



**NAVAJO NATION ENVIRONMENTAL PROTECTION  
AGENCY**

**Navajo Nation Operating Permit Program  
Rt. 112 North, Building F004-051  
P.O. Box 529, Fort Defiance, AZ 86504**



**Detailed Information**

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**Permitting Authority: NNEPA**

**County:** Coconino

**State:** Arizona

**AFS Plant ID:** 04-005-N0423

**Facility:** Navajo Generating Station

**Document Type:** STATEMENT OF BASIS

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PART 71 FEDERAL OPERATING PERMIT

STATEMENT OF BASIS

Navajo Generating Station

Permit No. NN-ROP-05-06

**1. Facility Information**

**a. Permittee**

Navajo Generating Station  
5 Miles East of Page, off U.S. Highway 98  
Page, Arizona 86040

**Mailing Address:**

P.O. Box 850  
Page, Arizona 86040

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)

**b. Contact Information**

Facility Contact:	Paul Ostapuk O&M Manager	Phone: (928) 645-6577 Facsimile: (928) 645-7298
Responsible Official:	Robert K. Talbot Plant Manager	Phone: (928) 645-6217 Facsimile: (928) 645-7298

**c. Description of Operations, Products**

The facility is a 2,250 net Megawatts coal fired power plant.

**d. History**

The facility consists of three (3) coal fired utility boilers. The permittee receives the coal from a nearby coal mine which has an average sulfur content between 0.5% and 0.75% by weight. Boilers U1, U2, and U3 commenced construction in 1970. The construction of these boilers predated EPA's preconstruction permit regulation, and there have been no major modifications to this facility since the regulations were adopted. Therefore, this facility has not been required to obtain a preconstruction permit.

Particulate emissions from boilers U1 through U3 are controlled by Electrostatic Precipitators (ESP). The Flue Gas Desulfurization (FGD) systems for SO<sub>2</sub> control were installed in 1997, 1998, and 1999 for boilers U3, U2, and U1, respectively. The associated limestone handling system was constructed in 1997. A Part 71 Operating Permit NN-OP-00-01 was issued to this source on June 5, 2001.

Although the Arizona Department of Environmental Quality lacks authority to administer Clean Air Act programs in the Navajo Nation, this source has been voluntarily in compliance with the Arizona SIP requirements. EPA proposed a Federal Implementation Plan (FIP) for this plant in September 8, 1999, which was revised and re-proposed on September 11, 2006. This FIP has not yet been finalized. This Part 71 permit renewal will be reopened to include the final version of the FIP when it is promulgated.

**e. Existing Approvals**

The source has been operating under Part 71 Operating Permit NN-OP-00-01, issued on June 5, 2001 and the following approvals:

- (a) First Reopening, issued on November 13, 2003.
- (b) First Administrative Amendment, issued on April 28, 2003.

- (c) Second Administrative Amendment, issued on December 18, 2003.
- (d) First Minor Modification #NN-OP-00-01-D, issued on October 20, 2005.

All conditions from previous approvals were incorporated into this Part 71 permit renewal, except for the following:

In the First Minor Modification #NN-OP-00-01-D, issued on October 20, 2005, the permittee was permitted to construct and operate a new ash storage facility, consisting of one (1) ash storage building (controlled by baghouses DC-103 and DC-105) and two (2) truck loadout stations (controlled by baghouse DC-131). However, in an e-mail received from the source on January 30, 2007, the permittee stated that they do not have any definite plans in the near future to construct these units. Therefore, the description for the new ash storage facility and the associated applicable requirements in #NN-OP-00-01-D, issued on October 20, 2005, are not included in this Part 71 permit renewal.

**f. Permitted Emission Units and Control Equipment**

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 <sub>2</sub> and NO <sub>x</sub> CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; 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 <sub>2</sub> and NO <sub>x</sub> CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; 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 <sub>2</sub> and NO <sub>x</sub> CEMS, and a COMS.	7,725 MBtu/hr; 750 Net MW	1970	COFA*; 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
<b>Coal Handling Operations</b>				
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

<b>Unit ID/ Stack ID</b>	<b>Unit Description</b>	<b>Maximum Capacity</b>	<b>Commenced Construction Date</b>	<b>Control Method</b>
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
<b>Limestone handling system associated with the FGD systems</b>				
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

Unit ID/ Stack ID	Unit Description	Maximum Capacity	Commenced Construction Date	Control Method
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
<b>Fly ash handling system</b>				
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
<b>Soda ash/lime handling systems</b>				
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
<b>Miscellaneous Operations</b>				
	Six (6) cooling towers	813,000 gal/min (total)	1970	N/A
TR	Fugitive emissions from unpaved roads	N/A	1970	water suppression

\*Note: COFA = Close-Coupled Overfire Air.

**g. Unpermitted Emission Units and Control Equipment**

No unpermitted emission units were found to be operating at this source during this review process.

**h. New Emission Units and Control Equipment**

There are no new emission units or pollution control equipment included in this Part 71 operating permit renewal.

**i. Insignificant Activities**

This stationary source also includes the following insignificant activities as defined in 40 CFR 71.5(c)(11)(ii), which is defined as emission units with potential to emit of each criteria pollutant less than 2 tons per year and potential to emit a single HAP less than 0.5 per year or the de minimis level established under CAA 112(g), whichever is less:

- (a) Diesel fired emergency generators, including the following:
  - (1) One (1) emergency generator for boilers U1 and U2, identified as EG1, with a maximum heat input capacity of 5.49 MMBtu/hr.
  - (2) One (1) emergency generator for boiler U3, identified as EG2, with a maximum heat input capacity of 3.43 MMBtu/hr.
  - (3) One (1) warehouse emergency generator, with a maximum heat input capacity of 50 kilowatts (0.6 MMBtu/hr).
- (b) Facility wide welding activities, identified as WL.
- (c) Abrasive blasting operations.
- (d) Fuel and oil storage tanks as described in Table 1.

**Table 1 - Fuel and Oil Storage Tanks**

<b>Unit ID</b>	<b>Type of Liquid Stored</b>	<b>Construction Date</b>	<b>Max. Capacity (gallons)</b>
NGS-062-A	Diesel	1991	14,000
NGS-063-A	Diesel	1991	14,000
NGS-064-A	Gas	1991	12,000
NGS-065-A	Waste Oil	1991	2,500
NGS-066-A	Waste Antifreeze	1991	1,000
NGS-067-A	Waste Oil	1991	550
NGS-068-A	30 Wt Engine Oil	1991	550
NGS-069-A	Antifreeze	1991	550
NGS-070-A	30 Wt Engine Oil	1991	550
NGS-071-A	10 Wt Engine Oil	1991	550
NGS-072-A	Diesel	1991	2,000
NGS-073-A	Diesel	1991	10,000
NGS-074-A	Diesel	1991	10,000
NGS-075-A	Diesel	1974	5,040,000
NGS-075-B	Diesel	2000	172,000
NGS-076-A	Clean Lube Oil	1973	16,000
NGS-077-A	Dirty Lube Oil	1973	16,000
NGS-078-A	10 Wt Engine Oil	1991	550
NGS-079-A	Mobile Diesel	Early '70s	200
NGS-080-A	Mobile Diesel	Early '70s	200
NGS-081-A	Mobile Diesel	Early '70s	200
NGS-082-A	30 Wt Engine Oil	1991	550
NGS-083-A	10 Wt Engine Oil	1991	550

<b>Unit ID</b>	<b>Type of Liquid Stored</b>	<b>Construction Date</b>	<b>Max. Capacity (gallons)</b>
NGS-084-A	Mobile Diesel	Early '70s	200
NGS-085A	Mobile Diesel	1974	400
NGS-086A	Mobile Diesel	1974	350
NGS-088A	Mobile Diesel	1974	400
NGS-090A	Turbine Lube Oil	1974	7,450
NGS-091A	Turbine Lube Oil	1974	650
NGS-092A	Turbine Lube Oil	1974	650
NGS-093A	Turbine Lube Oil	1974	7,450
NGS-094A	Turbine Lube Oil	1974	650
NGS-095A	Turbine Lube Oil	1974	650
NGS-096A	Turbine Lube Oil	1974	7,450
NGS-097A	Turbine Lube Oil	1974	650
NGS-098A	Turbine Lube Oil	1974	650
NGS-099A	H2 Seal Oil	1974	650
NGS-100A	H2 Seal Oil	1974	650
NGS-101A	H2 Seal Oil	1974	650
NGS-102A	Transformer Oil	1974	5,600
NGS-103A	Transformer Oil	1974	5,750
NGS-104A	Transformer Oil	1974	5,750
NGS-105A	Diesel	1974	8,000
NGS-106A	Diesel	1974	10,000
NGS-107A	Lube Oil	1974	750
NGS-108A	Diesel	1974	900
NGS-109A	Diesel	1974	400

- (e) Landscaping, building maintenance, or janitorial activities.
- (f) Hand-held or manually operated equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or tuning of precision parts, metals, plastics, masonry, glass, or wood.
- (g) Powder coating operations.
- (h) Lab equipment used exclusively for chemical and physical analyses.
- (i) Maintenance painting and surface coating.
- (j) Parts cleaning.
- (k) Maintenance sand blasting.

- (1) Other insignificant activities as described in Table 2.

**Table 2 - Other Insignificant Activities**

<b>Unit Description</b>	<b>Max. Capacity (gallons)</b>	<b>Number of Units</b>
Main turbine lube oil reservoir	7,450	3
M T lube oil filter canisters	100	6
Seal oil tank	650	3
Aux turbine lube oil reservoir	650	2
Electro hydraulic control reservoir	400	3
Pulverizer lube oil reservoir	100	7
Pulverizer lube oil reservoir	300	14
Condensate pump reservoir	85	9
Boiler Feed BP oil reservoir	22	9
Inst / service air compressor	50	9
Soot blowing air compressor	250	3
Emergency diesel generator	50	1
Emergency diesel generator	100	1
Primary air fan	85	6
Induced draft fan	110	12
Forced draft fan	10	6
Coal belt gear case	35	35
Cooling tower circ pump	10	6
Cooling fan gear case	34	30
Brine concentrator compressor	100	1
Brine concentrator compressor	150	2
Chrystallizer compressor	275	1
Transformer (spare) (mineral oil)	265	2
Emergency diesel fire pump	250	1
Transformer (main)	9,550	12
Transformer (aux)	6,672	3
Transformer (main station service)	21,980	1
Transformer (main station service)	17,730	1
Reactor tank	5,500	12
Reactor tank	6,142	12
Thyrite varister oil tank	2,446	12
Large capacitor oil tanks	3.2	5,581
Small capacitor oil tanks	2.8	2,210
Transformer (50 KV at RR)	4,180	3
Circuit breaker oil tank (230 KV)	2,575	5
Transformer 4,160 V	1,409	14



<b>Unit Description</b>	<b>Max. Capacity (gallons)</b>	<b>Number of Units</b>
Transformer 4,160 V	1,193	2
Transformer 480 V	268	28
Transformer 480 V	338	30
Transformer 480 V	343	5
Transformer/rectifier set	165	80
Transformer/rectifier set	140	32
Transformer/rectifier set	132	64
Transformer/rectifier set	117	64
Transformer 4,160 V (lake pump)	1,259	3
Transformer 480 V (lake pump)	160	2
Waste oil storage tank (cent yard)	500	1
Generator, diesel (Generac)	265	1
Recycle slurry system gear box	16	12
Recycle slurry system gear box	22	12
Oxidation air system oil res.	60	9
Recycle valve Hydraulic sys.	120	3
Reactivator agitator	13	30
Limestone feed tank agitator	24	3
Absorber sump agitator	0.75	6
Ball mill gear box	52	2
Ball mill lube reservoir tank	110	2
Limestone conveyor gear box	39	3
Limestone transfer tank agitator	44	1
Filtrate raw water tank gear box	44	1
Ball mill sump tank agitator	7	2
LSP sump agitator	0.75	3
Filtrate transfer tank agitator	24	1
Secondary vacuum pump gear box	4.5	3
Absorber holding tank agitator	23	10
Bi-product sump agitator	1.5	2
Primary dewatering agitator	2	6
Conveyer feedbelt gear box	1.5	2
Sulfuric acid tank	20,000	1
Sulfuric acid tank	15,000	3
Sulfuric acid tank	10,000	1
Sodium hydroxide (25%) tank	10,000	1
Sodium hydroxide (50%) tank	10,000	1
Ammonia tank	10,000	1
Ferric chloride tank	16,000	1
Acid or caustic tank	24,000	2

<b>Unit Description</b>	<b>Max. Capacity (gallons)</b>	<b>Number of Units</b>
Sodium hypochlorite tank	4,500	3
Scale inhibitor tank	2,000	6
Dust Suppressant (Dusbloc) Tank	1,000	1
Dust Suppressant (Dusbloc) Tank	4,000	1

**j. Enforcement Issue**

There are no enforcement actions pending.

**k. Emission Calculations**

See Appendix A of this document for detailed calculations (pages 1 through 16).

**l. Potential to Emit**

Potential to emit (PTE) means the maximum capacity to emit any air pollutant (Clean Air Act criteria pollutants or hazardous air pollutants) under its physical and operational design. Any physical or operational limitations on the maximum capacity of this plant to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, may be treated as a part of its design if the limitation is enforceable by US EPA or NNEPA. Actual emissions are typically lower than PTE.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	HAPs
Boiler B1	2,030	519	3,384	15,226	94.2	785	125
Boiler B2	2,030	519	3,384	15,226	94.2	785	125
Boiler B3	2,030	519	3,384	15,226	94.2	785	125
Auxiliary Boilers	60.7	60.7	1,444	442	3.68	92.0	11.1
Coal Handling	10.7	6.44	-	-	-	-	-
Coal Piles (Fugitive)	5.43	2.57	-	-	-	-	-
Limestone Handling	4.61	2.98	-	-	-	-	-
Limestone Piles (Fugitive)	4.60	2.17	-	-	-	-	-
Fly Ash Handling	29.2	29.2	-	-	-	-	0.01
Soda Ash/Lime Handling	0.26	0.26	-	-	-	-	-
Cooling Towers	19.2	19.2	-	-	-	-	-
Unpaved Roads (Fugitive)	591	153	-	-	-	-	-
Emergency Generators	0.74	0.74	0.69	10.5	0.83	2.26	Negligible
Other Insignificant Activities*	Less than 5.00	Less than 5.00	-	Less than 5.00	-	-	Negligible
PTE of the Entire Source	6,822	1,838	11,595	46,130	292	2,448	387
Title V Major Source Thresholds	NA	100	100	100	100	100	10 for a single HAP and 25 for total HAPs

\*Note: This is an estimate on the PM/PM10 emissions from the welding and blasting operations, and VOC/HAP emissions from the parts cleaning, surface coating operations, and the storage tanks.

- (a) The potential to emit of PM10, SO<sub>2</sub>, VOC, CO and NO<sub>x</sub> are equal to or greater than 100 tons per year. In addition, the potential to emit of HAPs from this source is greater than 10 tons per year for a single HAP and greater than 25 tons per year for total HAPs. Therefore, this source is considered a major source under 40 CFR 71 (Federal Operating Permit Program).
- (b) This source is located in an attainment area and is in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii). The potential to emit PM and all criteria pollutants of this source are greater than 100 tons per year. Therefore, this source is an existing major source under the Prevention of Significant Deterioration (PSD) program.

**m. Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2006 emission inventory data submitted by the permittee.

Pollutant	Actual Emissions (tons/year)
PM	1,943
PM10	513
SO <sub>2</sub>	3,844
VOC	22
NO <sub>x</sub>	34,430
Sulfuric Acid Mist	61
Hydrogen Chloride	21
Hydrogen Fluoride	32

**2. Tribe Information**

**a. General**

The reservation of the Navajo Nation is one of the largest Indian reservations in the country, covering more than 26,000 square miles in three states: Arizona, Utah, and New Mexico. The Navajo Nation currently is home to more than 260,000 people. Industries on the reservation include oil and natural gas production, coal and uranium mining, electric generation and distribution, and tourism.

**b. Local air quality and attainment status**

All areas of the Navajo Nation are currently designated as attainment or unclassifiable for all pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established.

**3. Prevention of Significant Deterioration (PSD) Applicability**

This source commenced construction in 1970 and commenced modifications in 1997 (installation of the FGD systems). The construction of this source predated the PSD applicability date of June 1, 1975 for fossil fuel steam electric plants. Therefore, this source was not required to obtain a preconstruction permit. This existing source is in one of the 28 source categories defined in 40 CFR 52.21(b)(1)(iii) and has potential to emit PM and all criteria pollutants greater than 100 tons per year. Therefore, this source is an existing PSD major source.

**4. Federal Rule Applicability**

- (a) This source will be subject to the Source-Specific Federal Implementation Plan (FIP) for Navajo Generating Station, Navajo Nation (40 CFR 49.20) once it is promulgated. This rule was proposed on September 11, 2006 and the public notice

period closed on November 6, 2006. However, this rule has not been promulgated during the review of this Part 71 permit renewal. NNEPA will reopen the Part 71 permit renewal for the permittee to incorporate the requirements of this FIP once this rule is promulgated.

- (b) The existing boilers U1 through U3 are considered utility units under the definition of 40 CFR 72.2. Therefore, these boilers are subject to the Acid Rain Program requirements (40 CFR 72 through 40 CFR 76), pursuant to 40 CFR 72.6(a)(3). An Acid Rain Renewal Application was submitted on January 3, 2007. Pursuant to 40 CFR 72.9, the permittee shall comply with the following:

- (1) The SO<sub>2</sub> and NO<sub>x</sub> continuous emission monitoring requirements in 40 CFR 75.
- (2) Pursuant to 40 CFR 73.10(b) and the allowance allocations provided on October 30, 2000, the phase II SO<sub>2</sub> allowance allocations for the boilers at this source are listed in the table below:

<b>Emission Unit</b>	<b>SO<sub>2</sub> Allowance for years 2000-2009 (tons/yr)</b>	<b>SO<sub>2</sub> Allowance for years 2010 and beyond (tons/yr)</b>
Boiler U1	26,220	24,949
Boiler U2	24,262	23,354
Boiler U3	25,042	23,693
Facility Total	75,524	71,996

Beginning in 2007, the SO<sub>2</sub> allowance allocations apply to the entire facility, instead of each individual emission unit at this facility.

- (3) Comply with the acid rain emissions limitations for nitrogen oxides in 40 CFR 76 for coal fired boilers. Pursuant to 40 CFR 76.8(d)(2), U. S. EPA has approved a NO<sub>x</sub> early election compliance plan for boilers U1, U2, and U3, effective for calendar years 2000 through 2007. Beginning in calendar year 2008, the permittee shall comply with the NO<sub>x</sub> emission limit of 0.40 lbs/MMBtu for each of the boilers U1, U2, and U3, pursuant to 40 CFR 76.7(a)(1). The NO<sub>x</sub> emission limits for boilers U1 through U3 are summarized below:

<b>Emission Unit</b>	<b>NO<sub>x</sub> Emission Limit (At and After 2008)</b>
Boiler U1	0.40 lbs/MMBtu
Boiler U2	0.40 lbs/MMBtu
Boiler U3	0.40 lbs/MMBtu

- (c) The Clean Air Mercury Rule (CAMR, CAA 112(n)) was promulgated on May 31, 2006, which was developed to permanently cap and reduce the mercury (Hg)

emissions from coal fired power plants. Pursuant to 40 CFR 60.24, the Hg emission budget assigned to Navajo Nation is listed in the table below:

<b>Time Period</b>	<b>Total Hg Emission Limit (tons/yr)</b>
Phase I (2010-2017)	0.600
Phase II (2018 -)	0.237

However, on February 8, 2008, the US Court of Appeals for the District of Columbia Circuit issued a decision that vacates the Clean Air Mercury Rule. Therefore, no CAMR requirements are applicable to this source currently.

- (d) Each of the boilers at this source (U1 through U3, AUXA, and AUXB) has a maximum heat input greater than 250 MMBtu/hr. However, these boilers commenced construction before August 17, 1971 and the permittee stated that no modification or reconstruction to the boilers has occurred since the construction of these boilers. Therefore, the New Source Performance Standard (NSPS) for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 (40 CFR 60.40-46, Subpart D) are not applicable to the boilers at this source.
- (e) The coal handling operations at this source process more than 200 tons of coal per day. However, all the coal handling operations at this source commenced construction before October 24, 1974 and the permittee stated that no modification to the coal handling operations has occurred since the construction of these units. Therefore, the requirements of the New Source Performance Standard for Coal Preparation Plants (40 CFR 60.250-254, Subpart Y) are not applicable.
- (f) Lime is considered a nonmetallic mineral as defined in 40 CFR 60.671. The limestone handling system at this source commenced construction after August 31, 1983 and performs grinding operations. Therefore, the limestone handling system at this source is subject to the requirements of the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (40 CFR 60.670-676, Subpart OOO). The affected facilities include each ball mill, screening operation, belt conveyor, storage bin, and enclosed truck loading station associated with the Limestone Handling System.

Pursuant to 40 CFR 60.672, the permittee shall comply with the following emission limitations:

- (1) PM emissions from any stack shall not exceed 0.05 g/dscm (0.022 gr/dscf) and 7% opacity.
- (2) Fugitive emissions shall not exceed 10% opacity, except for crushers at which a capture system is not used.

- (3) Fugitive emissions from crushers at which a capture system is not used shall not exceed 15% opacity.
- (4) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 CFR 60.672.
- (5) If an affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits specified above, or the building enclosing any affected facility shall not emit any visible fugitive emissions except for emissions from a vent which must meet the stack limitations in paragraph (1).
- (6) Stack emissions from any baghouse that controls emissions from only an individual, enclosed storage bin, shall not exceed 7 percent opacity.
- (7) No visible emissions shall be discharged from any affected facility which processes saturated material.

The permittee shall also comply with the testing requirements in 40 CFR 60.675 and the recordkeeping and reporting requirements in 40 CFR 60.676.

- (g) Tank NGS-064-A is used to store gasoline. However, this tank commenced construction in 1991. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after June 11, 1973, and Prior to May 19, 1978 (40 CFR 60.110-113, Subpart K) are not applicable.
- (h) Tank NGS-064-A is used to store gasoline and commenced construction in 1991. However, the maximum capacity of this tank is less than 40,000 gallons. Therefore, the New Source Performance Standards for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced after May 19, 1978 (326 IAC 12, 40 CFR 60.110a-115a, Subpart Ka) are not applicable.
- (i) The storage tanks NGS-062-A through NGS-074-A, NGS-075-B, NGS-078-A, NGS-082-A, and NGS-083A commenced construction after July 23, 1984. Only the diesel storage tank NGS-075-B has a maximum storage capacity greater than 75 cubic meters (19,813 gallons). Since the diesel fuel stored in tank NGS-075-B has a maximum true vapor pressure of less than 3.5 kPa, tank NGS-075-B is exempt from the requirements of the Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60.110b-117b, Subpart Kb), pursuant to 40 CFR 60.110b(b). Therefore, the requirements of this NSPS are not applicable.

- (j) The emergency generators EG1 through EG3 commenced construction prior to July 11, 2005, and the source indicated these units have not been modified since their installation. Therefore, these generators are not subject to the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200-4219, Subpart IIII).
- (k) This existing source is a major source for HAPs. However, an electric utility steam generating unit is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63.7480-7575, Subpart DDDDD), pursuant to 40 CFR 63.7491(c). Therefore, the coal fired boilers (U1 through U3) and the auxiliary boilers (AUX A and AUX B) at this source, which are considered electric utility steam generating units, are not subject to the requirements of 40 CFR 63, Subpart DDDDD.
- (l) The parts washers at this source do not use halogenated HAP solvents. Therefore, these units are not subject to the requirements of the NESHAP for Halogenated Solvent Cleaning (40 CFR 63, Subpart T).
- (m) Emergency generators EG2 and EG3 are each rated less than 500 horsepower. Therefore, these generators are not subject to the requirements contained in the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63.6580-6675, Subpart ZZZZ). Emergency generator EG1 is rated at 515 horsepower. However, it is considered an existing emergency stationary reciprocating internal combustion engine because it was constructed before December 19, 2002. Emergency generator EG1 is exempt for the requirements in 40 CFR 63, Subpart ZZZZ, pursuant to 40 CFR 63.6590(b)(3).
- (n) The SO<sub>2</sub> emissions from existing boilers U1 through U3 are subject to the SO<sub>2</sub> emission limit in 40 CFR 52.145(d)(2). Pursuant to 40 CFR 52.145(d)(4), the permittee is required to install SO<sub>2</sub> CEMS to monitor the SO<sub>2</sub> emissions from boilers U1 through U3. This continuous monitoring requirement has been incorporated into this Part 71 permit as Condition II.B.4. Therefore, the SO<sub>2</sub> emissions from existing boilers U1 through U3 are exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring), pursuant to 40 CFR 64.2(b)(1)(vi).

There are no specific NO<sub>x</sub> emission limits from existing boilers U1 through U3, except for the NO<sub>x</sub> emission limits in the Acid Rain permit. Pursuant to 40 CFR 64.2(b)(1)(iii), the emission limits established in the Acid Rain program are exempt from the CAM requirements. Therefore, CAM requirements are not applicable to the NO<sub>x</sub> emissions from boilers U1 through U3.

There are no specific PM/PM<sub>10</sub> emission limitations for the boilers, the coal handling operations, or the ash handling operations. Therefore, the requirements of 40 CFR 64 (CAM) are not applicable to these units. The limestone handling



operations at this source are subject to the PM emission limit in 40 CFR 60, Subpart OOO. However, the pre-control PTE of baghouse DC-11 is less than the major source threshold. Therefore, baghouse DC-11 is not subject to CAM. Baghouses DC-9 and DC-10 are used to control PM/PM10 emissions from truck dumping. There are no NSPS or any applicable emission limit for the units controlled by baghouses DC-9 and DC-10. Therefore, baghouses DC-9 and DC-10 are not subject to CAM.

- (o) 40 CFR 52.145(d) (Visibility Protection) has specific requirements for the three (3) coal fired boilers at Navajo Generating Station. Pursuant to 40 CFR 52.145(d)(2), the SO<sub>2</sub> emissions from each of the coal fired boilers (boilers U1, U2, and U3) shall not exceed 42 ng/J (0.1 lbs/MMBtu) heat input. Pursuant to 40 CFR 52.145(d)(3), compliance with the emission limit shall be determined daily on a plant-wide rolling annual basis.
- (p) This source is potentially subject to the Regional Haze Rule (40 CFR 51.308) because it is a major stationary source which was constructed between 1962 and 1977 and has the potential to emit visibility impairing pollutants (primarily NO<sub>x</sub>, SO<sub>2</sub>, and PM) greater than 250 tons per year. Pursuant to 40 CFR 51.308(e), States are required to submit implementation plans that, among other measures, contain either emission limits representing Best Available Retrofit Technology (BART) for certain sources constructed between 1962 and 1977, or alternative measures that provide for greater reasonable progress than BART. Although tribes are not required to submit regional haze implementation plans, they may seek approval to develop a regional haze program under 40 CFR 49.

Pursuant to the 1991 Visibility FIP (40 CFR 52.145(d)), this source was required to phase-in compliance with the SO<sub>2</sub> emission limit, by installing scrubbers in 1997, 1998, and 1999. Further improvements may be necessary for other visibility impairing pollutants.

- (q) The permittee is subject to the requirements of the Asbestos NESHAP (40 CFR 61, Subpart M). The applicable requirements are specified in the permit document.
- (r) The permittee is subject to the requirements of 40 CFR 82 (Protection of Stratospheric Ozone). The applicable requirements are specified in the permit document.

**Summary of Applicable Federal Requirements**

<b>Federal Air Quality Requirement</b>	<b>Current or Future Requirement</b>
Acid Rain Regulations (40 CFR 72-76)	Current
Visibility FIP (40 CFR 52.145(d))	Current
NSPS for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO)	Current

Asbestos NESHAP (40 CFR 61, Subpart M)	Current
Protection of Stratospheric Ozone (40 CFR 82)	Current
Federal Implementation Plan (40 CFR 49.20)	Future
Regional Haze Rule (BART)	Future

## 5. Additional Requirement

The First Reopening to Navajo Generating Station's first Part 71 Permit, was issued on November 13, 2003 to include the requirements of 40 CFR 60, Subpart OOO for the existing limestone handling system. These requirements include PM and opacity limits for the limestone operation. In order to demonstrate compliance with these requirements and pursuant CFR 71.6(a)(3), the reopening permit issued on November 13, 2003 also includes the following testing, monitoring, and recordkeeping requirements for baghouses DC-9, DC-10, and DC-11 which are used to control the emissions from the limestone handling system:

- (a) Once per five (5) years stack testing for particulate matter emissions from the exhaust stacks of baghouses DC-9, DC-10, and DC-11 shall be conducted using EPA Method 5 or Method 17. In addition, if during any twelve (12) consecutive month period visible emissions are observed three times from any one baghouse, the permittee shall conduct a performance test on that baghouse within 120 days of the third observation.
- (b) The permittee shall conduct a weekly visual emission survey of the exhaust stacks of baghouses DC-9, DC-10, and DC-11 while the equipment is operating and during daylight hours, by a person certified in EPA Method 9. If any visible emissions are observed, the permittee shall conduct an opacity test using EPA Method 9 within 24 hours while the equipment is operating in accordance with 40 CFR 60.675.
- (c) Record and maintain the following records for each visible emission observation or Method 9 opacity test:
  1. the date and time of the observation, and the name of the observer.
  2. the unit ID number.
  3. statement of whether visible emissions were detected, and if so, whether they were observed continuously or intermittently.
  4. result of Method 9 test, if required.

The above requirements have been included in the Part 71 permit renewal.

## **6. Endangered Species Act**

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, USEPA is required to ensure that any action authorized, funded, or carried out by USEPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. NNEPA is issuing this federal Part 71 permit pursuant to a delegation from USEPA. However, this permit does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, NNEPA and USEPA have concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

## **7. Use of All Credible Evidence**

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source, NNEPA, and U.S. EPA in such determinations.

## **8. NNEPA Authority**

Authority to administer the Part 71 Permit Program was delegated to the Navajo Nation EPA by USEPA Region IX in part on October 13, 2004 and in whole on March 21, 2006. This permit is issued pursuant to the Voluntary Compliance Agreement between the permittee and the Navajo Nation. The permittee shall comply with the terms of this permit and shall be subject to enforcement of the permit by the Navajo Nation EPA, pursuant to the terms of the Voluntary Compliance Agreement. The permittee's agreement to comply is effective upon the permittee's written acceptance of the permit and expires at the end of the permit term, unless the permit is renewed. The permittee's agreement to comply may be withdrawn during the permit term only if the Voluntary Compliance Agreement is terminated or expires as provided in that Agreement.

## Public Participation

### a. **Public Notice**

As describe in 40 C.F.R. § 71.11(a)(5), all draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and the public comment period is described in 40 C.F.R. § 71.11(d).

There is a 30 day public comment period for actions pertaining to a draft permit. Public notice will be given for this draft permit by mailing a copy of the notice to the permit applicant, the Navajo Nation Environmental Protection Agency, and the affected state (Arizona). A copy of the notice will also be provided to all persons who submitted a written request to be included on the mailing list.

Charlene Nelson  
Navajo Nation Operating Permit Program  
P.O. Box 529  
Fort Defiance, AZ 86504

E-mail: [charlenenelson@navajo.org](mailto:charlenenelson@navajo.org)

Public notice will be published in a daily or weekly newspaper of general circulation in the area affected by this source.

### b. **Opportunity for Comment**

Members of the public may review a copy of the draft permit prepared by NNEPA, this statement of basis for the draft permit, the application, and all supporting materials submitted by the source at:

Navajo Nation Air Quality Control Program  
Route 112 North, Bldg No. F004-51  
Fort Defiance, AZ 86504

Copies of the draft permit and this statement of basis can also be obtained free of charge from NNEPA's website

[www.navajonationepa.org/airqty/permits](http://www.navajonationepa.org/airqty/permits)

or by contacting Charlene Nelson at the NNAQCP address listed above or by telephone at (928) 729-4247. All documents will be available for review at the NNAQCP office indicated above during regular business hours.

If you have comments on the draft permit, you must submit them during the 30-day public comment period. All comments received during the public comment period and all comments made at any public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained

by request. A statement of reason for changes made to the draft permit and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any condition of the draft permit is inappropriate, you must raise all reasonably ascertainable issues and submit all arguments supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative record for this permit or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

**c. Opportunity to Request a Hearing**

A person may submit a written request for a public hearing to Charlene Nelson, at the address listed in Section 7(a) above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, NNEPA will hold a public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, NNEPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

**d. Mailing List**

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued on the Navajo Nation, please send your name and address to Charlene Nelson at the address listed above.