THE NAVAJO NATION

BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

Navajo Nation Environmental Protection Agency – Office of the Executive Director
Post Office Box 339, Window Rock, AZ 86515 • Bldg # 2695 Window Rock Blvd
Telephone (928) 871-7692, Fax (928) 871-7996
www.navajonationepa.org

TITLE V PERMIT REOPENING

PERMIT #:	FACILITY NAME:	LOCATION:	COUNTY:	STATE:
NN-ROP-05-06	NAVAJO GENERATING STATION	PAGE	COCONINO	AZ

ISSUE DATE:	EXPIRATION DATE:	AFS PLANT ID:	PERMITTING AUTHORITY:
07/03/2008	07/03/2013	04-005-N0423	NNEPA

ACTION/STATUS: PART 71 OPERATING PERMIT REOPENING

Robert K. Talbot, Plant Manager
Navajo Generating Station
P.O. Box 850
Page, Arizona 86040
(928) 645-6217

Re: Title V Operating Permit Reopen for Navajo Generating Station

Dear Mr. Talbot:

NNEPA reopened the Title V permit NN-ROP-05-06 to incorporate two separate applicable requirements into the existing permit: Conditions II.A, Federal Implementation Plan Requirements, and II.C, CAM Requirements. Also, the language of Condition IV.C has been modified to account for the CAM Requirements. These are the only portions of the permit affected by this permit reopen. A revised Table of Contents is attached for clarification. NNEPA has used this opportunity to add Condition II.B, PSD Requirements, as an Administrative Amendment pursuant to NNOPR § 405(C) and 40 C.F.R. § 71.7(d).

The federal operating permit program provides for a permit reopening for cause in certain circumstances. One of the circumstances requiring reopening, as described in 40 C.F.R. § 71.7(f)(1)(i), NNOPR § 406 and Condition IV.L of the existing permit, is if "Additional applicable requirements under the Act become applicable to a major Part 71 source with a remaining permit term of 3 or more years." On May 11, 2010, NNEPA provided a notice of intent to reopen the NGS Title V Permit (NN-ROP-05-06) to add the FIP and CAM requirements.

We have enclosed the Title V Permit Reopening and the accompanying Statement of Basis with a clear understanding that the changes made in the permit will not affect the permit terms that became effective July 03, 2008 and expire on July 3, 2013. If you have any questions regarding this matter, please contact Charlene Nelson at (928) 729-4247 or charlenenelson@navajo-nsn.gov.

OCT 28 2011
Date

Stephen B. Etsitty
Executive Director
Navajo Nation Environmental Protection Agency

THE NAVAJO NATION

BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

Navajo Nation Environmental Protection Agency – Air Quality Control/Operating Permit Program
Post Office Box 529, Fort Defiance, AZ 86504 • Rt.112 North, Bldg # 2837
Telephone (928) 729-4096, Fax (928) 729-4313

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Abbreviations and Acronyms

Administrator	Administrator of the U.S. EPA
AR	Acid Rain
ARP	Acid Rain Program
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COFA	Close-Coupled Overfire Air
COMS	Continuous Opacity Monitoring System
DC	Dust Collector
EIP	Economic Incentives Program
ESP	Electro Static Precipitator
FGD	Flue Gas Desulfurization
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
Id. No.	Identification Number
kg	kilogram
lb	pound
MACT	Maximum Achievable Control Technology
MVAC	Motor Vehicle Air Conditioner
Mg	megagram
MMBtu	million British Thermal Units
MW	Megawatts
mo	month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NNEPA	Navajo Nation Environmental Protection Agency
NNOPR	Navajo Nation Operating Permit Regulations
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter
PM-10	Particulate matter less than 10 microns in diameter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
psia	pounds per square inch absolute
RMP	Risk Management Plan
SNAP	Significant New Alternatives Program
SO_2	Sulfur Dioxide
TSP	Total Suspended Particulate
US EPA	United States Environmental Protection Agency
VCA	Voluntary Compliance Agreement
VOC	Volatile Organic Compounds

I. Source Identification

- Managing Participant Name: Salt River Project Agricultural Improvement and Power District (SRP)*
- Managing Participant Mailing Address: P.O. Box 52025, PAB 352
  Phoenix, Arizona 85072-2025

*Note: This facility is co-owned by 6 entities. SRP is listed as the managing participant in this permit since they act as the facility operator, and have accepted the responsibility to obtain environmental permits for Navajo Generating Station, including an Acid Rain permit and Part 71 Permit. In addition to SRP, the other 5 co-owners of this facility are:

1. Los Angeles Department of Water and Power (LADWP)
2. Arizona Public Service Company (APS)
3. Tucson Electric Power (TEP)
4. Nevada Power Company (NPC)
5. U.S. Bureau of Reclamation (USBR)

- Plant Name: Navajo Generating Station
- Plant Location: 5 miles east of Page, AZ off U.S. Highway 98
  Page, Arizona
- County: Coconino, Arizona
- EPA Region: 9
- Reservation: Navajo Nation
- Tribe: Navajo
- Company Contact: Paul Ostapuk Phone: (928) 645-6577
- Responsible Official: Robert K. Talbot Phone: (928) 645-6217
- EPA Contact: Roger Kohn Phone: (415) 972-3973
- Tribal Contacts: Eugenia Quintana Phone: (928) 871-7800
  Charlene Nelson Phone: (928) 729-4247
- SIC Code: 4911
- AFS Plant Identification Number: 04-005-N0423
- Description of Process: The facility is 2,250 Net Megawatts coal fired power plant.
- Significant Emission Units:

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
U1/ Stack S1	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S1 is equipped with SO_2, CO, and NO_X CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2011); FGD system SCBR1 (1999); ESP1

U2/ Stack S2	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S2 is equipped with SO_2, CO, and NO_X CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2010); FGD system SCBR2 (1998); ESP2
U3/ Stack S3	One (1) pulverized coal-fired boiler, using No. 2 fuel oil for ignition fuel. Stack S3 is equipped with SO_2, CO, and NO_X CEMS, and a COMS.	7,725 MMBtu/hr; 750 Net MW	1970	LNB/SOFA (2009); FGD system SCBR3 (1997); ESP3
AUX A	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
AUX B	One (1) auxiliary boiler; using No. 2 fuel oil as fuel	308 MMBtu/hr	1970	N/A
Coal Handling Operations				
CT1	One (1) railcar unloading operation	10,000 tons/hr	1970	N/A
L1 - L12	Twelve (12) hopper feeders	2,400 tons/hr (total)	1970	N/A
BC-1 through BC-4	Four (4) conveyors to the yard surge bin	1,800 tons/hr (each)	1970	DC-8
BC-4A	One (1) conveyor to the batch weight system	100 tons/hr	1970	DC-8
BFD-5A, BC-5	Two (2) reclaim conveyors	1,800 tons/hr (each)	1970	DC-8
BC-6	One (1) conveyor to the yard surge bin	1,500 tons/hr	1970	DC-8
BC-6A through BC-6C	Three (3) conveyors to the stacker/reclaimer	1,800 tons/hr (each)	1970	N/A
BC-7	One (1) conveyor to the emergency reclaim hopper	1,500 tons/hr	1970	N/A
YSB-1	One (1) yard surge bin	1,800 tons/hr	1970	DC-8
BC-8A BC-8B	Two (2) conveyors to plant surge bin	1,500 tons/hr (each)	1970	DC-8
PSB-1	One (1) plant surge bin	3,000 tons/hr	1970	DC-5
BC-9A BC-9B	Two (2) conveyors to the coal silos for boilers U1 and U2	1,500 tons/hr (each)	1970	DC-5
BC-10A BC-10B	Two (2) conveyors to the coal silos for boiler U3	1,500 tons/hr (each)	1970	DC-5
CC-1A through CC-9A; CC-1B through CC-9B	Three (3) enclosed cascading conveying systems to the coal storage silos for boilers U1, U2, and U3	1,500 tons/hr (each)	1970	DC-1 through DC-4, DC-6, and DC-7
Silos 1A through 1G	Seven (7) storage silos for boiler U1	3,000 tons/hr (each)	1970	DC-1, DC-2, and baghouse PR-1.
Silos 2A through 2G	Seven (7) storage silos for boiler U2	3,000 tons/hr (each)	1970	DC-3, DC-4, and baghouse PR-2.
Silos 3A through 3G	Seven (7) storage silos for boiler U3	3,000 tons/hr (each)	1970	DC-6, DC-7, and baghouse PR-3.
CS	Outdoor coal storage piles	3,300 tons/hr (total)	1970	water suppression
Limestone handling system associated with the FGD systems				

Unloading Bay A and B	Two (2) truck unloading operations	38 tons/hr (each)	1997	N/A
O-LSH-HOP-A	One (1) limestone unloading hopper	300 tons/hr	1997	DC-9
O-LSH-HOP-B	One (1) limestone unloading hopper	300 tons/hr	1997	DC-10
O-LSH-FDR-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-FDR-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-CNV-A	One (1) conveyor	300 tons/hr	1997	DC-9
O-LSH-CNV-B	One (1) conveyor	300 tons/hr	1997	DC-10
O-LSH-SILO-A and B	Two (2) limestone storage silos	300 tons/hr (each)	1997	DC-11
O-LSP-FDR-A and B	Two (2) enclosed feeders to the slurry preparation system	36 tons/hr (each)	1997	N/A
O-LSP-CNV-A and B	Two (2) enclosed cleanout conveyors	5 tons/hr (each)	1997	N/A
O-LSP-MILL-A and B	Two (2) ball mills	36 tons/hr (each)	1997	N/A
LS	Limestone storage piles	600 tons/hr (total)	1997	water suppression
Fly ash handling system				
Silo 1	One (1) fly ash bin for boilers U1 and U2	46 tons/hr	1970	DC-TD and DC-S1/2
Silo 2	One (1) fly ash bin for boiler U3	46 tons/hr	1970	DC-S3
Silo 1 and 2 Loading	Two (2) partially enclosed fly ash truck loading operations	38 tons/hr (each)	1970	N/A
DWB-A through DWB-F	Six (6) bottom ash truck loading operations. The bottom ash is processed in a wet form	46 tons/hr (each)	1970	N/A
Soda ash/lime handling systems				
SAB-1A, SAB-2A, SAB-1B, SAB-2B	Four (4) soda ash storage bins	0.4 tons/hr (each)	1970	dust collector BH-6
LB-1 and LB-2	Two (2) lime storage bins	0.57 tons/hr (each)	1970	dust collector BH-7
Miscellaneous Operations				
	Six (6) cooling towers	813,000 gal/min (total)	1970	N/A
TR	Fugitive emissions from unpaved roads	N/A	1970	water suppression

Note: LNB : Low-NO_X Burner, SOFA: Separated Over-fire Air.

II. Requirements for Specific Units

II.A. Federal Implementation Plan Requirements. The following requirements apply to Units 1, 2, and 3, coal and ash handling equipment, and the two auxiliary steam boilers at Navajo Generating Station. [40 CFR § 49.5513]

1. Definitions. The following definitions apply to Section II.A of this permit [40 CFR § 49.5513(c)]:

a. Absorber upset transition period means the 24-hour period following an upset of an SO_2 absorber module which resulted in the absorber being taken out of service.

b. Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during certain malfunction episodes.

c. Malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.

d. Owner or Operator means any person who owns, leases, operates, controls or supervises the NGS, any of the fossil fuel-fired, steam-generating equipment at the NGS, or the auxiliary steam boilers at the NGS.

e. Plant-wide means a weighted average of particulate matter and SO_2 emissions for Units 1, 2, and 3 based on the heat input to each unit as determined by 40 CFR part 75.

f. Point source means any crusher, any conveyor belt transfer point, any pneumatic material transferring, any baghouse or other control devices used to capture dust emissions from loading and unloading, and any other stationary point of dust that may be observed in conformance with Method 9 of Appendix A–4 of 40 CFR Part 60 (excluding stockpiles).

g. Regional Administrator means the Regional Administrator of the Environmental Protection Agency Region 9 or his/her authorized representative.

h. Startup shall mean the period from start of fires in the boiler with fuel oil, to the time when the electrostatic precipitator is sufficiently heated such that the temperature of the air preheater inlet reaches 400 degrees Fahrenheit and when a unit reaches 300 MW net load. Proper startup procedures shall include energizing the electrostatic precipitator prior to the combustion of coal in the boiler. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during startup episodes. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.

i. Shutdown shall begin when the unit drops below 300 MW net load with the intent to remove the unit from service. The precipitator shall be maintained in service until boiler fans are disengaged. This rule provides an affirmative defense to actions for penalties brought for excess emissions that arise during shutdown episodes. An affirmative defense is not available if during the period of excess emissions, there was an exceedance of the relevant ambient air quality standard that could be attributed to the emitting source.

j. Oxides of nitrogen (NO_X) means the sum of nitrogen oxide (NO) and nitrogen dioxide (NO_2) in the flue gas, expressed as nitrogen dioxide.

2. Emissions Limitations and Control Measures [40 CFR § 49.5513(d)]:

a. Sulfur oxides (SO_2). No owner or operator shall discharge or cause the discharge of sulfur oxides into the atmosphere from Units 1, 2, or 3 in excess of 1.0 pound per million British thermal units (lb/MMBtu) averaged over any three (3) hour period, on a plant-wide basis.

b. Particulate matter (PM). No owner or operator shall discharge or cause the discharge of particulate matter into the atmosphere in excess of 0.060 lb/MMBtu, on a plant-wide basis, as averaged from at least three sampling runs per stack, each at a minimum of 60 minutes in duration, each collecting a minimum sample of 30 dry standard cubic feet.

c. Dust. Each owner or operator shall operate and maintain the existing dust suppression methods for controlling dust from the coal handling and storage facilities. Within ninety (90) days after promulgation of these regulations the owner or operator shall submit to the Regional Administrator a description of the dust suppression methods for controlling dust from the coal handling and storage facilities, fly ash handling and storage, and road sweeping activities. Each owner or operator shall not emit dust with an opacity greater than 20% from any crusher, grinding mill, screening operation, belt conveyor, truck loading or unloading operation, or railcar unloading station, as determined using 40 CFR Part 60, Appendix A–4 Method 9.

d. Opacity. No owner or operator shall discharge or cause the discharge of emissions from the stacks of Units 1, 2, or 3 into the atmosphere exhibiting greater than 20% opacity, excluding condensed uncombined water droplets, averaged over any six (6) minute period and 40% opacity, averaged over six (6) minutes, during absorber upset transition periods.

3. Testing and Monitoring [40 CFR § 49.5513(e)]:

a. On and after the effective date of this regulation, the owner or operator shall maintain and operate Continuous Emissions Monitoring Systems (CEMS) for NO_X and SO_2 and Continuous Opacity Monitoring Systems (COMS) on Units 1, 2, and 3 in accordance with 40 CFR 60.8 and 60.13(e), (f), and (h), and Appendix B of Part 60. The owner or operator shall comply with the quality assurance procedures for CEMS and COMS found in 40 CFR part 75.

b. The owner or operator shall conduct annual mass emissions tests for particulate matter on Units 1, 2, and 3, operating at rated capacity, using coal that is representative of that normally used. The tests shall be conducted using the appropriate test methods in 40 CFR Part 60, Appendix A.

c. During any calendar year in which an auxiliary boiler is operated for 720 hours or more, and at other times as requested by the Administrator, the owner or operator shall conduct mass emissions tests for sulfur dioxide, nitrogen oxides and particulate matter on the auxiliary steam boilers, operating at rated capacity, using oil that is representative of that normally used. The tests shall be conducted using the appropriate test methods in 40 CFR Part 60, Appendix A. For particulate matter, testing shall consist of three test runs. Each test run shall be at least sixty (60) minutes in duration and shall collect a minimum volume of thirty (30) dry standard cubic feet.

d. The owner or operator shall maintain two sets of opacity filters for each type of COMS, one set to be used as calibration standards and one set to be used as audit standards. At least one set of filters shall be on site at all times.

e. All emissions testing and monitor evaluation required pursuant to this section shall be conducted in accordance with the appropriate method found in 40 CFR Part 60, Appendices A and B.

f. The owner or operator shall install, maintain and operate ambient monitors at Glen Canyon Dam for particulate matter ($PM_{2.5}$ and PM_{10}), nitrogen dioxide, sulfur dioxide, and ozone. Operation, calibration and maintenance of the monitors shall be performed in accordance with 40 CFR Part 58, manufacturer's specification, and "Quality Assurance Handbook for Air Pollution Measurements Systems", Volume II, U.S. EPA as applicable to

single station monitors. Data obtained from the monitors shall be reported annually to the Regional Administrator. All particulate matter samplers shall operate at least once every six days, coinciding with the national particulate sampling schedule.

g. Nothing herein shall limit EPA's ability to ask for a test at any time under section 114 of the Clean Air Act, 42 U.S.C. 7413, and enforce against any violation of the Clean Air Act or this section.

h. A certified EPA Reference Method 9 of Appendix A–4 of 40 CFR Part 60 observer shall conduct a weekly visible emission observation for the equipment and activities described under Condition II.A.2.c. If visible emissions are present at any of the equipment and/or activities, a 6-minute EPA Reference Method 9 observation shall be conducted. The name of the observer, date, and time of observation, results of the observations, and any corrective actions taken shall be noted in a log.

4. Reporting and Recordkeeping Requirements [40 CFR § 49.5513(f)]:

Unless otherwise stated all requests, reports, submittals, notifications and other communications to the Regional Administrator required by this section shall be submitted to the Director, Navajo Environmental Protection Agency, P.O. Box 339, Window Rock, Arizona 86515, (928) 871–7692, (928) 871–7996 (facsimile), and to the Director, Air Division, U.S. Environmental Protection Agency, Region IX, to the attention of Mail Code: AIR–5, at 75 Hawthorne Street, San Francisco, California 94105, (415) 972–3990, (415) 947–3579 (facsimile). For each unit subject to the emissions limitations in this section the owner or operator shall:

a. Comply with the notification and recordkeeping requirements for testing found in 40 CFR 60.7. All data/reports of testing results shall be submitted to the Regional Administrator and postmarked within 60 days of testing.

b. For excess emissions, notify the Navajo Environmental Protection Agency Director and the U.S. Environmental Protection Agency Regional Administrator by telephone or in writing within one business day. This notification should be sent to the Director, Navajo Environmental Protection Agency, by mail to: P.O. Box 339, Window Rock, Arizona 86515, or by facsimile to: (928) 871–7996 (facsimile), and to the Regional Administrator, U.S. Environmental Protection Agency Region 9, by mail to the attention of Mail Code: AIR–5, at 75 Hawthorne Street, San Francisco, California 94105, by facsimile to: (415) 947–3579 (facsimile), or by e-mail to: *r9.aeo@epa.gov.* A complete written report of the incident shall be submitted to the Regional Administrator within ten (10) working days after the event. This notification shall include the following information:

(i) The identity of the stack and/or other emissions points where

excess emissions occurred;

(ii) The magnitude of the excess emissions expressed in the units of the applicable emissions limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

(iii) The time and duration or expected duration of the excess emissions;

(iv) The identity of the equipment causing the excess emissions;

(v) The nature and cause of such excess emissions;

(vi) 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 such malfunction; and

(vii) The steps that were taken or are being taken to limit excess emissions.

c. Notify the Regional Administrator verbally within one business day of determination that an exceedance of the NAAQS has been measured by a monitor operated in accordance with this regulation. The notification to the Regional Administrator shall include the time, date, and location of the exceedance, and the pollutant and concentration of the exceedance. Compliance with Condition II.A.4.c.v shall not excuse or otherwise constitute a defense to any violations of this section or of any law or regulation which such excess emissions or malfunction may cause. The verbal notification shall be followed within fifteen (15) days by a letter containing the following information:

(i) The time, date, and location of the exceedance;

(ii) The pollutant and concentration of the exceedance;

(iii) The meteorological conditions existing 24 hours prior to and during the exceedance;

(iv) For a particulate matter exceedance, the 6-minute average opacity monitoring data greater than 20% for the 24 hours prior to and during the exceedance; and

(v) Proposed plant changes such as operation or maintenance, if any, to prevent future exceedances.

d. Submit quarterly excess emissions reports for sulfur dioxide and opacity as recorded by CEMS and COMS together with a CEMS data assessment

report to the Regional Administrator no later than 30 days after each calendar quarter. The owner or operator shall complete the excess emissions reports according to the procedures in 40 CFR 60.7(c) and (d) and include the Cylinder Gas Audit. Excess opacity due to condensed water vapor in the stack does not constitute a reportable exceedance; however, the length of time during which water vapor interfered with COMs readings should be summarized in the 40 CFR 60.7 (c) report.

5. Compliance Certifications [40 CFR § 49.5513(g)]:

Notwithstanding any other provision in this implementation plan, the owner or operator 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 had been performed, for the purpose of submitting compliance certifications.

6. Equipment Operations [40 CFR § 49.5513(h)]:

The owner or operator shall operate all equipment or systems needed to comply with this section in accordance with 40 CFR 60.11(d) and consistent with good engineering practices to keep emissions at or below the emissions limitations in this section, and following outages of any control equipment or systems the control equipment or system will be returned to full operation as expeditiously as practicable.

7. Enforcement [40 CFR § 49.5513(i)]:

a. Notwithstanding any other provision in this implementation plan, 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 had been performed, can be used to establish whether or not a person has violated or is in violation of any standard in the plan.

b. During periods of start-up and shutdown the otherwise applicable emission limits or requirements for opacity and particulate matter shall not apply provided that:

(i) At all times the facility is operated in a manner consistent with good practice for minimizing emissions, and the owner or operator uses best efforts regarding planning, design, and operating procedures to meet the otherwise applicable emission limit;

(ii) The frequency and duration of operation in start-up or shutdown mode are minimized to the maximum extent practicable; and

(iii) The owner or operator's actions during start-up and shutdown periods are documented by properly signed, contemporaneous

operating logs, or other relevant evidence.

c. Emissions in excess of the level of the applicable emission limit or requirement that occur due to a malfunction shall constitute a violation of the applicable emission limit. However, it shall be an affirmative defense in an enforcement action seeking penalties if the owner or operator has met with all of the following conditions:

(i) The malfunction was the result of a sudden and unavoidable failure of process or air pollution control equipment and did not result from inadequate design or construction of the process or air pollution control equipment;

(ii) The malfunction did not result from operator error or neglect, or from improper operation or maintenance procedures;

(iii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(iv) Steps were immediately taken to correct conditions leading to the malfunction, and the amount and duration of the excess emissions caused by the malfunction were minimized to the maximum extent practicable;

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation if at all possible; and

(vii) The owner or operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence.

II.B. PSD Permit Requirements [PSD Permit AZ 08-01][1]

Low-NO_X Burner (LNB) & Separated Over-fire Air (SOFA) Requirements:

1. Prior to commencement of installation, the permittee shall submit the following information to EPA [PSD Permit AZ 08-01 IX.A]:

a. Design specifications of the LNB/SOFA system to be installed.

b. At least one month prior to the date of initial start-up, an LNB/SOFA

[1] NNEPA has added Condition II.B to the permit as an administrative amendment pursuant to NNOPR § 405(C), see also 40 C.F.R. § 71.7(d), in order to incorporate the requirements of existing PSD permit AZ 08-01 issued by US EPA. Condition II.B is included here for informational purposes only and is not subject to public comment.

system operating plan which sets forth measures that will be taken to maintain and operate the system in a manner to ensure compliance with the emission limits specified in Condition II.B.2.

2. Emission Limits [PSD Permit AZ 08-01 IX.B]:

a. Carbon monoxide (CO) emissions from each unit shall not exceed 0.42 lb/MMBtu based on a 30-day rolling average.

b. Nitrogen oxide emissions (NO_X) from each unit shall not exceed 0.24 lb/MMBtu based on a 30-day rolling average.

3. Demonstration Period Requirements [PSD Permit AZ 08-01 IX.C]:

a. Demonstration Period is defined as the first 18 months of operation after installation of the LNB/SOFA system.

b. After the Demonstration Period for each LNB/SOFA system, the permittee shall submit to EPA a written report together with CO CEMS data showing actual CO emissions which evaluates whether a lower CO emissions limit can be consistently and reasonably achieved while maintaining NO_X emission levels at or below 0.24 lb/MMBtu on a 30-day rolling average. The report shall provide all supporting documentation identifying the combustion characteristics that impact CO emissions and evaluate the potential for reducing the CO emission limit to a level that can be consistently and reasonably met. Within 30 days after the EPA concludes in writing that the report is acceptable, the permittee shall apply for a permit modification to decrease the CO emission limit. This report shall also evaluate the ten highest occurrences for a one-hour average and an 8-hour average for pounds per hour CO. If these averages are inconsistent (higher) with the modeling submittal, either a new modeling analysis will be required to assure maintenance of the CO NAAQS or a short term limit will be established for the permit.

4. At all times, including periods of startup and shutdown, the permittee shall, to the extent practicable, maintain and operate the LNB/SOFA system in a manner consistent with good combustion practices to minimize emissions [PSD Permit AZ 08-01 IX.D]

5. Continuous Emission Monitoring Systems [PSD Permit AZ 08-01 IX.E]:

a. Within 60 days of completion of installation of each LNB/SOFA system, the permittee shall install, and thereafter operate, maintain, certify, and quality assure a continuous emission monitoring system (CEMS) for each boiler which measures stack gas CO concentrations in lb/MMBtu.

b. The CO CEMS shall meet the applicable requirements of 40 CFR Part 60 Appendix B, Performance Specifications 3 and 4A, and 40 CFR Part 60

Appendix F, Procedure 1. The diluent monitor (O_2 or CO_2) must meet the requirements of 40 CFR Part 75.

c. The permittee shall operate, maintain, and quality-assure according to the requirements of 40 CFR Part 75, a CEMS for each boiler which measures stack gas NO_X concentrations in lb/MMBtu. The NO_X CEMs must meet the requirements of 40 CFR Part 75.

d. The CO CEMS shall complete a minimum of one cycle of operations (sampling, analyzing and data recording) for each successive 15-minute period.

e. The permittee shall submit a CO CEMS performance test protocol to the EPA no later than 30 days prior to the test date to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.

f. The permittee shall furnish the EPA a written report of the results of performance tests within 60 days of completion.

g. The CO CEMS shall be tested annually and quarterly in accordance with the requirements of 40 CFR 60 Appendix F, Procedure 1. The NO_X CEMS shall meet the quality assurance requirement found in 40 CFR Part 75.

6. Performance Test [PSD Permit AZ 08-01 IX.F]:

A thirty day initial performance test for CO and NO_X shall be conducted with the CEMS starting the day after successful completion of the performance testing for the CO CEMs. A report of the NO_X and CO hourly emissions during this initial test shall be submitted to EPA within 30 days of completion of the test.

7. Recordkeeping and Reporting Requirements [PSD Permit AZ 08-01 IX.G]:

a. The permittee shall maintain records of the hours of operation for U1, U2 and U3 on a monthly basis.

b. The permittee shall maintain records of the amount of fuel used in U1, U2 and U3 on a monthly basis.

c. The permittee shall maintain all records on site of actual operating data and emissions calculations for emissions limits required in Condition II.B.2.

d. The permittee shall maintain CEMS records that contain the following: the occurrence and duration of any startup, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous

monitoring system or monitoring device is inoperative, and emission measurements.

e. The permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually. The report is due on the 30th day following the end of the calendar quarter and shall include the following:

(i) Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;

(ii) Applicable time and date of each period during which the CEMS was inoperative (monitor down time), except for zero and span checks, and the nature of system repairs or adjustments; and

(iii) A negative declaration when no excess emissions occurred or when the CEMS has not been inoperative, repaired, or adjusted.

f. Excess emissions shall be defined as any operating day in which the 30-day rolling average CO and NO_X concentration, as measured by the CEMS, exceeds the maximum emission limits set forth in Condition II.B.2.

g. A period of monitor down time shall be any unit operating hour in which sufficient data are not obtained to validate the hour for CO, NO_X, or O_2.

h. Excess emissions indicated by the CEMS shall be considered violations of the applicable emission limit for the purpose of this permit.

i. All records required by this PSD Permit shall be retained for five years following the date of such measurements, maintenance, and reports.

II.C. CAM Requirements [40 CFR Part 64]

The following provisions shall apply to each unit (U1-U3):

1. Monitoring

a. The indicator ranges are defined by the following thresholds [40 CFR § 64.6(c)(1)(i)]:

(i) For each Electrostatic Precipitator (ESP), no more than 3 chambers (18 fields) shall be out of service at one time.

(ii) If less than 2 spray levels are operating in each wet limestone scrubber, then for the same boiler, no more than 1 chamber (6 fields) shall be out of service in the ESP for that boiler.

(iii) For each wet limestone scrubber, the temperature shall not exceed 145°F on a 1 hour average, as measured by a J-type thermocouple.

(iv) No more than one wet limestone scrubber shall be bypassed at one time, and the same wet limestone scrubber shall not be bypassed for more than 1 hour.

b. The means or devices by which the indicators will be measured are as follows [40 CFR § 64.6(c)(1)(ii)]:

(i) Status bits from the Automatic Voltage Controllers (AVCs) shall be recorded on a continuous basis by the BHA WinDAC Data Acquisition and Control Software and supplemented with operating logs; these status bits indicate the number of chambers/fields that are operational in the ESPs.

(ii) The wet limestone scrubber spray level signal shall be recorded on a continuous basis by a data acquisition handling system.

(iii) A J-type thermocouple at the wet limestone scrubber exhaust shall measure the temperature of the exhaust and be recorded as an hourly average by a data acquisition system.

(iv) An on/off signal on the wet limestone scrubber indicating that the wet limestone scrubber is operational shall be recorded on a continuous basis by a data acquisition handling system.

c. The permittee shall conduct performance testing in accordance with 40 CFR § 64.4(d) to ensure that compliance with the particulate matter emission limits in Condition II.A.2.b can be achieved when more than 3 chambers of an ESP unit are out of service. The testing shall be conducted at the first possible opportunity, i.e. the earliest time during which more than 3 chambers are out of service in an ESP unit. [40 CFR § 64.6(c)(1)(iii)]

2. Excursions during normal operation of the boilers are defined below [40 CFR § 64.6(c)(2)]. Normal operation of the boiler is specified as any time the boiler is operating in its usual manner in accordance with good air pollution control practices for minimizing emissions. [Condition II.C.6.a]

a. When an ESP unit is operating with more than 3 chambers (18 fields) out of service.

b. When an ESP unit is operating with more than 1 chamber (6 fields) out of service and less than 2 spray levels are operating in the wet limestone scrubber associated with the same boiler.

c. When the exhaust temperature for a wet limestone scrubber exceeds 145°F for more than one unit, on a 1 hour average basis.

d. When a wet limestone scrubber is bypassed for more than one unit and the same wet limestone scrubber is bypassed for more than 1 hour.

3. The permittee shall continuously monitor and log the following measurements upon issuance of this permit [40 CFR § 64.6(c)(3), 40 CFR § 64.7(a)]:

a. The number of chambers/fields in service for each ESP unit.

b. The number of wet limestone scrubber spray levels in service for each boiler unit.

c. The wet limestone scrubber exhaust temperatures at the absorber outlets of each boiler unit.

d. The wet limestone scrubber on/off signal of each boiler unit.

4. At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR § 64.7(b)]

5. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this permit, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR § 64.7(c)]

6. Response to excursions or exceedances [40 CFR § 64.7(d)]

a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall

include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify NNEPA and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR § 64.7(e)]

8. Based on the results of a determination made under Condition II.C.6.b of this permit, NNEPA may require the permittee to develop and implement a QIP. In addition, NNEPA may require the implementation of a QIP if an accumulation of exceedances or excursions exceeds 5 percent duration of each unit's (U1-U3) operating time for one calendar quarter. [40 CFR § 64.8(a)]

9. Reporting and Recordkeeping Requirements [40 CFR § 64.9]

a. A report for monitoring under this permit shall include, at a minimum, the information required under Condition III.C of this permit and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period as specified in 40 CFR § 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

b. The permittee shall comply with the recordkeeping requirements specified in Condition III.B.3 of this permit. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to 40 CFR § 64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

c. Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

IV.C. Compliance Certifications [40 CFR § 71.6(c)(5)] [NNOPR § 302(I)] [The NNOPR provision is enforceable by NNEPA only]

1. The permittee shall submit to NNEPA and US EPA Region 9 a semi-annual certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, postmarked by January 31 and July 31 of each year and covering the previous six-month period ending on December 31 and June 30, respectively. The compliance certification shall be certified as to truth, accuracy, and completeness by the permit-designated responsible official consistent with Condition III.C.4 of this permit [40 CFR § 71.6(c)(5)].

2. The certification shall include the following [40 CFR § 71.6(c)(5)(iii)]:

    a. Identification of each permit term or condition that is the basis of the certification.

    b. Identification of the method(s) or other means used for determining the compliance status of each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data.

        If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with Section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information.

    c. The compliance status of each term and condition of the permit for the period covered by the certification based on the method or means designated above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance has occurred pursuant to this permit.

    d. Whether compliance with each permit term was continuous or intermittent.