean value does not exceed ±1.0 percent CO₂ or O₂.
 - d. Cycle Time (40 CFR Part 75 Appendix A Section 3.5):

The cycle time for pollutant concentration monitors, oxygen monitors used to determine percent moisture, and any other monitoring component of a continuous emission monitoring system that is required to perform a cycle time test shall not exceed 15 minutes.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

G. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.038 and S2.039 (NAC 445B.3405) (continued)

3. Data Acquisition and Handling Systems (40 CFR Part 75 Appendix A Sections 4(a), 4(b), 4(c)):
 - a. Read and record the full range of pollutant concentrations, and fuel flowrate through the upper range value;
 - b. Calculate and record intermediate values necessary to obtain emissions, such as mass fuel flowrate and heat input rate;
 - c. Interpret and convert the individual output signals from all applicable monitoring systems to produce a continuous readout of pollutant emission rates or pollutant mass emissions in the appropriate units;
 - d. Monitor calibration error; any bias adjustments to pollutant emission rates or pollutant mass emissions data;
 - e. Calculate and record all missing data substitution values; and
 - f. Provide a continuous, permanent record of all measurements and required information in an electronic format.

4. The Permittee shall comply with the following certification tests and procedures (40 CFR Part 75 Appendix A Section 6.0):
 - a. Linearity Check
 - b. 7-Day Calibration Test
 - c. Cycle Time Test
 - d. Relative Accuracy and Bias Tests

5. The Permittee shall develop and implement a quality assurance/quality control (QA/QC) program for the continuous emission monitoring systems and excepted monitoring systems approved under Appendix D and their components. (40 CFR Part 75 Appendix B Section 1.0)

6. The Permittee shall comply with the following monitoring system requirements (40 CFR Part 75 Appendix B Section 1.1):
 - a. Preventative Maintenance (40 CFR Part 75 Appendix B Section 1.1.1):
The Permittee shall keep a written record of procedures needed to maintain the monitoring system in proper operating condition and a schedule for those procedures.
 - b. Recordkeeping and Reporting (40 CFR Part 75 Appendix B Section 1.1.2):
The Permittee shall keep a written record describing procedures that will be used to implement the recordkeeping and reporting requirements in the applicable subparts.
 - c. Maintenance Records (40 CFR Part 75 Appendix B Section 1.1.3):
The Permittee shall keep a record of all testing, maintenance, or repair activities performed on any monitoring system or component in a location and format suitable for inspection. A maintenance log may be used for this purpose. Additionally, any adjustment that recharacterizes a system's ability to record and report emissions data must be recorded, and a written explanation of the procedures used to make the adjustment(s) shall be kept.

7. The Permittee shall comply with the following specific requirements for CEMS (40 CFR Part 75 Appendix B Section 1.2):
 - a. Calibration Error Test and Linearity Check Procedures (40 CFR Part 75 Appendix B Section 1.2.1):
The Permittee shall keep a written record of the procedures used for daily calibration error tests and linearity checks and identify any calibration error test and linearity check procedures specific to the continuous emission monitoring system that vary from the applicable procedures.
 - b. Calibration and Linearity Adjustments (40 CFR Part 75 Appendix B Section 1.2.2):
The Permittee shall explain how each component of the CEMS will be adjusted to provide correct responses to calibration gases, reference values, and/or indications of interference both initially and after repairs or corrective action. The Permittee shall identify equations, conversion factors and other factors affecting calibration of each CEMS.
 - c. Relative Accuracy Test Audit Procedures (40 CFR Part 75 Appendix B Section 1.2.3):
The Permittee shall keep a written record of procedures and details peculiar to the installed continuous emission monitoring systems that are to be used for relative accuracy test audits, such as sampling and analysis methods.



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

G. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.038 and S2.039 (NAC 445B.3405) (continued)

8. The Permittee shall conduct quality assurance testing at the required frequencies as described by the following (40 CFR Part 75 Appendix B Section 2.0):
 - a. Daily Assessments
 - (1) Calibration Error Test
 - (a) On-line Daily Calibration Error Tests
 - (b) Off-line Daily Calibration Error Tests
 - (2) Additional Calibration Error Tests and Calibration Adjustments
 - b. Quarterly Assessments
 - (1) Linearity Check
 - (2) Flow-to-Load Ratio or Gross Heat Rate Evaluation
 - c. Semiannual and Annual Assessments
 - (1) Relative Accuracy Test Audit (RATA)
 - (a) The Permittee shall perform relative accuracy test audits semiannually for each applicable primary and redundant backup monitor. No more than eight successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted.
 - (b) Relative accuracy test audits of applicable primary and redundant backup monitors may be performed annually if any of the conditions under 40 CFR Part 75 Appendix B Sections 2.3.1.2(a) through 2.3.1.2(i) are met for the specific monitoring system involved.
9. The Permittee shall ensure RATA data validation by conducting the following (40 CFR Part 75 Appendix B Section 2.3.2):
 - a. A RATA shall not commence if the monitoring system is operating out-of-control with respect to any of the daily and quarterly quality assurance or with respect to the additional calibration error tests.
 - b. The RATA may be done with no corrective maintenance, repair, calibration adjustments, re-linearization or reprogramming of the monitoring system prior to the test.
 - c. The RATA may be done after performing only the routine or non-routine calibration adjustments but no other corrective maintenance, repair, re-linearization or reprogramming of the monitoring system. Trial RATA runs may be performed after the calibration adjustments and additional adjustments may be made prior to the RATA, as necessary, to optimize the performance of the CEMS. The trial RATA runs need not be reported.
 - d. The RATA may be done after repair, corrective maintenance, re-linearization or reprogramming of the monitoring system.
 - e. Once a RATA is commenced, the test must be done hands-off. No adjustment of the monitor's calibration is permitted during the RATA test period, other than the routine calibration adjustments following daily calibration error tests. If a routine daily calibration error test is performed and passed just prior to a RATA (or during a RATA test period) and a mathematical correction factor is automatically applied by the DAHS, the correction factor shall be applied to all subsequent data recorded by the monitor, including the RATA test data.
 - f. For each monitoring system, report the results of all completed and partial RATAs that affect data validation in the quarterly report. A record of all RATAs, trial RATA runs and RATA attempts (whether reported or not) must be kept on-site as part of the official test log for each monitoring system.



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Section VII. Continuous Monitoring Systems (CMS) Conditions (continued)

G. Continuous Emissions Monitoring System (CEMS) Requirements for CO₂ or O₂ for S2.038 and S2.039 (NAC 445B.3405) (continued)

10. Monitoring systems: Records; Reports (NAC 445B.265)

- a. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.
- b. The Permittee required to install a continuous monitoring system shall submit a written report of excess emissions to the director for every calendar quarter. All quarterly reports must be postmarked by the 30th day following the end of each calendar quarter and must include the following information:
 - (1) The magnitude of excess emissions computed in accordance with NAC 445B.256 to 445B.267, inclusive, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns and malfunctions of the affected facility.
 - (3) The nature and cause of any malfunction, if known, the corrective action taken or preventative measures adopted.
 - (4) Specific identification of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made.
 - (a) When no excess emissions have occurred and the continuous monitoring system has not been inoperative, repaired or adjusted, such information shall be included in the report.
- c. The Permittee subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain a file of all measurements, including:
 - (1) Continuous monitoring systems, monitoring devices and performance testing measurements;
 - (2) All continuous monitoring system performance evaluations;
 - (3) All continuous monitoring systems or monitoring device calibration checks;
 - (4) Adjustments and maintenance performed on these systems or devices; and
 - (5) All other information required by NAC 445B.256 to 445B.267, inclusive, recorded in a permanent form suitable for inspection.
 - (a) The file shall be retained for at least 2 years following the date of the measurements, maintenance, reports and records.

*****End of Continuous Monitoring Systems (CMS) Conditions*****



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Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section VIII. Mercury and Air Toxics Standards

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1))

a. General Compliance Requirements

Effective April 16, 2015, the *Permittee* shall comply with the following requirements for each affected emission unit:

- (1) The *Permittee* must meet the notification requirements in §63.10030 according to the schedule in §63.10030 and in Subpart A of Part 63. Some of the notifications must be submitted before the *Permittee* is required to comply with the emission limits and work practice standards in Subpart UUUUU. [40 CFR 63.9984(c)]
- (2) The *Permittee* must demonstrate that compliance has been achieved, by conducting the required performance tests and other activities no later than 180 days after the applicable date of April 16, 2015 for existing EGUs. [40 CFR 63.9984(f)]
- (3) At all times, the *Permittee* must meet each emission limit and work practice standard in Tables 2 and 3 of Subpart UUUUU that applies to **S2.001** and **S2.002**, each, except as provided in §63.10009. [40 CFR 63.9991(a)(1)]
- (4) At all times, the *Permittee* must meet each operating limit in Table 4 of Subpart UUUUU that applies to **S2.001** and **S2.002**, each. [40 CFR 63.9991(a)(2)]
- (5) The *Permittee* may use the alternate SO₂ emission limit in Table 2 of Subpart UUUUU, but only if the EGU has a system using wet or dry FGD technology and SO₂ CEMS installed on the unit; and at all times, the *Permittee* operates the wet or dry FGD technology installed on the unit consistent with §63.10000(b). [40 CFR 63.9991(c)]
- (6) The emission limits and operating limits in Subpart UUUUU apply at all times except during periods of startup and shutdown; however, the work practice requirements in Table 3 of Subpart UUUUU must be met during periods of startup or shutdown. [40 CFR 63.10000(a)]
- (7) At all times, the *Permittee* must 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA 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. [40 CFR 63.10000(b)]
- (8) Initial performance testing is required for all units, to demonstrate compliance with the applicable emission limits. [40 CFR 63.10000(c)(1)]
- (9) The *Permittee* may conduct the initial performance testing in accordance with §63.10005(h), to determine whether the unit qualifies as a low emitting unit (LEE) for one or more applicable emissions limits, except that the *Permittee* may not pursue the LEE option if the EGU is equipped with an acid gas scrubber and bypass stack exhaust configuration. [40 CFR 63.10000(c)(1)(i)]
- (10) For a qualifying LEE for Hg emissions limits, the *Permittee* must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. [40 CFR 63.10000(c)(1)(ii)]
- (11) For a qualifying LEE of any other applicable emissions limits, the *Permittee* must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status. [40 CFR 63.10000(c)(1)(iii)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing stationary EGU (40 CFR 63.9982(a)(1)) (continued)*

a. General Compliance Requirements (continued)

- (12) If the EGU does not qualify under §63.10000(c)(1)(i) as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable PM, the **Permittee** must demonstrate compliance through an initial performance test and must monitor continuous performance through either use of a PM continuous parametric monitoring system (PM CPMS), a PM CEMS, or compliance performance testing repeated quarterly. If the **Permittee** elects to use a PM CPMS, the **Permittee** must establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the pollutant with which the **Permittee** chooses to comply: total non-mercury HAP metals, individual non-mercury HAP metals, or filterable PM. The **Permittee** will use the PM CPMS to demonstrate continuous compliance with this operating limit. The performance test must be repeated annually and the site-specific operating limit reassessed and adjusted in accordance with the results of the performance test. Alternatively, the **Permittee** may opt to install and operate a PM CEMS, certified in accordance with Performance Specification 11 and Procedure 2 of 40 CFR Part 60, Appendices B and F, respectively, in accordance with §63.10010(i). [40 CFR 63.10000(c)(1)(iv)]
- (13) If the EGU does not qualify as a LEE for hydrogen chloride (HCl), the **Permittee** may demonstrate initial and continuous compliance through use of a HCl CEMS, installed and operated in accordance with Appendix B to Subpart UUUUU. Alternatively, the **Permittee** may demonstrate initial and continuous compliance through use of a HCl CEMS, installed and operated in accordance with Appendix B to Subpart UUUUU. Alternatively, the **Permittee** may demonstrate initial and continuous compliance by conducting initial and quarterly performance stack tests for HCl. If the EGU uses wet or dry FGD technology, the **Permittee** may alternatively install and operate a SO₂ CEMS in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable SO₂ emission limit. [40 CFR 63.10000(c)(1)(v)]
- (14) If the EGU does not qualify as a LEE for mercury (Hg), the **Permittee** must demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with Appendix A to Subpart UUUUU. [40 CFR 63.10000(c)(1)(vi)]
- (15) If the **Permittee** demonstrates compliance with any applicable emissions limit through use of a CMS that includes a CPMS as well as a CEMS, the **Permittee** must develop a site-specific monitoring plan and submit this plan, if requested, at least 60 days before the initial performance evaluation (where applicable) of the CMS. The monitoring plan must address the provisions of §63.10000(d)(1) through (5). This requirement does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under Appendix B to 40 CFR Part 60 or 40 CFR Part 75, and that meet the requirements of §63.10010. [40 CFR 63.10000(d)]
- (16) As part of the demonstration of continuous compliance, the **Permittee** must perform periodic tune-ups of the EGU, according to §63.10021(e). [40 CFR 63.10000(e)]
- (17) Affirmative defense for exceedance of emission limit during malfunction. In response to an action to enforce the standard set forth in §63.9991, the **Permittee** may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined in 40 CFR 63.2. Appropriate penalties may be assessed, however, if the **Permittee** fails to meet its burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief. Specific provisions on affirmative defense are in §63.10001(a) and (b). [40 CFR 63.10001]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

b. Testing and Initial Compliance Requirements

- (1) General requirements. The **Permittee** must demonstrate initial compliance with applicable emission limits in Table 2 of Subpart UUUUU through performance testing, which may require collection of hourly electrical load data, establishment of operating limits, and CMS performance evaluations. Initial compliance must also be demonstrated for tune-up work practices, as well as for other requirements for existing EGUs in §63.9984. The **Permittee** shall comply with any additional applicable provisions on demonstrating initial compliance at §63.10005(a)(1) and (2). [40 CFR 63.10005(a)]
- (2) Performance testing requirements. Performance tests must be conducted according to §63.10007 and Table 5 to Subpart UUUUU. The **Permittee** shall comply with all additional applicable provisions on performance testing at §63.10005(b)(1) through (5). [40 CFR 63.10005(b)]
- (3) Operating limits. In accordance with §63.10010 and Table 4 to Subpart UUUUU, the **Permittee** may be required to establish operating limits using PM CPMS as part of the initial compliance demonstration. [40 CFR 63.10005€]
- (4) CMS requirements: If, for a particular emission or operating limit, the **Permittee** is required to (or elects to) demonstrate initial compliance using a CMS, the CMS must pass a performance evaluation prior to the initial compliance demonstration. The **Permittee** shall comply with all additional applicable CMS provisions at §63.10005(d)(1) through (3). [40 CFR 63.10005(d)]
- (5) Tune-ups. All affected EGUs are subject to the work practice standards in Table 3 of Subpart UUUUU. As part of the initial compliance demonstration, the **Permittee** must conduct a performance tune-up of the EGU according to §63.10021€. [40 CFR 63.10005€]
- (6) For existing affected sources, a tune-up may occur prior to April 16, 2012, so that existing sources without neural networks have up to 42 calendar months (3 years from promulgation plus 180 days) or, in the case of units employing neural network combustion controls, up to 54 calendar months (48 months from promulgation plus 180 days) after the date that is specified for the **Permittee's** source in §63.9984 and according to the applicable provisions of §63.7(a)(2) as cited in Table 9 to Subpart UUUUU, to demonstrate compliance with this requirement. If a tune-up occurs prior to such date, the source must maintain adequate records to show that the tune-up met the requirements of this standard. [40 CRR 63.10005(f)]
- (7) Low-emitting EGU (LEE). An EGU may qualify for LEE status for Hg, HCl, HF, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals, if performance test data are collected that meet the requirements of §63.10005(h), and if those data demonstrate that emissions are below the levels specified in §63.10005(h)(1). For all pollutants except Hg, all required performance tests described in §63.10007 must be conducted to demonstrate that a unit qualifies for LEE status. For Hg, the procedures described in §63.10005(h)(3) must be used to determine whether a unit qualifies for LEE status. [40 CFR 63.10005(h)]
- (8) Startup and shutdown. The **Permittee** must follow the requirements given in Table 3 to Subpart UUUUU. [40 CFR 63.10005(j)]
- (9) Notification of compliance status. The **Permittee** must submit a Notification of Compliance Status, summarizing the results of the initial compliance demonstration, as provided in §63.10030. [40 CFR 63.10005(k)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

b. Testing and Initial Compliance Requirements (continued)

- (10) Subsequent performance tests and tune-ups: For EGUs using PM CPMS to monitor continuous performance with an applicable emission limit as provided for under §63.10000(c), the **Permittee** must conduct all applicable performance tests according to Table 5 to Subpart UUUUU and §63.10007 at least every year. [40 CFR 63.10006(a)]
- (11) For affected units meeting the LEE requirements of §63.10005(h), the **Permittee** must repeat the performance test once every 3 years (once every year for Hg) according to Table 5 and §63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, subsequent testing must be conducted as specified in §63.10006(b). [40 CFR 63.10006(b)]
- (12) Except where §63.10006(a) or (b) apply, or where you install, certify, and operate a PM CEMS to demonstrate compliance with a filterable PM emissions limits for coal-fired EGUs, the **Permittee** must conduct all applicable periodic emissions tests for filterable PM, individual, or total HAP metals emissions according to Table 5 to Subpart UUUUU, §63.10007, and §63.10000(c), except as otherwise provided in §63.10021(d)(1). [§63.10006(c)]
- (13) Except where §63.10006(b) applies, coal-fired EGUs that do not use either an HCl CEMS to monitor compliance with the HCl limit or an SO₂ CEMS to monitor compliance with the alternate equivalent SO₂ emission limit, the **Permittee** must conduct all applicable periodic HCl emissions tests according to Table 5 to Subpart UUUUU and §63.10007 at least quarterly, except as otherwise provided in §63.10021(d)(1). [40 CFR 63.10006(d)]
- (14) Unless the **Permittee** follows the requirements listed in §63.10006(g) and (h), performance tests required at least every 3 calendar years must be completed within 35 to 37 calendar months after the previous performance test; performance tests required at least every year must be completed within 11 to 13 calendar months after the previous performance test; and performance tests required at least quarterly must be completed within 80 to 100 calendar days after the previous performance test, except as otherwise provided in §63.10021(d)(1). [40 CFR 63.10006(f)]
- (15) If the **Permittee** elects to demonstrate compliance using emissions averaging under §63.10009, the **Permittee** must continue to conduct performance stack tests at the appropriate frequency given in §63.10006(c) through (f). [40 CFR 63.10006(g)]
- (16) If a performance test on a non-mercury LEE shows emissions in excess of 50 percent of the emission limit and the **Permittee** chooses to reapply for LEE status, the **Permittee** must conduct performance tests at the appropriate frequency given in §63.10006(c) through (e) for that pollutant, until all performance tests over a consecutive 3-year period show compliance with the LEE criteria. [40 CFR 63.10006(h)]
- (17) If the **Permittee** is required to meet an applicable tune-up work practice standard, the **Permittee** must conduct a performance tune-up according to §63.10021(e). [40 CFR 63.10006(i)]
- (18) The **Permittee** must report the results of performance tests and performance tune-ups within 60 days after completion of the test or tune-up. The reports for all subsequent performance tests must include all applicable information required in §63.10031. [40 CFR 63.10006(j)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing stationary EGU (40 CFR 63.9982(a)(1)) (continued)*

b. Testing and Initial Compliance Requirements (continued)

- (19) Methods and other procedures for performance tests: Except as otherwise provided in §63.10007, the **Permittee** must conduct all required performance tests according to §63.7(d), (e), (f), and (h). The **Permittee** must also develop a site-specific test plan according to the requirements in §63.7(c). If the **Permittee** uses CEMS (Hg, HCl, SO₂, or other) to determine compliance with a 30-boiler operating day rolling average emission limit, the **Permittee** must collect data for all nonexempt unit operating conditions (see §63.10011(g) and Table 3 to Subpart UUUUU), except as otherwise provided in §63.10020(b). Emission rates determined during startup periods and shutdown periods (as defined in §63.10042) are not to be included in the compliance determinations, except as otherwise provided in §63.10000(c)(1)(vi)(B) and §63.10005(a)(2)(ii). If the **Permittee** conducts performance testing with test methods in lieu of continuous monitoring, the **Permittee** must operate the unit at maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. Maximum normal operating load will be generally between 90 and 100 percent of design capacity but should be representative of site specific normal operations during each test run. For establishing operating limits with particulate matter continuous parametric monitoring system (PM CPMS) to demonstrate compliance with a PM or non Hg metals emissions limit, operate the unit at maximum normal operating load conditions during the performance test period. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run. [40 CFR 63.10007(a)]
- (20) The **Permittee** must conduct each performance test according to the requirements in Table 5 to Subpart UUUUU. This includes traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification. [40 CFR 63.10007(b)]
- (21) If the **Permittee** chooses to comply with the filterable PM emission limit and demonstrate continuous performance using a PM CPMS for an applicable emission limit as provided for in §63.10000(c), the **Permittee** must also establish an operating limit according to §63.10011(b) and Tables 4 and 6 to Subpart UUUUU. Should the **Permittee** desire to have operating limits that correspond to loads other than maximum normal operating load, the **Permittee** must conduct testing at those other loads to determine the additional operating limits. [40 CFR 63.10007(c)]
- (22) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, where the concept of test runs does not apply, the **Permittee** must conduct a minimum of three separate test runs for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 2 to Subpart UUUUU. §63.10005(d) and (h), respectively, provide special instructions for conducting performance tests based on CEMS or sorbent trap monitoring systems, and for conducting emission tests for LEE qualification. [40 CFR 63.10007(d)]
- (23) To use the results of performance testing to determine compliance with the applicable emissions limits in Table 2 to Subpart UUUUU, proceed as specified in §63.10007(e)(1) through (3). [40 CFR 63.10007(e)]
- (24) If the **Permittee** elects to (or are required to) use CEMS to continuously monitor Hg, HCl, HF, SO₂, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the default values listed in §63.10007(f)(1) and (2) are available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of Subpart UUUUU, the default values are not considered to be substitute data. [40 CFR 63.10007(f)]



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Section VIII. Mercury and Air Toxics Standards (continued)

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1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

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b. Testing and Initial Compliance Requirements (continued)

- (25) Upon request, the **Permittee** shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements of §63.10007. [40 CFR 63.10007(g)]
- (25) Emissions averaging to comply with Subpart UUUUU: General eligibility. The **Permittee** may use emissions averaging as described in paragraph §63.10009(a)(2) as an alternative to meeting the requirements of §63.9991 for filterable PM, SO₂, HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis if:
 - (i) The **Permittee** has more than one existing EGU in the same subcategory located at one or more contiguous properties, belonging to a single major industrial grouping, which are under common control of the same person (or persons under common control); and
 - (ii) The **Permittee** uses CEMS (or sorbent trap monitoring systems for determining Hg emissions) or quarterly emissions testing for demonstrating compliance. [40 CFR 63.10009(a)(1)]
- (26) The **Permittee** may demonstrate compliance by emissions averaging among the existing EGUs in the same subcategory, if the **Permittee** averaged Hg emissions for EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory are equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh or if the **Permittee** averaged emissions of individual, other pollutants from other subcategories of such EGUs are equal to or less than the applicable emissions limit in Table 2, according to the procedures in this section. Note that except for Hg emissions from EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory, the averaging time for emissions averaging for pollutants is 30 days (rolling daily) using data from CEMS or a combination of data from CEMS and manual performance testing. The averaging time for emissions averaging for Hg from EGUs in the “unit designed for coal ≥8,300 Btu/lb” subcategory is 90 days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of monitoring data and data from manual performance testing. For the purposes of §63.10009(a)(2), 30- (or 90-day) group boiler operating days is defined as a period during which at least one unit in the emissions averaging group has operated 30 (or 90) days. The **Permittee** must calculate the weighted average emissions rate for the group in accordance with the procedures in §63.10009(a)(2) using the data from all units in the group including any that operate fewer than 30 (or 90) days during the preceding 30 (or 90) group boiler days. [40 CFR 63.10009(a)(2)]
- (27) Equations. The **Permittee** shall use the equations listed in §63.10009(b) when performing calculations for the EGU emissions averaging group. [40 CFR 63.10009(b)]
- (28) Separate stack requirements. For a group of two or more existing EGUs in the same subcategory that each vent to a separate stack, the **Permittee** may average filterable PM, SO₂, HF, HCl, non-Hg HAP metals, or Hg emissions to demonstrate compliance with the limits in Table 2 to Subpart UUUUU if the **Permittee** satisfies the requirements in paragraphs §63.10009(d) through (j). [40 CFR 63.10009(c)]
- (29) For each existing EGU in the averaging group, the emissions rate achieved during the initial performance test for the HAP being averaged must not exceed the emissions level that was being achieved 180 days after April 16, 2015, or the date on which emissions testing done to support your emissions averaging plan is complete (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier; or The control technology employed during the initial performance test must not be less than the design efficiency of the emissions control technology employed 180 days after April 16, 2015 or the date that you begin emissions averaging, whichever is earlier. [40 CFR 63.10009(d)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

b. Testing and Initial Compliance Requirements (continued)

- (30) The weighted-average emissions rate from the existing EGUs participating in the emissions averaging option must be in compliance with the limits in Table 2 to this subpart at all times following the compliance date specified 180 days after April 16, 2015, or the date on which the *Permittee* completes the emissions measurements used to support the emissions averaging plan (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that the *Permittee* begins emissions averaging, whichever is earlier. [40 CFR 63.10009(e)]
- (31) Emissions averaging group eligibility demonstration. The *Permittee* must demonstrate the ability for the EGUs included in the emissions averaging group to demonstrate initial compliance according to paragraph §63.10009(f)(1) or (2) using the maximum normal operating load of each EGU and the results of the initial performance tests. For this demonstration and prior to submitting the emissions averaging plan, if requested, the *Permittee* must conduct required emissions monitoring for 30 days of boiler operation and any required manual performance testing to calculate an initial weighted average emissions rate in accordance with Subpart UUUUU. Should the Administrator require approval, the *Permittee* must submit the proposed emissions averaging plan and supporting data at least 120 days before April 16, 2015. If the Administrator requires approval of the plan, the *Permittee* may not begin using emissions averaging until the Administrator approves the plan. [40 CFR 63.10009(f)]
- (32) The *Permittee* must determine the weighted average emissions rate in units of the applicable emissions limit on a 30 day rolling average (90 day rolling average for Hg) basis according to paragraphs §63.10009(g)(1) through (2) of this section. The first averaging period begins on 30 (or 90 for Hg) days after February 16, 2015 or the date that the *Permittee* begins emissions averaging, whichever is earlier. [40 CFR 63.10009(g)]
- (33) CEMS (or sorbent trap monitoring) use. If an EGU in the emissions averaging group uses CEMS (or a sorbent trap monitor for Hg emissions) to demonstrate compliance, the *Permittee* must use those data to determine the 30 (or 90) group boiler operating day rolling average emissions rate. [40 CFR 63.10009(h)]
- (34) Emissions testing. If the *Permittee* uses manual emissions testing to demonstrate compliance for one or more EGUs in the emissions averaging group, the *Permittee* must use the results from the most recent performance test to determine the 30 (or 90) day rolling average. The *Permittee* may use CEMS or sorbent trap data in combination with data from the most recent manual performance test in calculating the 30 (or 90) group boiler operating day rolling average emissions rate. [40 CFR 63.10009(i)]
- (35) Emissions averaging plan. The *Permittee* must develop an implementation plan for emissions averaging according to the following procedures and requirements in paragraphs §63.10009(j)(1) and (2). [40 CFR 63.10009(j)]
- (36) Monitoring, installation, operation, and maintenance requirements: For an affected unit that exhausts to the atmosphere through a single, dedicated stack, the *Permittee* shall either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere. [40 CFR 63.10010(a)(1)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – Existing stationary EGU (40 CFR 63.9982(a)(1)) (continued)

b. Testing and Initial Compliance Requirements (continued)

- (37) If the **Permittee** uses an oxygen (O₂) or carbon dioxide (CO₂) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O₂ or CO₂ concentrations shall be monitored at a location that represents emissions to the atmosphere, i.e., at the outlet of the EGU, downstream of all emission control devices. The CEMS must be installed, certified, maintained and operated according to 40 CFR Part 75. Only quality-assured O₂ or CO₂ data may be used in the emissions calculations. Part 75 substitute data values may not be used. [40 CFR 63.10010(b)]
- (38) If the **Permittee** is required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 2 to Subpart UUUUU, the **Permittee** must install, certify, operate and maintain the monitoring system and conduct ongoing quality-assurance testing of the system according to Part 75. Only unadjusted, quality-assured flow rate data may be used in the emissions calculations. Bias adjustment factors may not be applied to the flow rate data and substitute flow rate data may not be used in the calculations. [40 CFR 63.10010(c)]
- (39) If the **Permittee** is required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 2 to Subpart UUUUU, the **Permittee** must install, certify, operate, and maintain a moisture monitoring system in accordance with Part 75. Alternatively, for coal-fired units, appropriate fuel-specific default moisture values from §75.11(b) may be used to estimate the moisture content of the stack gas. If a moisture monitoring system is installed and operated, substitute moisture data may not be used in the emissions calculations. [40 CFR 63.10010(d)]
- (40) If the **Permittee** uses an HCl and/or HF CEMS, the **Permittee** must install, certify, operate, maintain, and quality-assure the data from the monitoring system in accordance with Appendix B to Subpart UUUUU. The **Permittee** must calculate and record a 30-boiler operating day rolling average HCl or HF emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl or HF emission rates in the preceding 30 boiler operating days (see section 9.4 to Appendix B to Subpart UUUUU). [40 CFR 63.10010(e)]
- (41) If the **Permittee** uses an SO₂ CEMS, the **Permittee** must install the monitor at the outlet of the EGU, downstream of all emission control devices, and must certify, operate and maintain the CEMS according to Part 75. The SO₂ CEMS shall be operated and emissions calculated in accordance with §63.10010(f)(2) through (4). [40 CFR 63.10010(f)]
- (42) If the **Permittee** uses a Hg CEMS or a sorbent trap monitoring system, the **Permittee** must install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with Appendix A to Subpart UUUUU. Emissions shall be calculated in accordance with the procedures in §63.10010(g). [40 CFR 63.10010(g)]
- (43) If the **Permittee** uses a PM CPMS to demonstrate continuous compliance with an operating limit, the **Permittee** must install, calibrate, maintain, and operate the PM CPMS and record the output of the system as specified in §63.10010(h)(1) through (5). All the data collected during all boiler operating hours must be used in assessing compliance with the operating limit, with the exception of data described in §63.10010(h)(6)(i) through (iii). The **Permittee** must record and make available upon request results of PM CPMS system performance audits, as well as the dates and duration of periods from when the PM CPMS is out of control until completion of the corrective actions necessary to return the PM CPMS to operation consistent with the **Permittee's** site-specific monitoring plan. [40 CFR 63.10010(h)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

b. Testing and Initial Compliance Requirements (continued)

- (44) If the **Permittee** chooses to comply with the PM filterable emissions limit in lieu of metal HAP limits, the **Permittee** may choose to install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in §63.10010(i)(1) through (5). The compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable to the unit in Table 2 of Subpart UUUUU. [40 CFR 63.10010(i)]
- (45) The **Permittee** may choose to comply with the metal HAP emissions limits using CEMS approved in accordance with §63.7(f), as an alternative to the performance test method specified in this rule. Specific requirements pertaining to this alternative are in §63.10010(j). [40 CFR 63.10010(j)]
- (46) The **Permittee** must install, certify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the PM or non-mercury metals work practice standards for startup periods as specified in §63.10010(l)(1) through (5). [40 CFR 63.10010(l)]
- (46) Demonstrating initial compliance with the emissions limits and work practice standards: The **Permittee** must demonstrate initial compliance with each emissions limit that applies to **S2.001** and **S2.002**, each, by conducting performance testing. If the **Permittee** is subject to an operating limit in Table 4 to Subpart UUUUU, the **Permittee** demonstrates initial compliance with HAP metals or filterable PM emission limit(s) through performance stack tests. If the **Permittee** elects to use a PM CPMS to demonstrate continuous performance, the **Permittee** must also establish a site-specific operating limit, in accordance with Table 4 of subpart UUUUU, §63.10007, and Table 6 to Subpart UUUUU. The **Permittee** may use only the parametric data recorded during successful performance tests (i.e., tests that demonstrate compliance with the applicable emissions limits) to establish an operating limit. [40 CFR 63.10011(a) and (b)]
- (48) If the **Permittee** uses CEMS or sorbent trap monitoring systems to measure a HAP (e.g., Hg or HCl) directly, the first 30-boiler operating day (or, if alternate emissions averaging is used for Hg, the 90-boiler operating day) rolling average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 2 to Subpart UUUUU. [40 CFR 63.10011(c)(1)]
- (49) For a unit that uses a CEMS to measure SO₂ or PM emissions for initial compliance, the first 30-boiler operating day average emission rate obtained with certified CEMS after the applicable date in §63.9984 (or, if applicable, prior to that date, as described in §63.10005(b)(2)), expressed in units of the standard, is the initial performance test. Initial compliance is demonstrated if the results of the performance test meet the applicable SO₂ or filterable PM emission limit in Table 2 to Subpart UUUUU. [40 CFR 63.10011(c)(2)]
- (50) For candidate LEE units, use the results of the performance testing described in 63.10005(h) to determine initial compliance with the applicable emission limits(s) in Table 2 to this subpart and to determine whether the unit qualifies for LEE status. [40 CFR 63.10011(d)]
- (51) The **Permittee** must submit a Notification of Compliance Status containing the results of the initial compliance demonstration, according to §63.10030(e). [40 CFR 63.10011(e)]
- (52) The **Permittee** must follow the startup or shutdown requirements given in Table 3 of Subpart UUUUU for each coal-fired EGU. [40 CFR 63.10011(g)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

c. Continuous Compliance Requirements

- (1) Monitoring and collecting data to demonstrate continuous compliance. The *Permittee* must monitor and collect data according to §63.10020 and the site-specific monitoring plan required by §63.10000(d). [40 CFR 63.10020(a)]
- (2) The *Permittee* must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for permits of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The *Permittee* is required to conduct monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [40 CFR 63.10020(b)]
- (3) The *Permittee* may not use data recorded during EGU startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities, in calculations used to report emissions or operating levels. The *Permittee* must use all the data collected during all other periods in assessing the operation of the control device and associated control system. [40 CFR 63.10020(c)]
- (4) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements. [40 CFR 63.10020(d)]
- (5) The *Permittee* must follow the additional requirements as stated in §63.10020(e) during startup periods or shutdown periods for demonstrating continuous compliance. [40 CFR 63.10020(e)]
- (6) Demonstrating continuous compliance with the emission limitations, operating limits, and work practice standards. The *Permittee* must demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 2 through 4 of Subpart UUUUU that applies to the each EGU according to the monitoring specified in Table 6 and 7 to Subpart UUUUU and §63.10021(b) through (g). [40 CFR 63.10021(a)]
- (7) Except as otherwise provided in §63.10020(c), if the *Permittee* uses a CEMS to measure SO₂, PM, HCl, HF, or Hg emissions, or uses a sorbent trap monitoring system to measure Hg emissions, the *Permittee* must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO₂, O₂, or moisture systems) to calculate the arithmetic average emission rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 in §63.10021(b) to determine the 30- (or, if applicable, 90-) boiler operating day rolling average. [40 CFR 63.10021(b)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing stationary EGU* (40 CFR 63.9982(a)(1)) (continued)

c. Continuous Compliance Requirements (continued)

- (9) If the *Permittee* uses quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 2 to Subpart UUUUU, the *Permittee* must conduct the performance test as defined in Table 5 to Subpart UUUUU, and calculate the results of the testing in units of the applicable standard. The *Permittee* may skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year. [40 CFR 63.10021(d)]
- (10) If the *Permittee* must conduct periodic performance tune-ups of the EGU, as specified in §63.10021(e)(1) through (9), the *Permittee* must perform the first tune-up as part of the initial compliance demonstration. Notwithstanding this requirement, the *Permittee* may delay the first burner inspection until the next scheduled unit outage, provided the *Permittee* meets the requirements of §63.10005. Subsequently, the *Permittee* must perform an inspection of the burner at least once every 36 calendar months, unless the EGU employs neural network combustion optimization during normal operations, in which case an inspection of the burner and combustion controls must be performed at least once every 48 calendar months. [40 CFR 63.10021(e)]
- (11) The *Permittee* must submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to Subpart UUUUU. The electronic reports required by appendices A and B to Subpart UUUUU must be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under §63.10031. [40 CFR 63.10021(f)]
- (12) The *Permittee* must report each instance in which the *Permittee* did not meet an applicable emissions limit or operating limit in Tables 2 through 4 to Subpart UUUUU or failed to conduct a required tune-up. These instances are deviations from the requirements of Subpart UUUUU. These deviations must be reported according to §63.10031. [40 CFR 63.10021(g)]
- (13) The *Permittee* must follow the startup or shutdown requirements as given in Table 3 to Subpart UUUUU for each coal-fired EGU and as specified in §63.10021(h)(1) through (4). [40 CFR 63.10021(h)]
- (14) The *Permittee* must provide reports as specified in §63.10031, concerning activities and periods of startup and shutdown. [40 CFR 63.10021(i)]
- (15) Demonstrating continuous compliance under the emissions averaging provision. Following the compliance date, the *Permittee* must demonstrate compliance with Subpart UUUUU on a continuous basis by meeting the requirements of paragraphs §63.10022(a)(1) through (4). [40 CFR 63.10022(a)]
- (16) Any instance where the *Permittee* fails to comply with the continuous monitoring requirements in paragraphs §63.10022(a)(1) through (3) is a deviation. [40 CFR 63.10022(b)]
- (17) Establishing PM CPMS operating limit and determining compliance with it. During the initial performance test or any such subsequent performance test that demonstrates compliance with the filterable PM individual non-mercury HAP metals, or total non-mercury HAP metals limit in Table 2, record all hourly average output values (e.g., milliamps, stack concentration, or other raw data signal) from the PM CPMS for the periods corresponding to the test runs (e.g., nine 1-hour average PM CPMS output values for three 3-hour test runs). [40 CFR 63.10023(a)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

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c. Continuous Compliance Requirements (continued)

- (18) Determine the operating limit as the highest 1-hour average PM CPMS output value recorded during the performance test. The **Permittee** must verify an existing or establish a new operating limit after each repeated performance test. [40 CFR 63.10023(b)]
- (19) The **Permittee** must operate and maintain the process and control equipment such that the 30 operating day average PM CPMS output does not exceed the operating limit determined in §63.10023(a) and (b). [40 CFR 63.10023(c)]

d. Notification, reports, and records

- (1) Notifications to submit and when. The **Permittee** must submit all of the notifications in §63.7(b) and (c), §63.8(e), (f)(4) and (6), and §63.9(b) through (h) that apply to the **Permittee**, by the dates specified. [40 CFR 63.10030(a)]
- (2) As specified in §63.9(b)(2), if the **Permittee** started up the affected source before April 16, 2012, the **Permittee** must submit an Initial Notification not later than 120 days after April 16, 2012. [40 CFR 63.10030(b)]
- (3) When the **Permittee** is required to conduct a performance test, the **Permittee** must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [40 CFR 63.10030(d)]
- (3) When the **Permittee** is required to conduct an initial compliance demonstration as specified in §63.10011(a), the **Permittee** must submit a Notification of Compliance status according to §63.9(h)(2)(ii). The Notification of Compliance Status report must contain all the information specified in §63.10030(e)(1) through (7), as applicable. [40 CFR 63.10030(e)]
- (4) Reports to submit and when. The **Permittee** must submit each report in Table 8 to Subpart UUUUU that applies to the **Permittee**. If the **Permittee** is required to (or elects to) continuously monitor Hg and/or HCl and/or HF emissions, the **Permittee** must also submit the electronic reports required under Appendix A and/or Appendix B to Subpart UUUUU, at the specified frequency. [40 CFR 63.10031(a)]
- (5) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), the **Permittee** must submit each report by the date in Table 8 to Subpart UUUUU and according to the requirements in §63.10031(b)(1) through (5). [40 CFR 63.10031(b)]
- (6) The compliance report must contain the information required in §63.10031(c)(1) through (5). [40 CFR 63.10031(c)]
- (7) For each excess emissions occurring at an affected source where a CMS is being used to comply with that emission limit or operating limit, the **Permittee** must include the information required in §63.10(e)(3)(v) in the compliance report specified in §63.10031(c). [40 CFR 63.10031(d)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

d. Notification, reports, and records (continued)

- (8) Each affected source that has obtained a Title V operating permit pursuant to Part 70 or Part 71 must report all deviations as defined in Subpart UUUUU in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to Subpart UUUUU along with, or as part of, the semiannual monitoring required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in Subpart UUUUU, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR 63.10031(e)]
- (9) As of January 1, 2012, and within 60 days after the date of completing each performance test, the *Permittee* must submit the results of the performance tests required by Subpart UUUUU to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/tn/chief/ert/index.html>). Only data collected using those test methods on the ERT website are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described above. At the discretion of the delegated authority, the *Permittee* must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. The *Permittee* shall also comply with reporting requirements in §63.10031(f)(1) through (5), pertaining to reports of CEMS performance evaluations; quarterly compliance and emissions data reporting for PM CEMS, PM CPMS and approved alternative monitoring using a HAP metals CEMS; and reports for SO₂ CEMS, Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor). [40 CFR 63.10031(f)]
- (10) If the *Permittee* had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused, or may have caused, any applicable emission limitation to be exceeded. [40 CFR 63.10031(g)]
- (11) Records the *Permittee* must keep. The *Permittee* must keep records according to §63.10032(a)(1) and (2). If the *Permittee* is required to (or elects to) continuously monitor Hg and/or HCl and/or HF emissions, the *Permittee* must also keep the records required under appendix A and/or appendix B to Subpart UUUUU. [40 CFR 63.10032(a)]
- (12) For each CEMS and CPMS, the *Permittee* must keep records according to §63.10032(b)(1) through (4). [40 CFR 63.10032(b)]
- (13) The *Permittee* must keep the records required in Table 7 to Subpart UUUUU, including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to the *Permittee*. [40 CFR 63.10032(c)]



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Section VIII. Mercury and Air Toxics Standards (continued)

A. Mercury and Air Toxics Standards for Emission Units #S2.001 and S2.002

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (*Federal Only Requirement*) NESHAP for *Coal and Oil-Fired Utility Steam Generating Units (EGU)*, 40 CFR Part 63, Subpart UUUUU (40 CFR 63.9980, et. seq.) – *Existing* stationary EGU (40 CFR 63.9982(a)(1)) (continued)

d. Notification, reports, and records (continued)

- (14) For each EGU subject to an emission limit, the *Permittee* must also keep the records in §63.10032(d)(1) through (3). [40 CFR 63.10032(d)]
- (15) If the *Permittee* elects to average emissions consistent with §63.10009, the *Permittee* must additionally keep a copy of the emissions averaging implementation plan required in §63.10009(g), all calculations required under §63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with §63.10022. [40 CFR 63.10032(e)]
- (16) The *Permittee* must keep records of the occurrence and duration of each startup and/or shutdown as specified in §63.10032(f)(1) through (4). [40 CFR 63.10032(f)]
- (17) The *Permittee* must keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.10032(g)]
- (18) The *Permittee* must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.10032(h)]
- (19) The *Permittee* must keep records of the type(s) and amount(s) of fuel used during each startup and shutdown. [40 CFR 63.10032(i)]
- (20) Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. Each record must be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). Records can be kept off site for the remaining 3 years. [40 CFR 63.10033]
- (21) Other requirements and information. The *Permittee* shall comply with all applicable General Provisions in 40 CFR 63.1 through 63.15, as shown in Table 9 to Subpart UUUUU. [40 CFR 63.10040]

*****End of Mercury and Air Toxics Standards Conditions*****



Bureau of Air Pollution Control

Facility ID No. A0375

Permit No. AP4911-0457.03

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company (dba NV Energy) – North Valmy Generating Station, as Permittee

Section IX. Emission Caps

A. No Emission Caps Defined

*******End of Emission Caps*******

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Section X. Surface Area Disturbance Conditions

- A. Dust Control Plan (NRS 445B.230.6)
Permittee may not cause or permit the construction, repair, or demolition work, or the use of unpaved or untreated areas without applying all such measures as may be required by the Director to prevent particulate matter from becoming airborne.
- B. *Permittee* will control fugitive dust in accordance with the dust control plan entitled “**Surface Area Disturbance Permit Fugitive Dust Control and Process Equipment Emission Control Plan - North Valmy Generating Station**”, dated **October 5, 2012**.
- C. Fugitive Dust (NAC 445B.22037)
 - 1. *Permittee* may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
 - 2. Except as otherwise provided in subsection 4, *Permittee* may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
 - 3. Except as provided in subsection 4, *Permittee* may not disturb or cover 5 acres or more of land or its topsoil until *Permittee* has obtained an Operating Permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
 - 4. The provisions of subsections 2 and 3 do not apply to:
 - a. Agricultural activities occurring on agricultural land; or
 - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.
- D. *Permittee* will comply with all applicable dust control requirements set forth in 40 CFR Part 60, Subpart Y.

*******End of Surface Area Disturbance Conditions*******



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Section XI. Schedules of Compliance

A. **Not applicable.**

*******End of Schedules of Compliance*******

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CLASS I AIR QUALITY OPERATING PERMIT

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Section XII. Amendments

- A. Minor Revision 05/2015:
- Sys 1 and 2 – CAM frequency updated to 15 minutes;
 - Sys 3A – Baghouse changed to Over-belt Cartidge Collector, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf, and flowrate increased from 764 dscfm to 1529 dscfm;
 - Sys 3B - System two overbelt cartridge collectors will replace the previous 3B control of a baghouse (new emission limits & stack parameters);
 - Sys 3C - Baghouse changed to Over-belt Cartidge Collector, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf, and PM/PM10 emissions decreased from 0.44 lb/hr to 0.0 lb/hr (into a building);
 - Sys 3D - Baghouse changed to central Cartidge Collector, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf, and PM/PM10 emissions decreased from 1.75 lb/hr to 0.66 lb/hr;
 - Sys 3E - The baghouse for Transfer tower B has been changed to two overbelt cartridge collectors (new emission limits & stack parameters);
 - Sys 4A & B and 5A & B Loading - Baghouse changed to Cartidge Collector Bin Vent, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf, and PM/PM10 emissions decreased from 0.14 lb/hr to 0.07 lb/hr;
 - Sys 6 Loading, 6A, 7 Loading, and 7A - Dust collector changed to powered cartridge bin vent grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf, PM/PM10 emissions decreased from 0.38 lb/hr to 0.19 lb/hr, and CAM requirements removed;
 - Sys 8A & B Loading - Baghouse changed to Cartidge Bin Vent, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf and PM/PM10 emissions decreased from 0.41 lb/hr to 0.21 lb/hr;
 - Sys 9A & B Loading - Baghouse changed to Cartidge Collector Bin Vent, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf and PM/PM10 emissions decreased from 0.74 lb/hr to 0.37 lb/hr;
 - Sys 10A & B Loading - Baghouse changed to Cartidge Collector Bin Vent, grainloading changed from 0.02 gr/dscf to 0.01 gr/dscf and PM/PM10 emissions decreased from 0.14 lb/hr to 0.07 lb/hr;
 - Sys 11 & 12 – CAM revised to monitor conductivity.
 - Sys 18 & 19 – New DSI units
- B. Minor Revision (OPTC Rollover to Existing Class I) Air Case 8736 09/2019:
- Sys 12 – The cooling tower was replaced with the new cooling tower that has been rolled over from Class I OPTC AP4911-3425. PM/PM₁₀ emission limits decreased from 33.84 lb/hr (148.21 tons/yr) to 27 lb/hr (118.3 tons/yr). Added PM_{2.5} emission limits.
 - Sys 18 and 19 – Incorporated the modifications from Notice of Authorized Change (dated February 7, 2017). Changed throughput material from “Lime” to “Sorbent (Lime, Trona, or Soda Ash) or Sorbent mixed with Activated Carbon”.
- C. Reopen-Revision Air Case 11107 04/2022:
- Sys 01 & 02 – Added language to Section XI Schedules of Compliance to require the shutdown and permanently cease operation of these units by December 31, 2028.
- D. Minor Revision Air Case 11509 1/2024:
- Removed System 16 Emergency Diesel Generators, 375 HP Output (S2.029).
 - Added System 16 Emergency Diesel Generator (539 HP, CAT, Model C13) (S2.037).
- E. PSD Major Modification Air Case 12118 08/2025:
- Added System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing) (S2.001A).
 - Added System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing) (S2.002A).
- F. Minor Revision Air Case 12720 02/2026:
- Removed the annual hours of operation restriction for System 01A – Unit #1 Boiler (Alternate Operating Scenario – Natural Gas Firing) (S2.001A), and added maximum allowable annual fuel consumption rate of 15,557,725,720.0 scf/yr
 - Removed the annual hours of operation restriction for System 02A – Unit #2 Boiler (Alternate Operating Scenario – Natural Gas Firing) (S2.002A), and added maximum allowable annual fuel consumption rate of 17,511,057,100.0 scf/yr
- G. PSD Major Modification Air Case 12313 XX/2026:
- Added System 20 – Unit #3 Combustion Turbine (General Electric) (S2.038).
 - Added System 21 – Unit #4 Combustion Turbine (General Electric) (S2.039).
 - Added System 22 – Unit #5 1,750 kWe Emergency Diesel Generator (S2.040).
 - Added System 23 - Unit #6 176 HP Emergency Fire Water Pump Engine (S2.041).



Bureau of Air Pollution Control

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Section XII. Amendments (continued)

This permit:

1. **Is non-transferable. (NAC 445B.287.4) Part 70 Program**
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only Requirement)**
3. **Will expire and be subject to renewal five (5) years from August 17, 2015.**
(NAC 445B.315 and 3443.1) Part 70 Program
4. **A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.323.2) Part 70 Program**
5. **Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)(State Only Requirement)**

THIS PERMIT EXPIRES ON: August 17, 2020

Signature _____

Issued by: Jaimie Mara, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687-9343 **Date:** XXXX XX, 2026

Bureau of Air Pollution Control



CLASS I NON-PERMIT EQUIPMENT LIST

Appended to Sierra Pacific Power Company d/b/a NV Energy - North Valmy Generating Station
Facility #A0375 Permit #AP4911-0457.03

Emission Unit #	Emission Unit Description
IA1.001	Hydrogen/Carbon Dioxide/Nitrogen Purge System
IA1.002	Deaerator Vents
IA1.003	10,000 Gallon Above-ground Storage Tank (AST) - Gasoline
IA1.004	10,000 Gallon AST - Diesel
IA1.005	265 Gallons Unit #1 Fire Pump AST – Diesel
IA1.006	265 Gallons Unit #2 Fire Pump AST - Diesel
IA1.007	565 Gallons Unit #1 Emergency Generator AST - Diesel
IA1.008	500 Gallons Unit #2 Emergency Generator AST - Diesel
IA1.009	500 Gallons Red Dye AST - Diesel
IA1.010	1,800 Gallons Contractor Off-Road AST – Diesel
IA1.011	1,800 Gallons Contractor AST - Diesel
IA1.012	Cold Degreasing Station (5 Units)
IA1.013	Master MH-175-KFA #1 Space Heater
IA1.014	Master MH-175-KFA #2 Space Heater
IA1.015	Mr. Heater Contractor Series #1 Space Heater
IA1.016	Mr. Heater Contractor Series #2 Space Heater
IA1.017	Dura Heat #1 Space Heater
IA1.018	Dura Heat #2 Space Heater
IA1.019	Dura Heat #3 Space Heater
IA1.020	Master #1 Space Heater
IA1.021	Master #2 Space Heater

Note: The equipment listed on this attachment are subject to all applicable requirements of the NAC and ASIP.