

**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO. 32008**

**I. INTRODUCTION**

This Title V permit renewal is for the operation of Tucson Electric Power Company (TEP) - Springerville Generating Station (SGS), located in Apache County, approximately 15 miles North of Springerville, Arizona. This permit is renewal of Air Quality Permit # 1000105. TEP-SGS presently consists of power generating equipment and support services. It is a coal fired electric generating facility.

**A. Company Information**

Facility Name: Tucson Electric Power Company  
Springerville Generation Station

Mailing Address: One South Church Avenue  
Mail Stop UE204 PO Box 711  
Tucson, AZ 85702

Facility Location: 10 miles north of Springerville on Highway 666; 12 miles east on site  
access Road, Springerville, Apache County, AZ

**B. Attainment Classification** (Source: 40 CFR 81.303)

The air quality control region in which the subject facility is located either is unclassified or is classified as being in attainment of the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants: particulate matter less than 10 microns (PM<sub>10</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur oxides (SO<sub>x</sub>), carbon monoxide (CO), lead (Pb) and ozone (O<sub>3</sub>).

**II. FACILITY DESCRIPTION**

**A. Process Description**

Existing Facility

TEP - SGS is a steam electric generating station. The Standard Industrial Code (SIC) is 4911. TEP-SGS consists of two (2) existing coal-fired steam generating units (Units 1 and 2). In addition, two (2) new coal-fired steam generating units (Units 3 and 4) will be installed. Existing Unit 1 and Unit 2 are rated to produce an electric output of approximately 380 net megawatts each. New Unit 3 and Unit 4 are rated to produce an electric output of approximately 400 net megawatts each. The facility is operated 24 hours a day and 365 days a year. The plant also has an auxiliary boiler which is used for cold start-up for the two steam generating units, fuel handling systems, and ash handling systems.

Coal is delivered to the site by train. Coal is unloaded by means of rotary car dumper at a rate of approximately 3000 tons per hour. Coal is transferred for storage via the covered conveyor belts. Dust collection and suppression systems are utilized at coal transfer points. Fuel oil is delivered by train or truck and is stored in storage tanks.

Steam generating units 1 and 2 normally burn coal; Units 1 and 2 have a capacity to process 5,272,000 tons of coal per year total. Steam is supplied to turbine generator sets. Both Units 1 and 2 each provide 2,890,000 pounds of steam per hour at 2625 psig at 1005<sup>0</sup> F. The steam turbines are tandem compound

reheat turbines with single opposed flow HP-IP rotors and dual double flow low pressure turbines mounted on a single shaft rotating at a rated speed of 3,600 revolutions per minute. The turbines for Units 1 and 2 are designed to operate with main steam of 2400 psig at 1005 ° F and reheated to 1005 ° F with steam exhausting to a condenser.

Mechanical induced draft cooling towers are used to remove heat from the main condenser circulating water systems.

The ash disposal system handles fly ash from both units. Fly ash from the filter baghouse is transferred via a pneumatic system to the fly ash silos. Bottom ash is removed from the boiler and transferred by conveyor pipes to a dewatering bin. Both fly ash and bottom ash are hauled to the ash burial area located on site.

Unit 1 and 2 have the capability of burning coal, fuel oil and used oil. Typical operating scenarios will reflect operating at a capacity factor of zero to 100% for the electric generating units. Unit 1 and 2 are fired primarily with Coal. Alternate Operating Scenarios for Units 1 and 2 include (1) cofiring of fuel oil and coal and (2) For Unit 1 only, cofiring of used oil (< 1% of the daily heat input) and coal.

Unit 3 and 4 will be fired primarily with Coal. Distillate Oil will be used for light-off, start-up, and flame stabilization.

Data from the emission sources forms shows that TEP - SGS emits more than 100 tons per year (tpy) of all criteria pollutants (except lead).

Table 1: Maximum Sustained Process Rate Estimates

Source	Hours	MW	MW-hr/yr
Steam Unit 1	8760	425	3723000
Steam Unit 2	8760	425	3723000
Steam Unit 3	8760	440 (gross)	3854400
Steam Unit 4	8760	440 (gross)	3854400
Auxiliary Boiler	8760	113 (MMBtu/hr)	---

Unit 3 and 4

Major equipment for each unit will consist of a pulverized coal boiler, an extraction-condensing turbine electrical power generator, air pollution control equipment, a water-cooled surface steam condenser, boiler feedwater systems including condensate and feedwater pumps, feedwater heaters and a deaerator. There will be a circulating water system to provide cooling water to the steam condenser, including circulating water pumps, a mechanically-induced draft cooling tower, a water supply pipeline, and a water storage pond. The facility will include coal unloading and storage facilities, ash handling equipment, lime handling, water treatment facilities, as well as plant support equipment including HVAC, fire protection, plant air, potable water and sanitary sewer lines.

The main boiler sustained heat input at full load is estimated at 4200 MMBTU/hr. Oil firing will be for startup and flame stabilization only. Coal and oil burner configurations and combustion control systems will be designed to provide high combustion efficiency and to control production of NO<sub>x</sub> in the flue gas.

The boiler area will be a totally enclosed design. Burners will be located on the front and rear furnace walls or in the four (4) corners of the furnace walls. The coal silos will be located along the boiler front, with an enclosed coal tripper gallery. The principal components of each boiler will be a membrane wall furnace, superheater, reheater, economizer, convection pass, pulverizers, low NO<sub>x</sub> burners, fans, and air heater, flues and ducts, piping and valves.

**B. Air Pollution Control Equipment**

Units 1 and 2 are equipped with a filter baghouse for particulate collection. Flue Gas Desulfurization with Spray Dry Absorbers (SDA) are used to control SO<sub>2</sub>. Low NO<sub>x</sub> burners, overfire air ports and good operating practices control NO<sub>x</sub> emissions.

Units 3 and 4 will be equipped with a Selective Catalytic Reduction (SCR) system to control NO<sub>x</sub>, Flue Glass Desulfurization (FGD) with Spray Dry Adsorbers (SDA) cleanup system for control of SO<sub>2</sub>, and fabric filter baghouse for control of particulate matter.

Dust collection and suppression systems are utilized at coal transfer points. Baghouses are used in Lime Handling operations.

**III. Emissions**

The SGS is capable of operating under different scenarios as outlined above. Typical operating parameters of the steam generating units and auxiliary boiler are given in Table 2.

Table 2

	Unit 1 Boiler	Unit 2 Boiler	Unit 3 Boiler	Unit 4 Boiler	Auxiliary Boiler	Existing Plant Total for Units 1 and 2
Max. Annual proc. Rate	25,316,400,000 lbs steam	25,316,400,000 lbs steam			727,080,000 lbs steam	51,359,880,000 lbs steam/hr
Rated Production Rate	425 MW (gross) 380 MW (net)	425 MW (gross) 380 MW (net)	440 MW (gross) 400 MW (net)	440 MW (gross) 400 MW (net)	113 MMBtu/hr	850 MW (gross) 760 MW (net)
Max. Yearly Usage	Coal: 2,635,884 Ton/Yr Oil: 1,000,000 Gal/Yr	Coal: 2,635,884 Ton/Yr Oil: 1,000,000 Gal/Yr	Coal: 2090455 Ton/Yr Oil: 50,000 gal/yr	Coal: 2090455 Ton/Yr Oil: 50,000 gal/yr	Oil: 7,008,000 Gal/Yr	Coal: 5,271,768 Ton/Yr Oil: 9,008,000 Gal/Yr
Max. Hourly Usage	Coal: 601,800 Lb/Hr Oil: 4,388 Gal/Hr	Coal: 601,800 Lb/Hr Oil: 4,388 Gal/Hr	Coal: 477280 lb/hr Oil: 1575 gal/hr	Coal: 477280 lb/hr Oil: 1575 gal/hr	Oil: 800 Gal/Hr	Coal: 1,203,600 Lb/Hr Oil: 9,576 Gal/Hr
Average Hourly Use.	Coal: 401,200 Lb/Hr Oil: 2,200 Gal/Hr.	Coal: 401,200 Lb/Hr Oil: 2,200 Gal/Hr.			Oil: 373 Gal/Hr.	Coal: 802,400 Lb/Hr Oil: 4773 Gal/Hr.
Higher Heating Value	Coal: 9,500 Btu/lb Oil: 19,900 Btu/lb	Coal: 9,500 Btu/lb Oil: 19,900 Btu/lb	Coal: 8800 Btu/lb	Coal: 8800 Btu/lb	Fuel Oil: 19,900 Btu/lb Normal (#2 fuel oil)	N/A
Potential Sulfur Content	Coal: 2.0% max 0.7% normal Oil: 0.5% max 0.3% normal	Coal: 2.0% max 0.7% normal Oil: 0.5% max 0.3% normal	Coal: 1.0% Oil: 0.2-1.0	Coal: 1.0% Oil: 0.2-1.0	Oil: 0.5% max 0.3% normal	N/A
Potential Ash Content	Coal: 35% max 18% normal Oil: 0.02% max, Trace% normal	Coal: 35% max 18% normal Oil: 0.02% max, Trace% normal	Coal: 21% Oil: Negligible	Coal: 21% Oil: Negligible	Oil: 0.02% max, Trace% normal	N/A

The potential emissions rates from the TEP-SGS may be found in the permit application. See the application for detailed emissions calculations.

**IV. COMPLIANCE HISTORY**

Inspections are being regularly conducted on this source to ensure compliance with the permit. Table 3 summarizes the recent inspections that have been conducted on the source and the results of the inspections

Table 3

Inspection Date	Type of Inspection	FAR NO.	Results
June 23, 2004	Announced	AQD-NRO-50859	In Compliance
May 25 & 26, 2004	Performance Test		In Compliance
May 30, 2002	Unannounced		In Compliance
May 21, 2003	Announced		In Compliance
October 25, 2001	Performance Test (NOx RATA)		In Compliance
May 30, 2001	Unannounced		NOV dated June 1, 2001 for opacity exceedance. Middle coal lowering well, upper gates, of the coal processing system had opacity of 95%. According to July 17, 2001 letter from ADEQ, the NOV is considered resolved.
May 30-31, 2000	Performance Test		In Compliance
June 6, 2000	Unannounced		In Compliance
June 21 & 24, 1999	Performance Test		In Compliance

TEP is subject to certain construction and operation milestones for Unit 3 and 4. One of the milestones is the startup of at least one new unit by December 31, 2007. If at least one new unit starts operations by that date, TEP will have until December 31, 2009 to begin operating the second new unit.

**V. APPLICABLE REGULATIONS**

The Permittee has identified all applicable regulations that apply to each operating unit identified in the permit application. Table 4 summarizes the findings of the Department with respect to the applicability or non-applicability of these regulations. The Department understands that the NSPS Subpart Da provisions that apply to Units 3 and 4 have undergone considerable changes in recent years and may face potential legal challenges in the near future. If the Subpart Da provisions are revised based on any litigation, reconsideration, or petition, the Department will work with TEP to revise the permit and implement the revisions.

Table 4

Unit ID	Start-up date	Control Equipment	Applicable Regulations	Verification
Unit 1 Boiler and Unit 2 Boiler	Unit 1 1/20/78 (commenced construction) Unit 1 - 5/1/85 (commercial operating) Unit 2 - 6/1990 (commercial operating)	Baghouses  Dry Flue Gas Desulfurization Spray Dry Adsorbers (SDA)	EPA approval to Construct (December 21, 1977) conditions VII, IX, X, XI, XII, and XIII. 40 CFR 60.42(a) 40 CFR 60.43(a) A.A.C. R18-2-903.1 A.A.C. R18-2-903.2 40 CFR 60.43 (c ) 40 CFR 60.44(a) 40 CFR 60.44(b) 40 CFR 60.45(a) 40 CFR 60.45(c) 40 CFR 60.45(e) 40 CFR 60.45(f) 40 CFR 60.45(g) 40 CFR 60.46 (a) 40 CFR 60.46 (b) 40 CFR 60.46 (c)	- Unit 1 and 2 both commenced construction after August 17, 1971 and are greater than 73 MW capacity each . There are standards for PM, SO <sub>2</sub> , NO <sub>x</sub> and Opacity from NSPS Subpart D - 40 CFR 60.42, 60.43, 60.44 have the following emission limits PM ≤ 0.10 lb/MMBtu Opacity ≤ 20% except for one six-minute period per hour of not more than 27%. SO <sub>x</sub> ≤ 0.8 lb/MMBtu, SO <sub>x</sub> allowance system NO <sub>x</sub> ≤ 0.7 lb/MMBtu (coal), NO <sub>x</sub> ≤ [(w(260) + x(86) + y(130) + z(300))/(w + x + y + z) for combination fuels - Condition XIII of EPA Approval to Construct (Approval) has the following emission limits for each Unit: PM: 0.034 lb/MMBtu SO <sub>2</sub> : 0.690 lb/MMBtu NO <sub>x</sub> : 0.697 lb/MMBtu Opacity 15%.

			<p>40 CFR 60.46 (d)                  40 CFR 72                  40 CFR 73                  40 CFR 75                  40 CFR 64 (CAM)</p> <p>A.R.S. 426.G.1.</p>	<p>The emission limits in the Approval are more stringent than NSPS limits. ADEQ has streamlined the emission standards for opacity, PM, NO<sub>x</sub>, and SO<sub>2</sub>. Therefore, the emission limits from this Approval were incorporated into this Title V Permit No. 32008</p>
Unit 3 Boiler and Unit 4 Boiler		<p>Fabric filter baghouse</p> <p>Dry flue gas desulfurization</p>	<p>A.A.C. R18-2-406.A.4</p> <p>40 CFR 60.42Da(b)                  40 CFR 60.42Da(a)(1)                  40 CFR 60.42Da(c)</p> <p>40 CFR 60.43Da(a)                  40 CFR 60.43Da(i)(1)</p> <p>40 CFR 60.44Da(d)(1)                  40 CFR 60.44Da(e)(1)</p> <p>40 CFR 60.48Da(c)                  40 CFR 60.48Da(e)                  40 CFR 60.48Da(g)                  40 CFR 60.48Da(h)                  40 CFR 60.48Da(i)</p> <p>40 CFR 60.49Da(a)                  40 CFR 60.49Da(b)                  40 CFR 60.49Da(b)(3)                  40 CFR 60.49Da(f)                  40 CFR 60.49Da( c)                  40 CFR 60.49Da( c)((2))                  40 CFR 60.49Da(1)                  40 CFR 60.49Da(m)                  40 CFR 60.49Da(d)                  40 CFR 60.49Da(k)</p> <p>40 CFR 60.50Da(b)(1)                  40 CFR 60.50Da(e)(2)                  40 CFR 60.50Da(b)(2)                  40 CFR 60.50Da( c)(5)                  40 CFR 60.50Da( c)(3)                  40 CFR 60.50Da( c)(4)                  40 CFR 60.50Da( c)(1)                  40 CFR 60.50Da(d)(2)                  40 CFR 60.50Da(d)(2)</p> <p>40 CFR 60.51Da(a)                  40 CFR 60.51Da(f)                  40 CFR 60.51Da(h)                  40 CFR 60.51Da(i)                  40 CFR 60.51Da(j)                  40 CFR 60.50Da(k)                  40 CFR 60.51Da(b)                  40 CFR 60.51Da(c)                  40 CFR 60.51Da(d)                  40 CFR 60.51Da(e)</p> <p>Condition No. III.A.10.a. and b. of Significant Revision No. 1001554 to Title V Permit No. 1000105                  Condition No. III.E. of Significant Revision No. 1001554 to Title V Permit No. 1000105</p> <p>A.A.C.R18-2-306.02</p> <p>40 CFR 72                  40 CFR 73                  40 CFR 75</p> <p>40 CFR 64 (CAM)</p>	<p>- Unit 3 has commenced construction after September 18, 1978 but before February 28, 2005 and Unit 4 will have commenced construction after February 28, 2005. Both units are greater than 73 MW capacity each. The Opacity, PM, NO<sub>x</sub>, and SO<sub>2</sub> limits from NSPS Subpart Da for Unit 3 and Unit 4 are as follows:</p> <p>Both units subject to opacity <math>\leq</math> 20% except for one six-minute period per hour of not more than 27%.</p> <p>Unit 3 subject to:                  PM <math>\leq</math> 0.03 lb/MMBtu and 1 % of the potential combustion concentration (99% reduction) from coal combustion;                  SO<sub>x</sub> <math>\leq</math> 1.2 lb/MMBtu and 10% of the potential combustion concentration (90%); or 30% of the potential combustion concentration (70 % reduction), when emissions are less than 0.60 lb/MMBtu) heat input derived from combustion of coal; and                  NO<sub>x</sub> <math>\leq</math> 1.6 lb/megawatt-hour gross energy output, based on a 30-day rolling average.</p> <p>Unit 4 subject to:                  PM <math>\leq</math> 0.015 lb/MMBtu heat input derived from coal combustion, or 0.14 lb/MWh gross energy output;                  SO<sub>x</sub> <math>\leq</math> 1.4 lb/MWh gross energy output on a 30-day rolling average basis, or 5% of the potential combustion concentration (95% reduction); and                  NO<sub>x</sub> <math>\leq</math> 1.0 lb/MWh gross energy output on a 30-day rolling average.</p> <p>BACT Limits are as follows:</p> <p>Opacity <math>\leq</math> 15%                  PM <math>\leq</math> 0.015 lb/MMBtu                  PM<sub>10</sub> <math>\leq</math> 0.055 lb/MMBtu                  CO <math>\leq</math> 0.015 lb/MMBtu                  VOC <math>\leq</math> 0.06 lb/ton of coal combusted                  Hydrogen Fluoride <math>\leq</math> 0.00044 lb/MMBtu (BACT for fluorides)</p> <p>BACT limits for Opacity and PM are more stringent than NSPS limits. ADEQ has streamlined the emission standards for opacity and PM. Therefore, the BACT emission limits will be incorporated into the Title V Permit.</p> <p>Case by Case MACT based limit:                  Hydrogen Fluoride <math>\leq</math> 0.00044 lb/MMBtu</p> <p>Federally Enforceable Mercury Limit. Applicable requirement is Condition No. III.A.10.a of Significant Permit Revision 1001554 which is a preconstruction permit for Unit 3 and 4.                  Mercury <math>\leq</math> 0.0000069 lb/MMBtu</p> <p>Voluntary Limit to avoid PSD significance level:                  Lead <math>\leq</math> 0.000016 lb/MMBtu</p>

Unit 4 Boiler			<p>40 CFR 60.45Da          40 CFR 60.48Da(l)          40 CFR 60.49Da(p)          40 CFR 60.49Da( r)            40 CFR 60.50Da(l)          40 CFR 60.52Da(a)</p>	<p>Mercury standard from NSPS Subpart Da            78 x 10<sup>-6</sup> lb/MWH on an output basis</p>
Unit 1, 2, 3, and 4 (Combined Limits)			<p>A.A.C.R18-2-306.02          A.A.C.R18-2-406.H</p>	<p>Emission Caps for SO<sub>2</sub>, NO<sub>x</sub>, and Sulfuric Acid Mist for Units 1,2,3, and 4, in total are as follows:</p> <p>SO<sub>2</sub> ≤ 8,448 lbs per hour after Unit 3 or 4 becomes operational          SO<sub>2</sub> ≤ 7550 tons per year (Optional Limit on Units 1 and 2 before startup of Unit 3 or 4)          9205 tons per year after Unit 3 or 4 becomes operational (Three Unit Cap)          10,800 tons per year, after both Unit 3 and Unit 4 become operational (Four Unit Cap).          NO<sub>x</sub> ≤ 6,330 tons per year (Optional Limit on Units 1 and 2 before startup of Unit 3 or 4)          7,947 tons per year after Unit 3 or 4 becomes operational (Three Unit Cap)          9,600 tons per year, after both Unit 3 and Unit 4 become operational (Four Unit Cap).</p> <p>Sulfuric Acid Mist ≤ 211.0 tons per year</p> <p>The above limits were established to prevent the modifications associated with the addition of Unit 3 and 4 from triggering the PSD significance levels for these pollutants.</p>
Auxiliary Boiler	1/30/78 (commenced construction) 1984 (commercial operating)		<p>A.A.C. R18-2-724.A          A.A.C. R18-2-724.B.          A.A.C. R18-2-724.C.1          A.A.C. R18-2-724.E.          A.A.C. R18-2-724.G.          A.A.C. R18-2-724.J.          A.A.C. R18-2-724.K.</p>	<p>The heat input is 113 MMBtu/hr (&lt; 250 MMBtu/hr) and the date of construction is prior to the trigger date (6/9/89) for 40 CFR 60, Subpart Da. Hence, this unit is subject to R18-2-724. The unit is subject to an opacity standard of 15% and a SO<sub>x</sub> standard of 1.0 lb/MMBtu.</p> <p>PM: E = 1.02Q<sup>0.769</sup></p>
Coal Handling System		Dust Collectors	<p>40 CFR 60.252 (c)          Approval to Construct of December 21, 1977, Condition X.A.            A.A.C.R18-2-406.A.4.            A.A.C.R18-2-612</p>	<p>The process is more than 200 tons per day and the date of construction is after October 24, 1974. Therefore the coal preparation plant is subject to 40 CFR 60, Subpart Y. This system is subject to an opacity standard of 20%.</p> <p>The coal storage pile is subject to an opacity standard of 40%.</p> <p>180 days after startup of the modified coal preparation plant, opacity and PM limits are as follows :</p> <p>Opacity limit is 10% from any coal preparation plant fabric filter baghouse</p> <p>PM ≤ 0.01 grains per dry standard cubic foot from any coal preparation plant fabric filter baghouse.</p>

TSD Outline Draft

Ash Handling Units 1 and 2			A.A.C. R18-702.B A.A.C. R18-2-730.A.1. A.A.C.R18-2-730.B.	The ash handling is subject to the particulate matter standard under A.A.C. R18-2-730 and the general visible emissions standard
Ash Handling Units 3 and 4		Dust Collectors	A.A.C. R18-702.B A.A.C.R18-2-730.A.1. A.A.C.R18-2-730.B.  A.A.C.R18-2-406.A.4.	The ash handling is subject to the particulate matter standard under A.A.C. R18-2-730, the general visible emissions standard, and BACT limits  BACT limits are as follows:  Opacity $\leq$ 10% from any fly ash handling system fabric filter baghouse. This was based on a BACT determination. This limit is more stringent than the 702.B. limit (40%) and is streamlined in the permit.  PM $\leq$ 0.01 grains per dry standard cubic foot (BACT limit)
Lime Preparation Plant Units 1 and 2		Lime Silos Collector Baghouses at Water Treatment Silos(4)	A.A.C. R18-2-702.B A.A.C. R18-2-730.A.1. A.A.C. R18-2-730.B.	Since TEP-SGS only handles lime, it is subject to particulate matter standard under A.A.C. R18-2-730 and the general visible emissions standard
Lime Preparation Units 3 and 4		Lime Silos Collector Baghouses at Water Treatment Silos (4)	A.A.C. R18-2-702.B A.A.C. R18-2-730.A.1. A.A.C. R18-2-730.B. A.A.C.R18-2-406.A.4.	The particulate matter standard under A.A.C.R18-2-730, the general visible emissions standard, and BACT limits apply.  BACT limits are as follows  Opacity $\leq$ 10% from any fly ash handling system fabric filter baghouse. This was based on a BACT determination. This limit is more stringent than the 702.B. limit and is streamlined in the permit.  PM $\leq$ 0.01 grains per dry standard cubic foot (BACT limit)
Cooling Towers 1 and 2		Drift eliminators	A.A.C. R18-702.B A.A.C. R18-2-730.A.1. A.A.C. R18-2-730.B. A.A.C. R18-2-730.D. A.A.C. R18-2-730.G.  A.A.C.R18-2-406.A.4.	Since chromium-based water treatment chemicals are not used, the cooling towers are subject to the particulate matter in A.A.C. R18-2-730 and the general visible emissions standard.  BACT PM limit applicable upon Startup of Unit 3 or 4 is as follows:  PM $\leq$ 108.4 lbs per hour for Cooling Tower 1 or 2
Cooling Towers 3 and 4		High efficiency drift eliminators	A.A.C. R18-702.B A.A.C. R18-2-730.A.1 A.A.C. R18-2-730.B. A.A.C. R18-2-730.D. A.A.C. R18-2-730.G.  A.A.C.R18-2-406.A.4.	Since chromium-based water treatment chemicals are not used, the cooling towers are subject to the particulate matter in A.A.C. R18-2-730 and the general visible emissions standard.  Applicable BACT PM limit is as follows:  PM $\leq$ 12.32 lbs per hour for Cooling Tower 3 or 4.
Solvent Cleaners/ Degreasers			A.A.C. R18-2-730.F.	Periodic activity
Spray Painting		Controls containing no less than 96% of the overspray	A.A.C. R18-2-727 A.A.C. R18-2-702(B) SIP Provision R9-3-527.C.	Periodic Activity
Abrasive Sand Blasting		Wet blasting, enclosure or any other proposed method approved by Director	A.A.C. R18-2-726 A.A.C. R18-702(B)	Periodic Activity
Non Point Sources			A.A.C. R18-2-612, A.A.C. R18-2-604.A A.A.C. R18-2-604.B A.A.C. R18-2-605.A A.A.C. R18-2-605.B A.A.C. R18-2-606	Opacity shall not exceed 40% from open areas, roadways and streets, storage piles or material handling  Requirements for dust control from open areas, roadways and streets, storage piles or material

			A.A.C. R18-2-607.A A.A.C. R18-2-604.B A.A.C. R18-2-804.B. A.A.C. R18-2-602  A.A.C.R18-2-406.A.4.	handling  Open burning prohibited
Mobile Sources	Not Applicable		<u>A.A.C.</u> <i>R18-2-801</i> <i>R18-2-802</i> <i>R18-2-804.A.</i>	These regulations are applicable to all mobile sources
Demolition/ Renovation	Not Applicable		<u>A.A.C.</u> <i>R18-2-1101.A.8</i> <i>(NESHAPs for asbestos)</i>	Relevant requirements applicable to demolition and renovation operations
Internal Combustion Engines			<u>A.A.C.</u> R18-2-719.E. R18-2-719.C.1 R18-2-719.B. R18-2-719.I. R18-2-719.F. R18-2-719.H. R18-2-719.J.	Stationary Rotating Machinery subject to State rules

**VI. PREVIOUS PERMIT CONDITIONS**

**A. Previous Permits**

An Approval to Construct Units 1 and 2 was issued by EPA on December 21, 1977. Another Approval to Construct was issued by EPA on April 11, 1980 for a third unit. However, the third unit was never constructed.

<b>Date Permit Issued</b>	<b>Permit #</b>	<b>Application Basis</b>
December 2, 2004	32442	Minor Permit Modification
September 4, 2002	26519	Minor Permit Modification
April 29, 2002	1001554	Significant Permit Revision
July 27, 1999	1000105	Air Quality Class I Permit
October 18, 1999	1001153	Administrative Admendment
06/17/99	1001044 (11980 ltf)	Minor Permit Modification
The effective date of this permit is July 29, 1999	1000662	Significant Revision to include the Title IV (Acid Rain) Provisions
12/8/95	1000261	Administrative Amendment
10/19/95	1000214	Administrative Amendment
5/25/95	1000140	Administrative Amendment
12/19/94	M010060P4-99	Operating Permit-Renewal of 0316-89
3/3/88	0361-89	Operating Permit
3/3/88	1205	Installation permit
12/30/86	0345-87	Operating Permit
4/11/80	Approval to Construct/Modify a Stationary Source issued by EPA	
12/16/85	0347-86	Operating Permit
12/21/77	Approval to Construct/Modify a Stationary Source Issued by EPA	
8/26/77	1106	Installation Permit

**B. Previous Permit Conditions**

The following are discussions on the previous permits that have been issued to the source after the initial Title V Permit No. 1000105.

**SIGNIFICANT PERMIT REVISION NO. 1001554**

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att. A	X				General provisions - revised to represent most recent language
Att.B.I.A		X			Material permit conditions indicated by a double underlined print. Renumbered to I.C.
Att. B.I.B		X			Definitions. Renumbered to I.D. Added regulatory citations where missing.
Att.B.I.C		X			Renumbered to I.E.
Att. B.I.D		X			Renumbered to I.F.
Att.B.I.E		X			Renumbered to I.G.
Att.B.I.F		X			Renumbered to I.H.
Att.B.I.G		X			Renumbered to I.A.
Att.B.I.H		X			Renumbered to I.B.
Att.B.II.A.1		X			Opacity Standard of 15% for Unit 1 or 2. Renumbered to II.C.1.a..
Att.B.II.A.1.a,b,c			X		Definition of Startup, Shutdown, and Malfunction removed to be consistent with SRP permit. Definitions of Startup, Shutdown and Malfunctions (SSM) shall be the definitions from §60.2 for SSM and also A.A.C.R18-2-101.65 for Malfunction. These definitions are in I.D.7, 10, and 11 of Attachment "B" permit no. 32008.
Att.B.II.A.2		X			PM Standard of 0.034 lbs/MMBtu for Units 1 and 2. Renumbered to II.C.1.b.
Att.B.II.A.3		X			SO <sub>2</sub> Standard of 0.690 lbs/MMBtu for Units 1 and 2 the boilers of Units 1 and 2. Renumbered to II.D.1.
Att.B.II.A.4		X			NO <sub>x</sub> Standard of 0.697 lbs/MMBtu for Units 1 and 2. Renumbered to II.E.1.
Att.B.II.A.5		X			Renumbered to II.C.1.b.(2), II.D.1.c., and II.E.1.b.
Att.B.II.A.6.a.,b., and c	X				Revised so that Unit 1 can also burn fuel oil during times of startup or shutdown. Unit 1 shall burn only coal; co-firing of coal and fuel oil; fuel oil during times of startup and shutdown; and co-firing of coal and used oil subject to used oil limitations. Renumbered to II.B.1.a.(1)-(3)

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att. B.II.A.7	X				Unit 2 shall burn only coal; co-firing of coal and fuel oil, or fuel oil during times of startup and shutdown. Renumbered to II.B.1.b.
Att.B.II.A.8		X			Vapor Extractor Blower Vents, etc. renumbered to II.B.2.
Att. B.II.B.1		X			Particulate Matter air pollution control requirements renumbered to II.C.2.a.
Att.B.II.B.2		X			SO <sub>2</sub> air pollution control requirements renumbered to II.D.2.
Att.B.II.C.1		X			Fuel change logging requirements for Unit 1 and 2 renumbered to II.B.1.c.(1).
Att.B.II.C.2.a	X				Requirement for CMS for opacity, SO <sub>2</sub> ,NO <sub>x</sub> , and CO <sub>2</sub> . CMS for opacity language changed to be consistent with Unit 3 and 4 language. This is a voluntarily accepted language change which is not less stringent. Voluntary acceptance of this condition does not mean that the Unit 1 and 2 are accepting NSPS Subpart Da applicability. SO <sub>2</sub> , NO <sub>x</sub> and CO <sub>2</sub> renumbered to II.C.3.a.(1), II.D.3.a., and II.E.2.a. Citation made more specific and voluntary .
Att.B.II.C.2.b		X			Part 75 CEMs requirements. Specification and Test Procedures. QA and QC Procedure, Data Reduction. Renumbered to II.D.3.b. and II.E.2.b.
Att.B.II.C.2.c		X			Comply with Part 75 Subparts F and G recordkeeping and reporting requirements. Renumbered to II.C.3.a.(1)(b), II.D.3.c., and II.E.2.c.
Att.B.II.C.2.d	X				COMS Part 60 requirements. Condition revised at company's request to be consistent with Units 3 and 4 permit language without accepting Subpart Da applicability. Condition does not lose any stringency. See explanation above. In addition, condition revised to add "notification and recordkeeping requirements at §60.7". New condition numbers will be II.C.3.a.(2) and II.C.3.a.(1)( c).
Att.B.II.C.3			X		Periodic Monitoring for PM Emissions removed and replaced by CAM provisions in Condition II.C.3.b.
Att.B.II.C.4	X				Excess Emissions. Renumbered to II.C.3.c., II.D.3.d., and II.E.2.d. II.C.3.c.condition for opacity was changed to exclude periods of startup, shutdown, or malfunction from the definition of excess emissions.
Att.B.II.C.5		X			Coal sampling requirement. Renumbered to II.B.1.d.(2) .
Att.B.II.C.6		X			Used oil recordkeeping and reporting requirements . Renumbered to II.B.1.c.(2).

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.II.D		X			Opacity requirement for annual Method 9 test removed because sufficient monitoring is in place. Requirements from §60.46(b)(1) and §60.46(d)(1) added. Renumbered to II.C.4. , II.D.4, and II.E.3.
Att.B.II.D.6		X			Renumbered to II.B.1.d.(1).
Att.B.III.A.1	X				Opacity Standard for Unit 3 or 4 of greater than 15 percent opacity based on a six-minute average. Changed from six-minute rolling average. Also III.a.1.a. and b. were combined into one condition. Renumbered to III.C.1.a.
Att.B.III.A.2.a		X			PM emission limit for Unit 3 or 4 of 0.015 lb/MMBtu heat input. Compliance based on a three-hour averaging period. Renumbered III.C.b.(1).
Att.B.III.A.2.b		X			PM <sub>10</sub> emission limit for Unit 3 or 4 of 0.055 lb/MMBtu heat input. Compliance based on a three-hour averaging period. Renumbered III.C.b.(2)
Att.B.III.A.2.c		X			PM and PM <sub>10</sub> emissions limits shall apply at all times except during periods of startup, shutdown, or malfunction. Renumbered III.C.1.b.(3)
Att.B.III.A.3.a		X			SO <sub>2</sub> emission limit for Unit 3 or 4 from NSPS Subpart Da. Renumbered to III.D.1.a.
Att.B.III.A.3.b and c		X			NSPS Subpart Da requirements. Renumbered to III.D.1.b. and c.
Att.B.III.A.3.d		X			Sulfur Dioxide Emission Caps. Renumbered to IV.B.1.
Att.B.III.A.4.a		X			NOx emission limit for Unit 3 or 4 from NSPS Subpart Da. Renumbered to III.E.1.a.
Att.B.III.A.4.b		X			NOx emission emission limit from NSPS Subpart Da standard shall apply at all times except during periods of startup, shutdown or malfunction. Renumbered to III.E.1.b.
Att.B.III.A.4.c		X			Nitrogen Oxides Emission Cap. Renumbered to IV.C.1.
Att.B.III.A.5		X			Carbon Monoxide BACT limit for Unit 3 or 4 of 0.15 lb/MMBtu heat input based on a 30 day rolling average. Renumbered to III.F.
Att.B.III.A.6		X			VOC BACT limit for Unit 3 or 4 of 0.06 lb/ton coal combusted. Compliance shall be determined using a three-hour averaging period. Renumbered to III.G.1.
Att.B.III.A.7		X			Hydrogen Fluoride case by case MACT and BACT(for fluorides) limit for Unit 3 or 4 of 0.00044 lb/MMBtu heat input. Compliance shall be determined using a three hour averaging period. Renumbered to III.H.1.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.III.A.8		X			Lead limit for Unit 3 or 4 to keep project below significance threshold for Lead. Renumbered to III.I.1.
Att.B.III.A.9		X			Sulfuric Acid Emissions Cap for Units 1-4 Renumbered to IV.D.1.
Att.B.III.A.10		X			Mercury limit for Unit 3 and 4. Renumbered to III.K. 1.a. and b.
Att.B.III.A.11		X			Fuel Limitations for Unit 3 and 4. Renumbered to III.B.1.
Att.B.III.A.12		X			Vapor Extractor Blower Vents, etc. renumbered to III.B.2.
Att.B.III.B.1		X			Unit 3 and 4 - Maintain and operate baghouses consistent with good air pollution control practice for minimizing particulate matter emissions. Renumbered to III.C.2.a. Citation made more specific.
Att.B.III.B.2		X			Unit 3 and 4 - Maintain and operate the dry flue gas desulfurization system in a manner consistent with good air pollution control practice for minimizing SO2 emissions. Renumbered to III.D.2.
Att.B.III.B.3		X			Unit 3 and 4 – Maintain and operate the SCR system in a manner consistent with good air pollution control practice for minimizing NOx emissions. Renumbered to III.E.2.
Att.B.III.C.1a		X			Install, calibrate,maintain, and operate CMS for opacity from Unit 3 and 4. Renumbered to III.C.3.a.(1)(a)
Att.B.III.C.1.b		X			COMS data reduction requirements from NSPS Subpart A. Renumbered to III.C.3.a.(1)(b)
Att.B.III.C.2.a.-m		X			CAM for PM emissions. Renumbered to III.C.3.b.(1)-(13)
Att.B.III.C.3		X			Requirement to install continuous flow monitoring systems for Unit 3 and 4. Renumbered to III.L.1.
Att.B.III.C.4		X			Requirement to install a continous monitoring system to measure carbon dioxide from Unit 3 and 4. Renumbered to III.L.2.
Att.B.III.C.5	X				Requirement to install a continuous monitoring system for measuring diluent carbon dioxide or oxygen concentration at inlet and outlet of SO <sub>2</sub> control device. Revised to allow for alternative method as allowed by 40 CFR 60 Subpart Da and the permit. Renumbered to III.L.3.
Att.B.III.C.6		X			Requirement to install wattmeters to measure gross electrical output from Unit 3 and 4 on a continuous basis. Renumbered to III.L.4.
Att.B.III.C.7		X			Determine and record heat input to Unit 3 and 4 for every hour or part of an hour any fuel is combusted. Renumbered to III.L.5.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.III.C.8		X			Install continuous monitoring systems for measuring SO <sub>2</sub> from Unit 3 and 4 at the inlet and outlet of the SO <sub>2</sub> control device. Renumbered to III.D.3.a.
Att.B.III.C.9		X			Compliance Determination Requirements for NSPS SO <sub>2</sub> Emission Standard. Renumbered to III.D.3.b.
Att.B.III.C.10		X			Compliance Determination Requirements for SO <sub>2</sub> Emission Caps. Renumbered to IV.B.2.
Att.B.III.C.11		X			Install continuous monitoring systems for measuring NO <sub>x</sub> from Unit 3 and 4. Renumbered to III.E.3.a.
Att.B.III.C.12		X			Compliance Determination Requirements for NSPS NO <sub>x</sub> Emission Standard. Renumbered to III.E.3.b.
Att.B.III.C.13		X			Compliance Determination Requirements for NO <sub>x</sub> Emission Caps. Renumbered to IV.C.2.
Att.B.III.C.14		X			Monitoring for Carbon Monoxide Emissions. Renumbered to III.F.2.a.
Att.B.III.C.15		X			Compliance Determination Requirements for Carbon Monoxide Emission Standard. Renumbered to III.F.2.b.
Att.B.III.C.16		X			CAM requirements for HF Emissions. Renumbered to III.H.2.a.
At.B.III.C.17		X			Compliance Determination Requirements for Sulfuric Acid Mist Emission Cap. Renumbered to IV.D.2.a.
Att.B.III.C.18	X				NSPS Requirements for Continuous Monitoring System. Added Requirement for "Notification and Recordkeeping Requirements at 40 CFR 60.7. Renumbered to III.C.3.a.(2), III.D.3.c., III.E.3.c., III.F.2.a.(2), III.L.6.
Att.B.III.C.19	X				Acid Rain Requirements for Continuous Monitoring System. Revised opacity monitoring system requirements to remove non applicable requirements. Renumbered to III.C.3.a.(3), III.D.3.d., III.E.3.d., and III.L.7.
Att.B.III.C.20		X			Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR part 75, subparts F and G, respectively. Renumbered to III.C.3.a.(4), III.D.3.e., III.E.3.e., and III.L.8.
Att.B.III.D.1		X			Opacity Testing Requirements. Renumbered to III.C.4.a.
Att.B.III.D.2		X			Particulate Matter Testing requirements. Renumbered to III.C.4.b.
Att.B.III.D.3		X			SO <sub>2</sub> Testing requirements. Slight wording change to III.D.3.e. Renumbered to III.D.4.
Att.B.III.D.4		X			NO <sub>x</sub> Testing Requirements. Slight wording change to III.D.4.d. Renumbered to III.E.4.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.III.D.5		X			CO Testing Requirements. Renumbered to III.F.3.
Att.B.III.D.6		X			VOC Testing Requirements. Renumbered to III.G.2.
Att.B.III.D.7		X			Fluorides Testing Requirements. Renumbered to III.H.3.
Att.B.III.D.8		X			Lead Testing Requirements. Renumbered to III.I.2.
Att.B.III.D.9		X			Sulfuric Acid Mist Testing Requirements. Renumbered to III.J.1.
Att.B.III.D.10	X				Mercury Testing Requirements. Added NSPS Subpart Da Testing requirements. Renumbered to III.K.4.
Att.B.III.E		X			Mercury General Provisions. Renumbered to III.B.3.a.
Att.B.IV.A.1		X			Opacity Standard of 15% for Auxiliary Boiler. Renumbered to V. C.1.a.
Att.B.IV.A.2		X			Particulate Matter standard $E = 1.02Q^{0.769}$ For the Auxiliary Boiler. Renumbered to V.C.1.b.
Att.B.IV.A.3		X			SO <sub>2</sub> Standard of 1.0 lb/MMBtu heat input for the Auxiliary Boiler. Renumbered to V.D.1.
Att.B.IV.A.4.a. and b		X			Auxiliary Boiler fuel limitation. Only No. 2 diesel fuel is allowed. High sulfur fuel limitation. Renumbered to V.B.1.a. and b.
Att.B.IV.B.1	X				Revised. Requires Method 9 observer conduct survey of visible emissions from Auxiliary Boiler for every 120 hours of continuous operation. If opacity appears to exceed standard, conduct Method 9. Initiate corrective action if opacity exceeds 15%. Renumbered to V.C.2.a.
Att.B.IV.B.2		X			Keep records of fuel firing rate, higher heating value, and ash content. Renumbered to V.C.2.b.
Att.B.IV.B.3		X			Keep records of fuel supplier contractual agreement including name of oil supplier, sulfur content and heating value of oil from which the shipment came; and the method used to determine the sulfur content of the oil. Renumbered to V.D.2.
Att.B.IV.B.4.-5		X			Keep dates and hours of operation of the auxiliary boiler and for the period of each compliance certification. Renumbered to V.B.2.a. and b.
Att.B.IV.B.6		X			Report all 6 minute periods in which opacity exceeds 15% from the auxiliary boiler. Renumbered to V.C.2.a.(3)
Att.B.V.A.1		X			PM standard for Cooling Towers 1 and 2. Renumbered to VI.C.1.a.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.V.A.2		X			Permittee shall not emit Gaseous or Odorous materials applicable to Cooling Towers 1 and 2. Renumbered to VI.B.1.a.
Att.B.V.A.3		X			Cooling Towers 1 and 2 stack requirements. Renumbered to VI.B.1.b.
Att.B.V.B.1		X			Effective Date for limits effective on startup of Unit 3 or 4, for Cooling Towers 1 and 2. Renumbered VI.C.1.a.(2), VI.B.2., VI.C.2., and VI.C.3.a.
Att.B.V.B.2.a	X				PM limit for Cooling Tower 1 or Cooling Tower 2 effective upon startup of Unit 3 or 4. Limit changed to 108.4 lbs per hour, total for each tower. Renumbered to VI.C.1.a.(2)(a).
Att.B.V.B.2.b		X			Circulating water flowrate limit. Renumbered to VI.B.2.a.
Att B.V.B.3		X			Equip. Cooling Towers 1 and 2 with drift eliminators. Renumbered to VI.C.2.
Att.B.V.B.4		X			Monitoring, Recordkeeping, and Reporting Requirements for Cooling Towers 1 and 2 in effect on startup of either Unit 3 or Unit 4. Renumbered to VI.C.3.
Att.B.VI.A.1		X			Limit on circulating water flow rate in Cooling Tower 3 or Cooling Tower 4 of 200,000 gallons per minute, total for each tower. Renumbered to VII.B.1.
Att.B.VI.A.2.a	X				Cooling Tower 3 or 4 PM limit changed to 12.32 lbs per hour, total for each tower. Renumbered to VII.C.1.a(1)
Att.B.VI.A.2.b		X			Cooling Tower 3 or 4 PM limit $E = 55P^{0.11} - 40$ total for each tower. Renumbered to VII.C.1.a.(2).
Att.B.VI.A.3-4		X			Gaseous or Odorous Materials. Renumbered to VII.B.2.
Att.B.VI.B.1		X			Equip. Cooling Towers 3 and 4 with drift eliminators. Renumbered to VII.C.2.
Att.B.VI.C		X			Monitoring, Recordkeeping, and Reporting Requirements for Cooling Towers 3 and 4. Renumbered to VII.C.3.
Att.B.VII.A	X				20% opacity limit for Coal Preparation Plant. Condition revised because 20% opacity from the NSPS is currently applicable to existing coal preparation plant Renumbered to VIII.B.1.a.(1)
Att.B.VII.B.1		X			Maintain and operate baghouses at Coal Preparation Plant consistent with good air pollution control practices. Renumbered to VIII.B.2.a.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.VII.B.2		X			Control requirements for rail unloading area; discharge hoppers, discharge point from the conveyor carrying coal from the feeder; active storage pile; reserve storage pile; discharge from the reclaim hoppers; crusher structure; and coal storage silos. Renumbered to VIII.B.2.b..
Att.B.VII.B.3		X			Operate and maintain a covered conveyor belt transfer system. Renumbered to VIII.B.2.c.
Att.B.VII.C	X				Monitoring, Recordkeeping, and Reporting Requirements Coal preparation Plant. Combined conditions with requirements from Att.B.VII.D.4. Renumbered to VIII.B.3.a.
Att.B.VII.D.1			X		Effective Date. The 10% opacity limit is already stated to be effective on and after the date the performance test is required to be conducted (180 days after startup of the modified coal preparation plant..
Att.B.VII.D.2.a		X			Opacity limit for fabric filter baghouse of 10%. Renumbered to VIII.B.1.a.(2)
Att.B.VII.D.2.b		X			PM limit for fabric filter baghouse of 0.01 grains/dscf. Renumbered to VIII.B.1.b.
Att.B.VII.D.2.c	X				Opacity limit for coal storage pile of 40%. Revised because the 40% opacity requirement also applies to any existing coal storage pile in accordance with A.A.C-R18-2-612. In addition, startup, shutdown, or malfunction does not apply here and therefore, reference to these terms were deleted. Renumbered to VIII.B.1.a.(3).
Att.B.VII.D.3		X			Air Pollution Control Requirements effective on and after date of performance test (opacity) required 180 days after startup of the modified coal preparation plant Renumbered to VIII.B.2.d.
Att.B.VII.D.4	X				Monitoring, Recordkeeping, and Reporting Requirements from Coal preparation Plant, Coal storage pile, and fabric filter baghouse. Combined conditions with requirements from Att.B.VII.C. Renumbered to VIII.B.3.a.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.VII.D.5	X				Opacity Testing Requirements. Revised to create 2 conditions, one for compliance with VII.A. and one for compliance with VII.D.2.a. and VII.D.2.c. because issuance of the permit may occur prior to startup of the modified coal preparation plant and the 20% and 40% opacity requirements are currently applicable requirements. Also, the conditions now specify whether a six minute or three hour Method 9 is required. Initial NSPS test is a 3 hour test. 40% opacity limit is a BACT and state requirement only so 3 hour test not required.. In addition, particulate matter test added to the testing section for 2 out of 6 the new baghouses. Finally, where applicable, the tests are now required 180 days after startup of the modified coal preparation plant. Old language required test 180 days after startup of Unit 3 or 4 or upon the beginning of construction of modifications to the coal preparation plant, whichever occurs first. . Renumbered to VIII.B.4.a.(1) and (2)
Att.B.VIII.B.A.1	X				Lime Handling – Units 1 and 2: Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Renumbered to IX.B.1.a.(1)
Att.B.VIII.A.2.a		X			Lime Handling - Units 1 and 2: PM limit $E = 4.10P^{0.67}$ for $P \leq 30$ tons per hour. Renumbered to IX.B.1.b.(1)
Att.B.VIII.A.2.b		X			Lime Handling - Units 1 and 2: PM limit $E = 55P^{0.11} - 40$ for $P > 30$ tons per hour. Renumbered to IX.B.1.b.(2)
Att.B.VIII.B		X			Lime Handling - Units 1 and 2: Maintain and operate enclosure system and baghouses consistent with good air pollution control practices. Renumbered to IX.B.2.
Att.B.VIII.C	X				Opacity monitoring requirements for Lime Handling – Units 1 and 2. Revised to refer back to opacity standard rather than listing it there. This is due to the change to the opacity standard. 20% after April 23, 2006. Renumbered to IX.B.3.a.
Att.B.VIII.C.2		X			Maintain and operate the baghouses in accordance with Best Management Practices. Keep records of emissions related maintenance performed on the baghouses. Renumbered to IX.B.3.b.
Lime Handling – Units 3 and 4					

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.IX.A.1.a	X				Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Renumbered to X.B.1.a.(1)
Att.B.IX.A.1.b		X			Opacity limit is 10% from fabric filter baghouse(s). Renumbered to X.B.1.a.(2)
Att.B.IX.A.2.a		X			PM limit for baghouse of 0.01 grains/dry standard cubic foot. Renumbered to X.B.1.b.(1)
Att.B.IX.A.2.b. (1)		X			PM limit $E = 4.10P^{0.67}$ for $P \leq 30$ tons per hour. Renumbered to X.B.1.b.(2)(a).
Att.B.IX.A.2.b. (2)		X			PM limit $E = 55P^{0.11} - 40$ for $P > 30$ tons per hour. Renumbered to X.B.1.b.(2)(b).
Att.B.IX.B.a		X			Utilize enclosures and fabric filter baghouses to control PM emissions. Renumbered to X.B.2.
Att.B.IX.B.b		X			Maintain and operate enclosures and fabric filter baghouses in a manner consistent with good air pollution control practice. Renumbered to X.B.2.b.
Att.B.IX.C.1.a.-d		X			Opacity Monitoring for 10% opacity requirement. Renumbered to X.B.3.a.(1)-(4).
Att.B.IX.C.1.e.-g		X			Opacity monitoring requirements for 40% requirement. Revised to refer back to opacity standard rather than listing it there. This is due to the change to the opacity standard (20% after April 23, 2006). Renumbered to X.B.3.a.(5)-(7).
Att.B.IX.C.2		X			Maintain records of emissions related maintenance performed on lime handling system fabric filter baghouses. Renumbered to X.B.3.b.
Fly Ash Handling – Units 1 and 2					
Att.B.X.A.1	X				Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Renumbered to XI.B.1.a.
Att.B.X.A.2.a		X			PM limit $E = 4.10P^{0.67}$ for $P \leq 30$ tons per hour. Renumbered to XI.B.1.b.(1).
Att.B.X.A.2.b		X			PM limit $E = 55P^{0.11} - 40$ for $P > 30$ tons per hour. Renumbered to XI.B.1.b.(2)

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att.B.X.B	X				Air Pollution Control Equipment Requirements. Section revised to add conditions from Minor Permit Revision for IGS fly ash and Minor Permit Revision 26519. In addition Condition X.B.1. revised to remove the word economizer. Renumbered to XI.B.2.
Att.B.X.C	X				Opacity monitoring requirements for 40% requirement . Revised to refer back to opacity standard rather than listing it there. This is due to the change to the opacity standard (20% after April 23, 2006). Renumbered to XI.B.3.a.
Fly Ash Handling – Units 3 and 4					
Att.B.XI.A.1.a	X				Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Renumbered to XI.B.1.a.
Att.B.XI.A.1.b		X			Opacity limit of 10% from any fabric filter baghouse. Renumbered to XII.B.1.b.
Att.B.XI.A.2		X			PM limits. Renumbered to XIII.B.2.
Att.B.XI.B		X			Air Pollution Control Requirements. Renumbered to XIII.C.
Att.B.XI.C	X				Opacity monitoring requirements for 40% requirement . Revised to refer back to opacity standard rather than listing it there. This is due to the change to the opacity standard (20% after April 23, 2006). PM monitoring. Renumbered to XIII.D.
Non-Point Sources					
Att.B.XII.A			X		Emission Limits and Standards. Renumbered to XIII.A.
Att.B.XII.B	X				Biweekly opacity monitoring requirements added. Renumbered to XIII.C.
Att.B.XII.C			X		Additional Emission Limits. Renumbered to XIII.B. Renamed Air Pollution Control Equipment. Effective Date language reworded slightly.
Abrasive Blasting					
Att.B.XIII.A	X				Opacity limit revised to reflect current requirement. Opacity shall not exceed 40% until April 23, 2006, after which, opacity shall not exceed 20%. Renumbered to XIV.A.
Att.B.XIII.B		X			Monitoring, Recordkeeping and Reporting Requirements. Renumbered to XIV.B.

Significant Permit Revision #1001554, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Use of Paints					
Att.B.XIV.A	X				Emission Limits and Standards. Renumbered to XV.A.
Att.B.XIV.B		X			Monitoring, Recordkeeping, and Reporting Requirements. Renumbered to XV.B.
Solvent Cleaning./Degreasing,Dipping Operations					
Att.B.XV.A		X			Emission Limits and Standards. Renumbered to XVI.A.
Mobile Sources					
Att.B.XVI.A		X			Emission Limits and Standards. Renumbered to XVII.A.
Att.B.XVI.B		X			Monitoring, Recordkeeping and Reporting Requirements. Renumbered to XVII.B.
Demolition/Renovation					
Att.B.XVII.A		X			Emission Limits and Standards. Renumbered to XVIII.A.
Att.B.XVII.B		X			Monitoring, Recordkeeping and Reporting Requirements. Renumbered to XVIII.B.
Nonvehicle Air Conditioner Maintenance and/or Services					
Att.B.XVIII.A		X			Emission Limits and Standards. Renumbered to XIX.A.
Att.B.XVIII.B		X			Monitoring, Recordkeeping and Reporting Requirements. Renumbered to XIX.B.
Ambient Air Monitoring					
Att.B.XIX	X				Permit shield added to section. Renumbered to XXI.
Attachment C			X		Applicable requirements have been identified
Attachment D	X				Equipment List.
Attachment E			X		Insignificant activities listed in the TSD

Minor Revision #32442	Determination				Comments
	Revise	Keep	Delete	Stream-line	
1.		X			Renumbered to XI.B.2.d.(1)
2.		X			Renumbered to XI.B.2.d.(2)
3.		X			Renumbered to XI.B.2.d.(3)
4.			X		Notification received

Minor Revision #26519, References	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att. B.II.D.3.a		X			Renumbered to XI.B.2.b.
Att. B. II.D.3.b		X			Renumbered to XI.B.3.b.
Att.D Equipment List		X			

## PERIODIC MONITORING REQUIREMENTS

### *Units 1 and 2*

Opacity: The units are subject to an opacity standard of  $\leq 15\%$ . The Permittee is required to operate a continuous monitoring system for opacity at all times when the units are in operation. The system is required to meet the requirements of 40 CFR §60.13, 40 CFR §60 Appendix B-Performance Specification 1, and 40 CFR §75.

NO<sub>x</sub> The units are subject to a nitrogen oxide emission limit of 0.697 lb/MMBtu while burning coal. The applicable regulations for this emission limit are Approval to Construct of December 21, 1977, Condition XIII and 40 CFR 60.44. Compliance test results indicate that the units are able to meet the standard. The Permittee is required to operate a continuous emissions monitoring system (CEMS) for recording emissions of nitrogen oxides. The monitoring system is required to meet the requirements of 40 CFR 60.13 and 40 CFR 75, Appendix A and B. In additional, annual performance tests to determine the NO<sub>x</sub> concentration will be required

SO<sub>x</sub>, and H<sub>2</sub>SO<sub>4</sub>: Refer to discussion under Units 3 and 4 below for limits applicable to Units 1,2,3, and 4 total. Individual limits (if applicable) and pollutant monitoring for these units are discussed under Section VIII CAM of this document .

### *Units 3 and 4*

Opacity: Each of the units is subject to an opacity standard of  $\leq 15$  percent, based on a six-minute average, representing BACT. Other, less stringent opacity standards (such as that under 40 CFR Part 60, Subpart Da, §60.42a(b)) have been streamlined out of the permit.

The Permittee is required to operate a continuous monitoring system for opacity at all times when the units are in operation. The continuous opacity monitoring system is required to meet the performance specifications in 40 CFR Part 60, Appendix B. In addition, initial and annual performance tests using EPA Method 9 are required.

SO<sub>2</sub>: Each of the units is subject to several different SO<sub>2</sub> emission standards with different averaging periods and forms of expression. First, each unit is subject to the SO<sub>2</sub> standard under 40 CFR Part 60, Subpart Da, §60.43Da(a), which requires that either a specified emission rate or a specified control efficiency be achieved. Second, each unit is subject to the Acid Rain Program provisions at 40 CFR Part 72, which requires that the Permittee hold allowances for all SO<sub>2</sub> emissions. Third, the total SO<sub>2</sub> emissions from Unit 1,2,3, and 4 are

subject to a short-term emission cap of 8,448 lb/hr (based on a three-hour rolling average). This short-term emission cap is sufficient to ensure compliance with the SO<sub>2</sub> National Ambient Air Quality Standards and PSD Increment. Fourth, the total SO<sub>2</sub> emissions from Unit 1 through Unit 4 are subject to the following emission caps, calculated on a rolling 12-month sum basis:

7,550 tons per year (optional limit) before startup of Unit 3 or 4  
9,205 tons per year after startup of Unit 3 or 4  
10,800 tons tons per year after startup of Units 3 and 4

These emission caps are sufficient to ensure that the project does not result in a significant net emissions increase.

The Permittee is required to operate continuous emissions monitoring systems (CEMS) for recording SO<sub>2</sub> emissions from each unit. These CEMS are required to meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, Appendices A and B. These CEMS will be used to demonstrate compliance with all SO<sub>2</sub> emission standards. The CEMS also are used for the required initial performance tests.

CAM requirements under 40 CFR Part 64 are not applicable to the SO<sub>2</sub> emission standards for Unit 3 and Unit 4 because each of these emission standards is exempted under 40 CFR 64.2.b(1). The NSPS standards are exempt under §64.2.b(1)(vi) because the regulation includes a continuous compliance determination method. The voluntarily accepted emission caps are exempt under §64.2.b(1)(v) because they meet the requirements under 40 CFR 70.4(b)(12). The applicable Acid Rain Program emission standards are specifically exempted under §64.b(1)(iii).

It should be noted that compliance with the annual emission caps are required by the permit. One of the measures available to the Permittee for complying with the emission cap is to halt or reduce operation. A.A.C. R18-2-306 provides that needing to halt or reduce operation in order to comply with a permit condition does not constitute a defense in an enforcement action. In addition, A.R.S. §49-462 provides that the Director may file an action for injunctive relief, which may include shutdown of the source, if a violation of a permit term occurs.

NO<sub>x</sub>:

Each of the units is subject to the NSPS NO<sub>x</sub> standard under 40 CFR Part 60, Subpart Da, §60.44a(d)(1), and the Acid Rain Program NO<sub>x</sub> standard under 40 CFR Part 76. In addition, the total NO<sub>x</sub> emissions from Unit 1 through Unit 4 are subject to the following emission caps, calculated on a rolling 12-month sum basis:

6,300 tons per year (optional limit) before startup of Unit 3 or 4  
7,947 tons per year after startup of Unit 3 or 4  
9,600 tons tons per year after startup of Unit 3 and 4

These emission caps are sufficient to ensure that the project does not result in a significant net emissions increase.

The Permittee is required to operate continuous emissions monitoring systems (CEMS) for recording NO<sub>x</sub> emissions from each unit. These CEMS are required to meet the requirements of 40 CFR Part 75, Appendices A and B. These CEMS will be used to demonstrate compliance with all NO<sub>x</sub> emission standards. The CEMS also are used for the required initial performance tests.

CAM requirements under 40 CFR Part 64 are not applicable to the NO<sub>x</sub> emission standards for Unit 3 and Unit 4 because each of these emission standards is exempted under 40 CFR 64.2.b(1). The NSPS standards are exempt under §64.2.b(1)(vi) because the regulation includes a continuous compliance determination method. The voluntarily accepted emission cap is exempt under §64.2.b(1)(v) because it meets the requirements under 40 CFR

70.4(b)(12). The applicable Acid Rain Program emission standard is specifically exempted under §64.2.b(1)(iii).

It should be noted that compliance with the annual emission caps are required by the permit. One of the measures available to the Permittee for complying with the emission cap is to halt or reduce operation. A.A.C. R18-2-306 provides that needing to halt or reduce operation in order to comply with a permit condition does not constitute a defense in an enforcement action. In addition, A.R.S. §49-462 provides that the Director may file an action for injunctive relief, which may include shutdown of the source, if a violation of a permit term occurs.

CO: Each of the units is subject to a CO standard of 0.15 lb/MMBtu heat input, based on a 30-day rolling average, representing BACT. The Permittee is required to operate continuous emissions monitoring systems (CEMS) for recording CO emissions from each unit. These CEMS are required to meet the requirements of 40 CFR Part 60, Appendices B and F. The CEMS also are used for the required initial performance tests.

CAM requirements under 40 CFR Part 64 are not applicable to the CO emission standard for Unit 3 and Unit 4 because no control device is used to achieve compliance.

VOC: Each of the units is subject to a VOC standard of 0.06 lb per ton of coal combusted, based on a three-hour averaging period, representing BACT. The Permittee is required to perform initial and annual performance tests using EPA Method 18 or 25.

CAM requirements under 40 CFR Part 64 are not applicable to the VOC emission standard for Unit 3 and Unit 4 because no control device is used to achieve compliance.

Lead: Each of the units is subject to a lead standard of 0.000016 lb/MMBtu heat input, based on a three-hour averaging period. This emission limitation is necessary and sufficient to ensure that the proposed modification (including both Unit 3 and Unit 4) will not result in a significant net emissions increase and, thus, will not be subject to PSD review for lead emissions. The Permittee is required to perform initial and annual performance tests using EPA Method 12 or 29. The permit includes provisions for canceling subsequent performance tests in the event that the initial performance test shows emissions less than 50 percent of the standard.

CAM requirements under 40 CFR part 64 are not applicable to the lead emission standard for Unit 3 and Unit 4 because the potential pre-control device emissions are less than 100 tons per year.

H<sub>2</sub>SO<sub>4</sub>: The total emissions of sulfuric acid mist from Unit 1 through Unit 4 are subject to an emission cap of 211.0 tons/yr, calculated on a rolling 12-month sum basis. This emission limit is not effective until startup of either Unit 3 or 4, whichever occurs first. This emission cap is sufficient to ensure that the project does not result in a significant net emissions increase.

The applicant submitted a monitoring plan that relies upon the use of the monitored SO<sub>2</sub> emission rate as the primary indicator of compliance with the sulfuric acid mist emission cap. The permit includes provisions requiring adherence to this monitoring plan, including an initial verification test to establish the relationship between SO<sub>2</sub> and sulfuric acid mist emission rates. (A strong linear relationship is expected to exist because both SO<sub>2</sub> and SO<sub>3</sub>, from which sulfuric acid mist is formed, are acid gases that will be controlled by absorption in the spray dry absorbers and captured in the fabric filter baghouse.) In addition, initial performance tests using EPA Method 8 are required. Once the ratio of SO<sub>2</sub> to sulfuric acid mist emission rates is established for each of the four boilers, the monitored SO<sub>2</sub> emission rates will be used to calculate the sulfuric acid mist emissions on a 12-month rolling-sum basis.

CAM requirements under 40 CFR Part 64 are not applicable to the sulfuric acid mist emission

cap. This emission cap is exempted under 40 CFR 64.2.b(1)(v) because it meets the requirements under 40 CFR 70.4(b)(12).

It should be noted that compliance with the annual emission cap is required by the permit. One of the measures available to the Permittee for complying with the emission cap is to halt or reduce operation. A.A.C. R18-2-306 provides that needing to halt or reduce operation in order to comply with a permit condition does not constitute a defense in an enforcement action. In addition, A.R.S. §49-462 provides that the Director may file an action for injunctive relief, which may include shutdown of the source, if a violation of a permit term occurs.

**Mercury:** Each of the units is subject to a mercury standard of 0.0000069 lb/MMBtu heat input, based on a 12-month averaging period, representing case-by-case MACT. (See Section VI of Technical Support Document for Permit No. 1001554 for a discussion of the MACT analysis.) Compliance with this requirement for Unit 3, until CEMS are installed, will be tracked by performing annual calculations using mercury removal efficiency from the stack test and monthly coal analyses for mercury content.

Unit 4 is subject to a mercury standard of  $78 \times 10^{-6}$  lb/MWh on an output basis, the NSPS Subpart Da Standard for mercury. A Hg CEMS or a sorbent trap monitoring system may be used to monitor Hg emissions. Unit 3 is not subject to the NSPS Subpart Da Standard for mercury because construction on this unit commenced before January 30, 2004.

CAM requirements under 40 CFR Part 64 are not applicable to the mercury emission standard for Unit 3 and Unit 4 because the potential pre-control device emissions are less than 100 tons per year.

**Fuel Use:** The Permittee is restricted to using coal and No. 2 distillate fuel oil as fuels in each of the steam generating units. Heat input to each unit is limited to 4,200 MMBtu/hr, based on a 30-day rolling average. These restrictions are needed to ensure the enforceability of the representations made in the permit application, because these representations form the basis of all regulatory and technical analyses performed by the Department. The Permittee is required under Acid Rain Program regulations to determine and record the heat input to each unit on an hourly basis.

**Other:** Each of the units is subject to other monitoring requirements that are needed, in conjunction with the monitoring described above, in order to demonstrate compliance with all applicable emission standards using all applicable averaging periods and forms of expression. For instance, the Permittee is required to operate wattmeters to record continuously the electrical output of each unit. This parameter is needed in order to demonstrate compliance with the NO<sub>x</sub> standard under 40 CFR Part 60, Subpart Da, which is expressed in units of pounds per megawatt-hour.

***Auxiliary Boilers:***

**Opacity:** The boiler is subject to the opacity standard of 15% in A.A.C. R18-2-724.J. This unit burns Number 2 fuel oil. The Permittee is required to monitor and record opacity according to the following schedule:

For every 120 hours of continuous operation, a visible emissions survey shall be conducted. If the opacity appears to exceed the standard, an EPA Method 9 reading is required. Keep records of the initial survey and any EPA Method 9 observations performed. Records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observations. If Method 9 reading shows excess of 15%, appropriate corrective action to reduce to below 15% shall be initiated. Keep record of the corrective action performed. Permittee shall log in ink or in electronic

format and maintain a record of the opacity readings and number of hours fuel oil is burned continuously. Report all six minute periods in which the opacity of any plume or effluent exceeds 15% from the auxiliary boiler.

The Permittee is required to record the dates and hours of operation of the boiler.

PM: The unit is also subject to the particulate matter emissions standard in A.A.C. R18-2-724.C.1. The Permittee is required to monitor the heating value and ash content of the fuel. This information is located in the contractual agreement with the liquid fuel vendor.

Although ash content by itself is not a valid measure of particulate matter emissions, monitoring it would help the agency to “ballpark” the particulate matter emissions. No engineering estimation using ash content is prescribed in the permit since it could be interpreted to incorrectly correlate particulate matter emissions to ash content only. The Permittee is required to keep on record a copy of the contractual agreement.

SOx: The boiler is subject to the sulfur dioxide standard in A.A.C. R18-2-724.E. When No.2 diesel fuel oil is burned, the Permittee is required to keep on record the fuel supplier certification which includes the following information:

1. The name of the oil supplier;
2. The sulfur content and the heating value of the fuel from which the shipment came; and
3. The method used to determine the sulfur content of the oil.

The Permittee is required to make engineering calculations for SOx emissions using the information from above according to the following equation for each fuel delivery:

$$\text{SO}_2 \text{ (lb/MMBtu)} = \frac{2.0 \times [(\text{Weight percent of sulfur}/100)] \times [\text{Density (lb/gal)}]}{[(\text{Heating value (Btu/gal)}) \times [1 \text{ MMBtu}/1,000,000 \text{ Btu}]}$$

Although PTE of SO<sub>2</sub> is more than 100 ton/yr, firing of the auxiliary boiler is rare. The boiler is only used to cold start-up the two units. Therefore, no testing is required.

NOx: There is no applicable standard and hence no monitoring is required. Also, the unit does not have the potential to be a major emission unit i.e., it cannot emit more than 100 tpy of NOx. Hence, no testing is required.

### ***Cooling Towers 1 and 2***

Opacity: The cooling towers are subject to the opacity standard of 40% (20% after April 23, 2006) under the general visible emissions rule in A.A.C. R18-2-702.B.

Weekly visual surveys by a certified Method 9 observer is required. If a plume from an emission point appears to exceed the opacity standard, a six minute Method 9 observation will be required. The Permittee is required to make a weekly survey of the visible emissions from the cooling towers. The permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed.

If the Permittee finds that on an instantaneous basis the visible emissions could be in excess of 40% opacity, then he is required to make a six-minute Method 9 observation. If this observation indicates opacity in excess of 40% then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or

process control equipment to bring the opacity below 40%. If observer finds that the visible emissions are less than 40% opacity, then the Permittee is required to record the source of emissions, date, time, and result of the test.

**PM:** The units are also subject to particulate matter emissions standard in A.A.C. R18-2-730A.1. Compliance with this standard is demonstrated through compliance with the following provisions:

Upon startup of Unit 3 or 4, these cooling towers are subject to voluntarily accepted equipment standards and emission limitations designed to ensure facility-wide compliance with limitations on PSD increment consumption. First, the circulating water flow rate is limited to 176,000 gallons per minute in each cooling tower effective upon startup of Unit 3 or Unit 4. Compliance with this limit is demonstrated by maintaining records of design maximum pumping capacity. Second, each cooling tower is required to be equipped with high-efficiency drift eliminators designed for a maximum total liquid drift not to exceed 0.005 percent of circulating water flow rate effective upon startup of Unit 3 or Unit 4. . Compliance with this requirement is demonstrated by maintaining records of the vendor-guaranteed maximum total liquid drift. Finally, each cooling tower is subject to a PM emission standard of 108.4 lbs/hr. The Permittee is required to perform twice monthly measurements for the total dissolved solids content of the circulating water. Compliance with the PM emission standard is required to be demonstrated by performing twice monthly calculation of PM emissions from each cooling tower using design maximum pumping capacity, vendor-guaranteed maximum total liquid drift, and the actual measured total dissolved solids content of the circulating water. Records of all measurements and calculations are required to be maintained.

#### ***Cooling Towers 3 and 4***

**Opacity:** The cooling towers are subject to the opacity standard of 40% (20% after April 23, 2006) under the general visible emissions rule in A.A.C. R18-2-702.B.

Weekly visual surveys by a certified Method 9 observer is required. If a plume from an emission point appears to exceed the opacity standard, a six minute Method 9 observation will be required. The Permittee is required to make a weekly survey of the visible emissions from the cooling towers. The permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed. If the Permittee finds that on an instantaneous basis the visible emissions could be in excess of 40% opacity, then he is required to make a six-minute Method 9 observation. If this observation indicates opacity in excess of 40% then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment to bring the opacity below 40%. If observer finds that the visible emissions are less than 40% opacity, then the Permittee is required to record the source of emissions, date, time, and result of the test.

**PM:** Each of these units is subject to a limitation on maximum circulating water flow rate equal to 200,000 gallons per minute in each cooling tower.

Compliance with this limit is demonstrated by maintaining records of design maximum pumping capacity. Each cooling tower also is required to be equipped with high-efficiency drift eliminators designed for a maximum total liquid drift not to exceed 0.0005 percent of circulating water flow rate. Compliance with this requirement is demonstrated by maintaining records of the vendor-guaranteed maximum total liquid drift. Finally, each cooling tower is subject to a PM emission standard of 12.32 lbs/hr.

The Permittee is required to perform twice monthly measurements of the total dissolved solids content of the circulating water. Compliance with the PM emission standard is required to be demonstrated by performing twice monthly calculation of PM emissions from each cooling tower using design maximum pumping capacity, vendor-guaranteed maximum total liquid drift, and the actual measured total dissolved solids content of the circulating water. Records of all measurements and calculations are required to be maintained.

Each of these units also is subject to particulate matter emission standard in A.A.C. R18.730.A.1.

### ***Coal Preparation Plant***

**Opacity:** The existing coal preparation plant, which excludes the coal storage piles is subject to the 20% opacity standard in 40 CFR 60, Subpart Y. The coal storage piles are subject to an opacity standard of 40%. The permittee is required to make a weekly survey of the visible emissions from the coal preparation plant, coal storage pile, and the baghouses in the coal handling system. The permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed.

If the permittee finds that on an instantaneous basis the visible emissions could be in excess of 20% opacity, then he is required to make a six-minute Method 9 observation. If this observation indicates opacity in excess of 20% then the permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment to bring the opacity below 20%. If the permittee finds that the visible emissions is less than 20% opacity, then the permittee is required to record the source of emission, date, time, and result of the test.

Within 180 days after Startup of the modified coal preparation plant, a 10 percent opacity limit will take effect for the coal preparation plant fabric filter baghouses installed as part of the Unit 3 and 4 modernization. The existing monitoring, testing, recordkeeping, and reporting provisions will continue, but the threshold for conducting a Method 9 opacity observation at a fabric filter baghouse is lowered to 10 percent from 20%.

Within 180 days after the issuance of the permit, the Permittee shall conduct a six minute Method 9 observation to determine compliance with the 20% opacity standard and 40% opacity standard.

Within 180 days after startup of the modified coal preparation plant, a six minute Method 9 observation shall be conducted for determining compliance with the 40 % opacity limit. Within 180 days after startup of the modified coal preparation plant, a three hour Method 9 test shall be conducted for determining compliance with the 20% and 10% opacity limits.

**PM:** Within 180 days after startup of the modified coal preparation plant, the coal preparation plant fabric filter baghouses installed as part of the Unit 3 and 4 modernization must meet a minimum design specification. This specification requires a maximum outlet particulate matter concentration of 0.01 grains per dry standard cubic foot of exhaust. The Permittee is required to hold these specifications on file. Records of fabric filter baghouse maintenance are required. Within 180 days after startup of the modified coal preparation plant, a performance test shall be conducted for 1 representative baghouse installed as part of the Unit 3 and 4 modernization. If the Permittee documents an opacity exceedance during the weekly visible emission survey and isn't able to make repairs or identify adjustments to address the exceedance within 72 hours, the Permittee must perform a test for that baghouse installed as part of the Unit 3 and 4 modernization within 180 days.

***Lime Handling Units 1 and 2***

Opacity: The lime handling plant is subject to the 40% opacity (20% after April 23, 2006) standard in A.A.C. R18-2-702.B. The Permittee is required to make a weekly survey of the visible emissions from the entire lime plant including all the exposed transfer points, the storage pile, and the baghouse exhaust. The permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed.

If the Permittee finds that on an instantaneous basis the visible emissions could be in excess of 40% opacity, then he is required to make a six-minute Method 9 observation. If this observation indicates opacity in excess of 40% then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment to bring the opacity below 40%. If observer finds that the visible emissions are less than 40% opacity, then the Permittee is required to record the source of emissions, date, time, and result of the test.

PM: The lime handling plant is subject to the particulate matter standard in A.A.C. R18-2-730.A.1.a and b. The Permittee is required to maintain and operate the baghouses in accordance with the Best Management Practices. The Permittee is also required to hold these specifications on file. All emissions related maintenance is required to be recorded.

***Lime Handling Units 3 and 4***

Opacity: The proposed new lime handling operations are subject to the 40 percent opacity (20% after April 23, 2006) standard in A.A.C.R18-2-702.B. In addition, the lime handling system fabric filter baghouses are subject to a 10 percent opacity standard representing BACT. The permit conditions require that the Permittee conduct a weekly survey of the visible emissions from the lime handling operations; create a record of the date on which the survey was taken, the name of the observer, and the results of the survey; and conduct Method 9 opacity observations if opacity approaching the applicable standard is observed.

PM: The lime handling operations are subject to the particulate matter standard in A.A.C.R18-2-730.A.1.a and b. Compliance with this standard will be demonstrated through the visible emission surveys described above. In addition, the fabric filter baghouses are required to be designed for maximum outlet particulate matter concentration of 0.01 grains per dry standard cubic foot of exhaust. The Permittee is required to hold these specifications on file. Records of fabric filter baghouse maintenance is required.

***Fly Ash Handling Units 1 and 2***

Opacity: The fly ash handling operation is subject to the 40% opacity (20% after April 23, 2006) standard in A.A.C. R18-2-702.B. The Permittee is required to make a weekly survey of the visible emissions from the entire lime plant including all the exposed transfer points, the storage pile, and the baghouse exhaust. The Permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed.

If the Permittee finds that on an instantaneous basis the visible emissions could be in excess of 40% opacity, then he is requd to make a six-minute Method 9 observation. If this observation indicates opacity in excess of 40% then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment to bring the opacity below 40%. If observer finds that the visible emissions

are less than 40% opacity, then the Permittee is required to record the source of emissions, date, time, and result of the test.

PM: The fly ash handling operation is subject to the particulate matter standard in A.A.C. R18-2-730.A.1. The emissions from the vent of the fly ash storage silos are ducted to the flue gas system before entering the baghouses which are used to remove PM for Unit 1 and 2.

The emissions from dry fly ash unloading must be ducted through a Dust Filter Module.

The Permittee shall maintain records of emissions related maintenance performed on the Dust Filter module.

#### **Fly Ash Handling Units 3 and 4**

Opacity: The proposed new fly ash handling operation is subject to the 40 percent opacity (20% after April 23, 2006) standard in A.A.C.R18-2-702.B. In addition, the fly ash handling system fabric filter baghouses are subject to a 10 percent opacity standard representing BACT. The proposed permit requires that the Permittee conduct a weekly survey of the visible emissions from the fly ash handling operations; create a record of the date on which the survey was taken, the name of the observer, and the results of the survey; and conduct Method 9 opacity observations if opacity approaching the applicable standard is observed.

PM: The fly ash handling operation is subject to the particulate matter standard in A.A.C.R180730.A.1.a and b. Compliance with this standard will be demonstrated through the visible emissions surveys described above. In addition, the fabric filter baghouses are required to be designed for maximum outlet particulate matter concentration of 0.01 grains per dry standard cubic foot of exhaust. The Permittee is required to hold these specifications on file. Records of fabric filter baghouse maintenance are required.

#### ***Non-point sources***

The standards in Article 6 are applicable requirements for non-point sources. The following sources will be monitored:

1. Driveways, parking areas, and vacant lots;
2. Unused open areas;
3. Open areas (Used, altered, repaired, etc.);
4. Construction of roadways;
5. Material transportation;
6. Material handling;
7. Storage piles; and
8. Stacking and reclaiming machinery at storage piles.

All of these areas must comply with the opacity limitation of 40%. The Permittee is required to minimize emissions of PM from these sources by the use of control measures such as wetting agents, watering, covering, paving, barring access etc. The Permittee is required to keep track of the kind of control measure used. Also, monitoring requirements for open burning are satisfied by keeping all open burn permits on file.

The Permittee is required to make a bi-weekly survey of the visible emissions from all non-point sources. The Permittee is required to create a record of the date on which the survey was taken, the name of the observer, and the results of the survey. If the visible emissions do not appear to exceed the standard, the Permittee would note in the record that the visible emissions were of low opacity, and it did not require a Method 9 to be performed.

If the Permittee finds that on an instantaneous basis the visible emissions are in excess of the opacity standard, then he is required to make a six-minute Method 9 observation. If this observation indicates opacity in excess of the standard, then the Permittee is required to report it as excess emissions. In addition, the Permittee is required to adjust the process equipment or process control equipment, when feasible, to bring the opacity below the

standard. If the Permittee finds that the visible emissions is less than the opacity standard, then the Permittee is required to record the source of emission, date, time, and result of the test.

***Other Periodic Activities***

**Abrasive Sand Blasting**

TEP indicated in the permit application that there might be a few occasions on which abrasive sand blasting activities are conducted on-site. A.A.C. R18-2-726 and A.A.C.R18-2-702 (B) are applicable requirements, and as such, have to be included in the permit. Minimal monitoring requirements were required in the permit.

Spray Painting  
TEP indicated in the permit application that there might be a few occasions on which spray painting activities are conducted on-site. A.A.C. R18-2-727 and A.A.C.R18-2-702(B) are applicable requirements, and as such, have to be included in the permit. A.A.C. R18-2-727(A) and A.A.C.R18-2-727(B) are included in the approved State Implementation Plan (SIP). R18-2-727(C) and R18-2-727(D) are also a part of the approved SIP. They are present in the definitions section of the SIP as R9-3-101.117. EPA approved SIP provision R9-3-527.C is not present in the amended rule. However, R9-3-527.C is an applicable requirement, and is federally enforceable until the current State SIP is approved by the EPA. Minimal monitoring requirements were required in the permit.

**Mobile Sources**

The Permittee is required to keep a record of all emissions related maintenance activities performed on the Permittee's mobile sources stationed at the facility. The emissions related maintenance are to be performed according to the best management practice.

**Asbestos Demolition/Renovation**

The Permittee is required to keep a record of all relevant paperwork on file. The relevant paperwork shall include, but not be limited to, the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

**Nonvehicle Air Conditioner Maintenance and/or Services**

The Permittee is required to keep a record of all relevant paperwork to the applicable requirements of 40 CFR 82 - Subpart F on file.

**Internal Combustion Engines**

**Opacity**

The generators or internal combustion engines are subject to a 40% opacity limitation. A certified EPA Reference Method 9 observer is required to conduct after each 120 hours of continuous operation a survey of visible emissions emanating from the stacks of the generators and any other internal combustion engines. If the opacity of the emissions observed appears to exceed the standard, the observer will conduct a certified EPA Reference Method 9 observation. Then the source is required to keep records of the initial survey and any EPA Reference Method 9 observations performed. These records will include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the observation shows a Method 9 opacity reading in excess of 40%, the source will initiate appropriate corrective action to reduce the opacity below 40%. The source is also required to keep a record of the corrective action performed.

**Particulate Matter:**

The source is required to monitor the lower heating value of the fuel being combusted in the generators and any other internal combustion engines. Compliance with this requirement may be demonstrated by maintaining copy of the fuel supplier certification specifying the lower heating value.

Sulfur Dioxide: The source is required to not burn high sulfur fuel, and is limited to emissions of sulfur dioxide to 1.0 pound per million Btu heat input. The source is required to maintain records of daily sulfur content and lower heating value of the fuel fired in the generators, along with a copy of the fuel supplier certification specifying the sulfur content and lower heating value.

## VII. CAM for Units 1, 2, 3, and 4

The requirements of the CAM rule, codified at 40 CFR Part 64 implement §§114(a)(1) and (a)(3) of the Clean Air Act, as amended, and apply wherever the following three criteria are met:

- The emission unit is subject to an emission limitation or standard<sup>1</sup> for a particular pollutant;
- The emission unit uses a control device to achieve compliance with the emission limitation or standard; and
- The emission unit has potential, pre-control device emissions greater than the applicable major source threshold.

The CAM rule allows for two general approaches: continuous monitoring to determine compliance directly, such as using a continuous emission monitoring system (CEMS), or monitoring of control device operation within specified ranges of performance to provide reasonable assurance of compliance.

### *Unit 1 and 2*

#### A. Particulate Matter

##### 1. Background

###### a. Emission Unit

Facility: Tucson Electric Power Company Springerville  
Generating Station, Springerville, AZ

Description: Unit 1 and 2 Coal-Fired Utility Boilers

Unit Identification: Unit 1 Boiler, Source ID SGS-1-1-004/ORIS Code 08223  
Unit 2 Boiler, Source ID SGS-1-1-004/ORIS Code 08223  
Springerville, Arizona

###### b. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Regulation: 40 CFR 60.42  
Condition No. II.A.2. of Significant Permit Revision  
1001554 to Permit Number 1000105

Regulated Pollutant: Particulate Matter

Emission Limit: Unit 1 – 0.034 lb/MMBtu  
Unit 2 – 0.034 lb/MMBtu

###### c. Monitoring Requirements: Continuous Opacity Monitoring System (COMS)

###### (1) Control Technology

Unit 1-Particulate Matter Removal System: Fabric Filter (Baghouse)  
Unit 2 – Particulate Matter Removal System: Fabric Filter (Baghouse)

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<sup>1</sup> There are several emission standards that are specified in the CAM rule as being exempt from CAM requirements.

2. Monitoring Approach

a. Indicator (I)

Visible emissions (Opacity) will be used as an indicator

b. Measurement Approach (MA)

MA-Visible Emissions (Opacity)

Visible emission (Opacity) will be measured continuously by each COMs installed on the outlet of each of the unit's fabric filters.

c. Indicator Range (IR)

Visible Emissions greater than 12 percent Opacity based on a 3 hour rolling average. Each three-hour block is a discrete one-eighth of a calendar day.

d. Corrective Action Threshold (CAT)

If the 3-hour rolling average opacity exceeds 12 percent, Springerville Generating Station personnel will initiate an investigation of the control equipment within 24 hours for possible corrective action. If corrective action is required SGS will proceed to implement such corrective action as soon as practicable in order to minimize possible exceedances of the PM<sub>10</sub> standards established in the permit.

SGS will also perform an annual performance test on each generating unit to determine compliance with the PM emission limit per EPA Reference Method 5.

e. Performance Criteria

Data Representativeness:	Visible emissions (Opacity) are measured at the emission point (between the fabric filter outlet and the stack discharge).
QA/QC Practices and Criteria:	TEP is required by the permit to meet the QA/QC requirements of 40 CFR 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"
Monitoring Frequency and Data:	Continuous opacity monitoring with the data recorded as 6-minute averages.
Collection Procedure:	Continuous
Averaging Period:	3-hour rolling average of visible emissions (Opacity)

3. Justification

a. Background

The Springerville Generating Station produces electricity. The pollutant-specific emission unit is each of the coal-fired utility boilers. The particulate matter is

controlled by baghouses prior to the flue gas being discharged to the stack. The design collection efficiency of each baghouse is 99.9% or greater.

b. Rationale for Selection of Performance Indicator(s);

The presence of visible emissions, recorded as opacity with the Continuous Opacity Monitoring System (COMS) was selected as the performance indicator because it is indicative of operation of the fabric filter in a manner necessary to comply with the particulate matter emission standard. When the fabric filter is operating properly, visible emissions from the exhaust will be minimal. Visible emissions greater than 12 percent for a 3-hour rolling average, as recorded by the COMS, indicates reduced performance of the particulate matter control device; however, the presence of visible emissions (opacity) is used as the performance indicator.

c. Rationale for Selection of Indicator Level(s);

The selected indicator range is visible emissions greater than 12 percent opacity based on a 3-hour rolling average. Although a 3-hour rolling average above 12 percent does not in itself constitute a violation of the particulate matter standard, it does indicate that corrective action should be initiated so that any possible exceedance of the particulate matter standard can be prevented.

Unit 1 and 2 PM Limits:	
	Indicator: Visible Emissions Opacity
Measurement Approach	Visible Emissions (Opacity) will be measured continuously with a continuous Opacity Monitoring System (COMS) installed on each stack.
Indicator Range	Visible Emissions greater than 12 percent Opacity based on a 3-hour rolling average (except during unit startup, shutdown, and malfunction).
Performance Criteria - Data Representativeness	Visible emissions (Opacity is measured on stack)
Performance Criteria - Operation	n/a
Performance Criteria - QA/QC Practices	TEP is required by the permit to meet the QA/QC requirements of 40 CFR 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"
Performance Criteria - Monitoring Frequency	Continuous opacity monitoring with data recorded as 6-minute averages.
Performance Criteria - Data Collection Procedure	Continuous
Performance Criteria - Averaging Period	3-hour rolling average of visible emissions (Opacity)

**B. Sulfur Dioxide**

The monitoring system is required to meet the requirements of 40 CFR 60.13 and 40 CFR 75, Appendix A and B.

1. Background

a. Emission Unit

Facility: Tucson Electric Power Company Springerville  
Generating Station, Springerville, AZ

Description: Unit 1 and 2 Coal-Fired Utility Boilers

Unit Identification: Unit 1 Boiler, Source ID SGS-1-1-004/ORIS Code 08223  
Unit 2 Boiler, Source ID SGS-1-1-004/ORIS Code 08223  
Springerville, Arizona

b. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Regulation: 40 CFR 60.43  
Condition No. II.A.3. of Significant Permit Revision  
1001554 to Permit Number 1000105

Regulated Pollutant: Sulfur Dioxide

Emission Limit: Unit 1: 0.690 lb/MMBtu, rolling 3-hour average  
Unit 2: 0.690 lb/MMBtu, rolling 3-hour average

c. Monitoring Requirements: Continuous SO<sub>2</sub> Emissions Monitoring System (CEMS)

(1) Control Technology

Unit 1 - Spray Dryer Flue Gas Desulfurization System (Scrubber Dry Absorber (SDA))  
Unit 2 - Spray Dryer Flue Gas Desulfurization System (Scrubber Dry Absorber (SDA))

2. Monitoring Approach

a. Indicator (I)

Continuous SO<sub>2</sub> Emission Monitoring System (lbs/mmBtu) – arithmetic average of three contiguous 1 hour SO<sub>2</sub> averages (three hour rolling average) will be used as an indicator.

b. Measurement Approach (MA)

The SO<sub>2</sub> emission rate will be measured at the stack and recorded by the continuous emission monitoring system (CEMS).

c. Indicator Range (IR)

The indicator range will be a three hour SO<sub>2</sub> emission rate greater than 0.600 lbs/mmBtu, except for periods of startup, shutdown, and malfunction.

d. Corrective Action Threshold (CAT)

If the SO<sub>2</sub> three hour emission rate is a reading greater than 0.600 lbs/mmBtu, except for periods of startup, shutdown, and malfunction, Springerville Generating Station personnel will initiate an investigation immediately to determine if corrective action is necessary. If corrective action is required SGS will proceed to implement such corrective action as soon as practicable in order to minimize possible exceedances of the SO<sub>2</sub> standard established in the permit.

Triggering of the corrective action threshold does not in itself constitute a violation of the 3 hour SO<sub>2</sub> standard; it does indicate that an investigation and if necessary corrective action should be initiated so that any possible, exceedance of the SO<sub>2</sub> standard is prevented.

e. Performance Criteria

Data Representativeness:	Three one hour SO <sub>2</sub> emission rates are measured on the stack and data collected by the continuous emission monitoring system.
QA/QC Practices and Criteria:	Each of the SO <sub>2</sub> CEMs will meet the 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure".
Monitoring Frequency and Data:	Readings are collected by the continuous SO <sub>2</sub> emissions monitoring system with data recorded as a one hour average and arithmetic average of three contiguous one-hour periods (three hour rolling average)
Collection Procedure:	Continuous
Averaging Period:	An arithmetic average of three one hour SO <sub>2</sub> emission rates in pounds per million Btu.

3. Justification

a. Background

The Springerville Generating Station produces electricity. The pollutant-specific emission unit is each of the coal-fired utility boilers (Units 1 and 2). The sulfur dioxide is controlled by a spray dryer absorption (SDA) system.

b. Rationale for Selection of Performance Indicator(s);

An arithmetic average of three contiguous one hour SO<sub>2</sub> emission rates, recorded by the continuous emission monitoring system was selected as a performance indicator because it is indicative of lime concentration of the lime/recycle slurry being sprayed by the atomizers.

c. Rationale for Selection of Indicator Level(s);

A three hour SO<sub>2</sub> emission rate of greater than 0.600 lbs/mmBtu as recorded by the continuous emission monitoring system was selected because it could be an indication that the lime concentration in the lime/recycle slurry being sprayed by the atomizer is too low, this does not in itself constitute a violation of the 3 hour SO<sub>2</sub> standard, it does indicate that an investigation of the equipment should begin immediately to determine if corrective action is necessary.

Unit 1 and 2 SO <sub>2</sub> Limits: Lime Spray Dryer Flue Gas Desulfurization System :	
	Indicator: SO <sub>2</sub> emissions.
Measurement Approach	SO <sub>2</sub> emissions will be monitored with a Continuous SO <sub>2</sub> Emission Monitoring System (CEMS) for each stack
Indicator Range	The indicator range will be a three hour rolling SO <sub>2</sub> emission greater than 0.600 pounds per million Btu (except for periods of startup, shutdown, and malfunction).
Performance Criteria - Data Representativeness	The SO <sub>2</sub> emission is measured on each stack
Performance Criteria - Operation	n/a
Performance Criteria QA/QC Practices	each of the SO <sub>2</sub> CEMS will meet the 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure"
Performance Criteria - Monitoring Frequency	readings are collected by the continuous SO <sub>2</sub> emissions monitoring system with data recorded as a one hour average and an arithmetic average of three contiguous one hour averages
Performance Criteria - Data Collection Procedure	Continuous
Performance Criteria - Averaging Period	a three hour rolling SO <sub>2</sub> pounds per million Btu.

**Unit 3 and 4**

**A. PM and PM<sub>10</sub>**

**PM:** For the purposes of establishing and demonstrating compliance with the boiler emission limits, PM is defined to include only filterable particulate matter as measured by EPA Reference Method 5. Each of the units is subject to a filterable PM standard of 0.015 lb/MMBtu heat input, based on a three-hour averaging period, representing BACT. Other, less stringent PM standards (such as that under 40 CFR Part 60, Subpart Da, §60.42a(a)) have been streamlined out of the permit.

**PM<sub>10</sub>** For the purposes of establishing and demonstrating compliance with the boiler emission limits, PM<sub>10</sub> is defined to include both fine filterable particulate matter and condensable particulate matter as measured by EPA Reference Methods 201A and 202, respectively. See Section VI.A.1 in the Technical Support Document to Significant Permit Revision No. 1001554 for further discussion of the differences between PM and PM<sub>10</sub>. Each of the units is subject to a PM<sub>10</sub> standard of 0.055 lb/MMBtu heat input, based on a three-hour averaging period, representing BACT.

**1. Background**

**a. Emission Unit**

Facility: Tucson Electric Power Company Springerville  
Generating Station, Springerville, AZ

Description: Unit 3 and 4 Coal-Fired Utility Boilers

Identification: Unit 3 Boiler  
Unit 4 Boiler

b. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Applicable Regulations: 40 CFR 60.42aa(1) and A.A.C.R18-2-406.A.4

Regulated Pollutants: Filterable Particulate Matter and PM<sub>10</sub>

Emission Limit: Unit 3 – 0.015 lb/MMBtu 3 hour averaging period (PM)  
Unit 4 – 0.015 lb/MMBtu 3 hour averaging period (PM)  
Unit 3 – 0.055 lb/MMBtu 3 hour averaging period (PM<sub>10</sub>  
including filterable PM10 and condensable PM10)  
Unit 4 - 0.055 lb/MMBtu 3 hour averaging period (PM<sub>10</sub>  
including filterable PM10 and condensable PM10)

Monitoring Requirements: Bag Leak detector on baghouse exhaust (note: additional detectors may be added within the clean air plenum of each baghouse to reduce the effort to determine which compartment contains a leaking bag.)

c. Control Technology

Unit 3-Particulate Matter Removal System: Fabric Filter (Baghouse) – Pulse jet baghouse operated under negative pressure.  
Unit 4 – Particulate Matter Removal System: Fabric Filter (Baghouse). Pulse jet baghouse operated under negative pressure.

**2. Monitoring Approach**

a. Indicator

Bag leak detector monitor signal (triboelectric signal)

b. Measurement Approach (MA)

Bag leak detectors will be installed at the baghouse exhaust to detect an increase of particulate due to a leaking bag. An alarm will sound when the signal remains over a preset limit for 15 seconds to indicate a broken filter bag.

c. Indicator Range

The fabric filter bag leak detection system indicator range will be determined during the initial adjustment of the system by adjusting the sensitivity (range) of the averaging period of the device and by establishing the alarm set points and the alarm delay time. The alarm set point will be established at a point above baseline conditions and cleaning peaks but below the maximum range of the bag leak detector.

d. Corrective Action Threshold (CAT)

A procedure for responding to bag leak detector alarms will be written prior to commercial

operation of Units 3 and 4. If the bag leak detector alarm set point is exceeded, Springerville Generating Station personnel will initiate an investigation of the control equipment, carry out any necessary corrective action and document actions taken.

e. Performance Criteria

Data Representativeness: Fabric filter bag leak detectors will be monitored electronically in accordance with system installation and operation procedures. The bag leak detector alarm set point will be established at a level that identifies abnormal bag performance and allows corrective actions to be taken before performance deteriorates to a level that could contribute to an exceedance of the particulate emissions standard.

QA/QC Practices and Criteria: The bag leak detector will be calibrated, maintained and operated according to manufacturer's recommendations.

Bag Leak Monitoring Frequency: Continuous

Data Collection Procedure: Data will be monitored and stored electronically in accordance with vendor specifications.

Averaging Period: Investigation and possible corrective action are initiated within 24 hours after the alarm sounds

3. Justification

a. Background

Springerville Generating Station produces electricity. The pollutant-specific emission unit is each of the two new coal-fired utility boilers. The emission of particulate matter will be controlled by fabric filters prior to the discharge stacks. The design collection efficiency of each fabric filter is 99.9% or greater.

b. Rationale for Section of Performance Indicator

The bag leak detector technology selected measures triboelectricity, an electric charge transfer that results when dust particles collide with the sensor probe. When bag leaks occur, the signal level will increase. Alarm levels based on increases in normal cleaning peak heights or the normal baseline signal can be set to detect filter bag leaks.

Bag leak detectors were selected as the performance indicator because they provide an early indication that bag performance is deteriorating and an opportunity to take corrective action before an exceedance of the standard occurs.

c. Rationale for Selection of Indicator Level

The bag leak detectors will have an indicator range represented by triboelectric signal strength. The bag leak detector system indicator range alarm set point will be determined during the initial adjustment of the system. The rationale for determining an appropriate alarm set point will be to 1) identify a point that is well above normal operating baseline conditions so that false positive alarms are minimized and 2) identify a point that is below the upper level of the detector's indicator range.

<b>Unit 3 and Unit 4 PM Limits: Fabric Filter Baghouses</b>	
	Indicator: Bag leak detection system signal
Measurement Approach	Relative PM concentration is indicated by a triboelectric signal
Indicator Range	Signal above the alarm set point, to be determined during initial system verification testing
Performance Criteria - Data Representativeness	Sensor must provide output of relative particulate matter loading
Performance Criteria - Operation	n/a
Performance Criteria - QA/QC Practices	Inspections and maintenance activities must be performed on the bag leak detection system
Performance Criteria - Monitoring Frequency	Relative PM concentration is recorded continuously
Performance Criteria - Data Collection Procedure	Relative PM concentration is recorded continuously
Performance Criteria - Averaging Period	Investigation and possible corrective action are initiated within 24 hours after the alarm sounds

**B. Hydrogen Fluoride**

Each of the units is subject to a hydrogen fluoride standard of 0.00044 lb/MMBtu heat input, based on a three-hour rolling average. This standard represents BACT for fluorides and case-by-case MACT for hydrogen fluoride.

CAM requirements under 40 CFR Part 64 are applicable to the HF emission standard for Unit 3 and Unit 4. The applicant submitted a CAM plan that relies upon the use of the monitored SO<sub>2</sub> emission rate as the primary indicator of compliance with the HF emission standard. The permit includes provisions requiring adherence to this CAM plan, including an initial verification test to establish the relationship between SO<sub>2</sub> and HF emission rates. (A strong linear relationship is expected to exist because both SO<sub>2</sub> and HF are acid gases that will be controlled by absorption in the spray dry absorbers and capture in the fabric filter baghouse.) In addition, initial performance tests using EPA Method 26A are required. Once the ratio of SO<sub>2</sub> to HF emission rates is established for each of the four boilers, the monitored SO<sub>2</sub> emission rates will be used to calculate the HF emissions on a three-hour rolling average basis.

TEP will control HF emissions from each boiler with spray dryers and fabric filters, which is the control technology also used for SO<sub>2</sub>. The provisions of the EPA Acid Rain Program regulations (i.e., 40 CFR Parts 72 through 78) apply to each affected unit (i.e., each boiler). This requires the installation operation, and calibration of an SO<sub>2</sub> continuous emissions monitoring (CEMS).

TEP is required to conduct initial stack tests to verify that when SO<sub>2</sub> is at its permitted emission limit of 0.60 lbs/mmBtu, HF is at or below its permitted emission limit. Once it can be verified that whenever SO<sub>2</sub> is in compliance, HF is also in compliance, SO<sub>2</sub> will be used as a surrogate for HF.

Unit 3 and Unit 4 Hydrogen Fluoride Limits: Dry Scrubbers and Fabric Filter Baghouses	
	Indicator: Sulfur Dioxide Emissions
Measurement Approach	Sulfur dioxide (SO <sub>2</sub> ) emissions as measured by the SO <sub>2</sub> CEMS are used as a surrogate for hydrogen fluoride (HF) emissions
Indicator Range	SO <sub>2</sub> emissions as measured by the SO <sub>2</sub> CEMS above the HF excursion level, to be determined during initial system verification testing
Performance Criteria - Data Representativeness	SO <sub>2</sub> CEMS must meet performance specifications and quality assurance requirements as set forth at 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, Appendices A and B. Relationship of SO <sub>2</sub> and HF emissions is established during the initial verification test.
Performance Criteria - Operation	SO <sub>2</sub> CEMS must meet performance specifications and quality assurance requirements as set forth at 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, Appendices A and B.
Performance Criteria - QA/QC Practices	SO <sub>2</sub> CEMS must meet performance specifications and quality assurance requirements as set forth at 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, Appendices A and B.
Performance Criteria - Monitoring Frequency	SO <sub>2</sub> CEMS operation is continuous.
Performance Criteria - Data Collection Procedure	SO <sub>2</sub> CEMS operation is continuous. SO <sub>2</sub> emission rate calculation is performed each hour, based on a rolling 3-hour average.
Performance Criteria - Averaging Period	SO <sub>2</sub> emission rate calculation is performed each hour, based on a rolling 3-hour average, consistent with the averaging period of the HF emission standard.

**VIII. IMPACTS TO AMBIENT AIR QUALITY**

The Permittee is required to maintain and operate ambient monitoring equipment to verify compliance with the Ambient Air Quality Standards and maximum pollutant concentration increases.

**IX. INSIGNIFICANT ACTIVITIES**

The following table includes a list of the activities proposed by TEP, SGS to be insignificant. In addition, this table includes an evaluation of whether the activity can be deemed as insignificant pursuant to A.A.C. R18-2-101.57. **This table is not all inclusive meaning that it does not include all insignificant activities, there are activities not on this list that could be insignificant activities. This list is a determination of the most likely insignificant activities for SGS.**

List of Insignificant Activities

ID. No.	Activity	Determination	Comment
1	Unit 1 and Unit 2 condensate system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
2	Unit 1 and Unit 2 condensate pump vent pump A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
3	Unit 1 and Unit 2 condensate pump vent pump B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
4	Unit 1 and Unit 2 condensate pump vent pump C	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
5	Unit 1 and Unit 2 gland steam condenser vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
6	Unit 1 and Unit 2 air ejector condenser vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
7	Unit 1 and Unit 2 feedwater system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
8	Unit 1 and Unit 2 feedwater heater 7 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
9	Unit 1 and Unit 2 feedwater heater 6 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
10	Unit 1 and Unit 2 feedwater heater 5 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
11	Unit 1 and Unit 2 deaerating heater vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
12	Unit 1 and Unit 2 boiler feed pump A vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
13	Unit 1 and Unit 2 boiler feed pump A seal leakoff vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
14	Unit 1 and Unit 2 boiler feed pump B vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
15	Unit 1 and Unit 2 boiler feed pump B seal leakoff vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
16	Unit 1 and Unit 2 feedwater heater 3 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
17	Unit 1 and Unit 2 feedwater heater 2 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
18	Unit 1 and Unit 2 feedwater heater 1 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
19	Unit 1 and Unit 2 boiler steam drum vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
20	Unit 1 and Unit 2 blowdown tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
21	Unit 1 and Unit 2 boiler emergency relief for steam	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
22	Unit 1 and Unit 2 main transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
23	Unit 1 and Unit 2 main auxiliary transformer (2)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
24	Unit 1 and Unit 2 excitation transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
25	Unit 1 and Unit 2 generator grounding transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
26	Unit 1 and Unit 2 hydrogen system vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
27	Unit 1 and Unit 2 stator cooling water vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
28	Unit 1 and Unit 2 circulating water system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
29	Unit 1 and Unit 2 condenser vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
30	Unit 1 and Unit 2 condenser air removal vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
31	Unit 1 and Unit 2 auxiliary steam system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
32	Unit 1 and Unit 2 SDA lime system water vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
33	Unit 1 and Unit 2 condensate tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
34	Unit 1 and Unit 2 cooling water storage tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
35	Unit 1 cooling water system vent, drain and relief	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
36	Unit 1 water/steam sampling system vent, drain and relief	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
37	Unit polish system vents, drain and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
38	Unit 1 and Unit 2 polisher acid day tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
39	Unit 1 and Unit 2 polisher caustic day tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
40	Unit 1 and Unit 2 polisher vessel A vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
41	Unit 1 and Unit 2 polisher vessel B vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
42	Unit 1 and Unit 2 polisher vessel C vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
43	Unit 1 and Unit 2 chemical feed system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
44	Unit 1 and Unit 2 ammonia tank vent	Yes	Total annual ammonia usage for whole facility is 1400 lbs, it is less than 10,000 lbs. There is no applicable requirement.
45	Unit 1 and Unit 2 hydrazine tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
46	Unit 1 and Unit 2 phosphate dissolving hopper	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
47	Unit 1 and Unit 2 phosphate day tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
48	Unit 1 and Unit 2 continuous emissions monitors	Yes	CEM is a monitoring system.
49	Bottom ash dewatering bin A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
50	Bottom ash dewatering bin B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
51	Bottom ash settling tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
52	Bottom ash surge tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
53	Lube oil system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
54	Clean lube oil storage tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
55	emergency diesel generator	No	Subject to A.A.C. R18-2-719
56	Auxiliary boiler system vents, drains and reliefs for steam	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
57	Auxiliary boiler deaerator vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
58	Auxiliary boiler condensate system emergency relief vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
59	Auxiliary boiler feedwater system emergency relief vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
60	Auxiliary boiler steam drum emergency relief vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
61	Auxiliary boiler chemical feed water system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
62	Auxiliary boiler chemical feed water system ammonia tank vent	Yes	Total annual ammonia usage for whole facility is 1400 lbs, it is less than 10,000 lbs. There is no applicable rule.
63	Auxiliary boiler chemical feed water system hydrazine tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
64	Auxiliary boiler chemical feed water system phosphate dissolving hopper	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
65	Auxiliary boiler chemical feed water system phosphate day tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
66	Raw water system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
67	Service water system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
68	Water treatment system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
69	Water treatment lime suction tanks	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
70	Water treatment influent tank 1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
71	Water treatment influent tank 2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
72	Water treatment reactivator 1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
73	Water treatment reactivator 2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
74	Reactivator 1 effluent tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
75	Reactivator 2 effluent tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
76	Reactivator sludge thickener tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
77	Reactivator sludge thickener supernatant tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
78	Soda ash solution tanks	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
79	Coagulant aid drum	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
80	Coagulant aid solution tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
81	Backwash storage tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
82	ROSEP acid day tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
83	Filtered water cartridge filter	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
84	Vacuum Degasifier Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
85	Reverse Osmosis Treated Water Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
86	ROSEP Chemical Cleaning Batch Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
87	Demineralizer Cation Vessel (2) Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
88	Demineralizer Anion Vessel (2) Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
89	Demineralizer Mixed Bed Vessel (2) Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
90	Demineralizer Acid Day Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
91	Demineralizer Caustic Day Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
92	Demineralizer Hot Water Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
93	Common Condensate Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
94	Potable Water System Hypochlorite Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
95	Potable Water Head Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
96	Potable Water System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
97	Polishing Demineralizer Acid Storage Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
98	Polishing Demineralizer Caustic Storage Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
99	Bulk Ammonia Storage Tank Water Treatment Acid Storage Tank A Vent	Yes	Total annual ammonia usage for whole facility is 1400 lbs, it is less than 10,000 lbs. There is no applicable rule.
100	Water Treatment Acid Storage Tank B Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
101	Water Treatment Acid Storage Tank C Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
102	Water Treatment Caustic Storage Tank A Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
103	Water Treatment Caustic Storage Tank B Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
104	Cooling Tower Acid Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
105	Cooling Tower Dispersant Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
106	Power Building HVAC System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
107	Service Air System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
108	Instrument Air System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
109	Yard Loop Header System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
110	Diesel Fire Pump for Emergency	NO	Subject to A.A.C.R18-2-719
111	Nitrogen System (Unit 1 and 2) Vents, Drains and Reliefs	Yes	It is used to prevent oxygen into the boiler. Insignificant pursuant to A.A.C. R18-2-101.57.j
112	Hydrogen System (Unit 1 and 2) Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
113	Polisher Resin Separation & Cation Regeneration Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
114	Polisher Anion Regeneration Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
115	Polisher Mixing and Storage Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
116	Neutralizing System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
117	Neutralizing Tank A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
118	Neutralizing Tank B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
119	Oily Waste System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
120	Oil Waste Surge Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
121	Oil Separator Discharge Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
122	Sewer System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
123	Building Latrine Vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
124	Sewage Treatment Facility	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
125	Raw Water Storage Reservoir A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
126	Raw Water Storage Reservoir B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
127	Makeup Water Reservoir A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
128	Makeup Water Reservoir B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
129	Recoverable Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
130	Recoverable Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
131	Cooling Tower Blowdown Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
132	Cooling Tower Blowdown Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
133	Process Waste Water Pond	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
134	Sludge Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
135	Sludge Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
136	Sludge Pond C	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
137	Sludge Pond D	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
138	Storm Water Run Off Pond #1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
139	Storm Water Run Off Pond #2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
140	Storm Water Run Off Pond #3	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
141	Coal Pile Run Off Pond	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
142	Ash Burial Dam	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
143	Sewage Treatment Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
144	Sewage Treatment Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
145	Evaporation Pond #1 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
146	Evaporation Pond #2 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
147	Evaporation Pond #3 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. A.A.C. R18-2-101.57.j
148	Evaporation Pond #4 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
149	Evaporation Pond #5 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
150	Evaporation Pond #6 (When dry, it is subject to A.A.C. R18-2-604)	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
151	Water Treatment Laboratory Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.I
152	Coal Laboratory Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.I
153	Environmental Laboratory Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.I

ID. No.	Activity	Determination	Comment
154	General Station Maintenance Activities and Associated Equipment	No	Case by case determination
155	Natural Gas, Propane, Butane, Liquefied Petroleum Gas, Acetylene Storage Tanks and Torches	Yes	The tanks are very small size, about 20-30 gallons. Insignificant pursuant to A.A.C. R18-2-101.57.j
156	Diesel Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j Note: One of diesel storage tank is rated at 1 MM gals. This tank was moved to Springerville Generating Station in 1980. It is before the NSPS Subpart Kb promulgated date. Hence there is no applicable rule for this tank.
157	Diesel Unloading, Pumping and Transfer System	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
158	Gasoline Storage Tanks	Yes	The tank is 10,000 gallon and is less than cutoff size 40,000 gallon in A.A.C.R18-2-710. Therefore, A.A.C. R18-2-710 will not be applied. Insignificant pursuant to A.A.C. R18-2-101.57.b.
159	Waste Oil Drum Storage Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
160	Waste Oil Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
161	Waste Storage Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
162	Building Housekeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a
163	Site Housekeeping Activities Including Vacuum Truck and Spill Cleanup	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a, j
164	Permitted Open Burning	No	Subject to A.A.C. R18-2-602
165	Fire Fighting Activities Including Training	No	Subject to A.A.C. R18-2-602
166	Landscaping and Site Housekeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a
167	Use of Pesticides, Fumigants and Herbicides for Site Housekeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
168	Grounds keeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a
169	Industrial Vacuum Cleaners	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
170	Use of Consumer Products (Product use at site in same manner as normal consumer use)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
171	All Paved and Unpaved Roads Except Ash Haul Roads Located Within Site Boundaries	No	Subject to A.A.C. R18-2-605
172	All Paved and Unpaved Roads Except Ash Haul Roads Located Outside Site Boundaries	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
173	Road and Lot Paving and Maintenance	No	Subject to A.A.C. R18-2-605

ID. No.	Activity	Determination	Comment
174	Sanding of Roadways for Safety	No	Subject to A.A.C. R18-2-605
175	Street and Parking Lot Striping	No	Subject to A.A.C. R18-2-604
176	Automobile, Station Wagon, Pickup Truck or Van Use at Site	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
177	Construction and Disturbance of Surface Areas for Purposes of Land Development (In compliance with R18-2-6 and any other applicable requirements)	No	Subject to A.A.C. R18-2-604
178	Maintenance Activities (Activities at a source associated with the maintenance, repair or dismantlement of a emission unit or other equipment installed at the source, including preparation for maintenance, repair or dismantlement and preparation for subsequent startup, including preparation of a shutdown vessel for entry, replacement of insulation, welding, cutting, brazing, soldering and steam purging of a vessel prior to startup; also includes maintenance, repair, welding, cutting, brazing, soldering or dismantlement of buildings, utility lines, pipelines, wells, excavations, earthworks and other structures that do not constitute and emission unit)	No	Case by case determination
179	Dipping Operations (Containers, reservoirs or tanks used exclusively in dipping operations to coat objects with oils, waxes or greases).	No	A.A.C R18-2-730 may be applied
180	Medical Activities (Activities directly used in the diagnosis and treatment of disease, injury or other medical condition).	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
181	Manually Operated Equipment (Equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning and associated venting hoods)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.f
182	Individual Equipment Joints and Attachments (All flanges, piping and piping attachments, valves, pump seals, pressure relief valves, safety valves that connect or hold together piping systems or protect systems from over pressurization)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
183	Battery Banks and Recharging Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
184	Plastic Pipe Welding	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
185	Painting Activities (Includes painting and preparation for painting of architectural structures and equipment for maintenance purposes)	No	Subject to A.A.C. R18-2-727
186	Steam Cleaning (Equipment used exclusively for portable steam cleaning)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
187	Abrasive Blast Equipment as Permitted (Any blast-cleaning equipment using a suspension with water or air and any exhaust system or collector serving them exclusively)	No	Subject to A.A.C. R18-2-726
188	Pump/Motor Lubricating Oil Reservoirs, Hydraulic Oil Reservoirs, Turbine Lubricating Oil Reservoirs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
189	Adhesive Usage Not Related to Production	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
190	Caulking Operation that are not part of production	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
191	Electric Motors	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
192	High Voltage Induced Corona	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
193	Safety devices (Fire extinguishers, fire suppressions systems, deluge systems)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
194	Filter Draining	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
195	Soil gas Sampling	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
196	General Vehicle Maintenance	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
197	Carbon Dioxide System (Unit 1 and 2) Vents, Drains and Reliefs	Yes	This is only for fire quenching system. Insignificant pursuant to A.A.C. R18-2-101.57.j
198	Carbon dioxide system (Unit 1 & 2) vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
199	Aerosol Can Use	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
200	Cathodic Protection Systems	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
201	Cafeteria Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
202	Circuit Breakers	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
203	Transportation Diesel Storage Tanks	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
204	Waste Water Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
205	Oil/Water Separator Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
206	Unit 3 and Unit 4 condensate system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
207	Unit 3 and Unit 4 condensate pump vent pump A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
208	Unit 3 and Unit 4 condensate pump vent pump B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
209	Unit 3 and Unit 4 condensate pump vent pump C	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
210	Unit 3 and Unit 4 gland steam condenser vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
211	Unit 3 and Unit 4 air ejector condenser vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
212	Unit 3 and Unit 4 feedwater system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
213	Unit 3 and Unit 4 feedwater heater 7 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
214	Unit 3 and Unit 4 feedwater heater 6 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
215	Unit 3 and Unit 4 feedwater heater 5 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
216	Unit 3 and Unit 4 deaerating heater vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
217	Unit 3 and Unit 4 boiler feed pump B vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.

ID. No.	Activity	Determination	Comment
218	Unit 3 and Unit 4 boiler feed pump A seal leakoff vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
219	Unit 3 and Unit 4 boiler feed pump B vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
220	Unit 3 and Unit 4 boiler feed pump B seal leakoff vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
221	Unit 3 and Unit 4 feedwater heater 3 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
222	Unit 3 and Unit 4 feedwater heater 2 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
223	Unit 3 and Unit 4 feedwater heater 1 vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
224	Unit 3 and Unit 4 boiler steam drum vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
225	Unit 3 and Unit 4 blowdown tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
226	Unit 3 and Unit 4 boiler emergency relief	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
227	Unit 3 and Unit 4 main transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
228	Unit 3 and Unit 4 main auxiliary transformer (2)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
229	Unit 3 and Unit 4 excitation transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
230	Unit 3 and Unit 4 generator grounding transformer	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
231	Unit 3 and Unit 4 hydrogen system vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
232	Unit 3 and Unit 4 stator cooling water vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
233	Unit 3 and Unit 4 circulating water system vents, drains and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
234	Unit 3 and Unit 4 condenser vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
235	Unit 3 and Unit 4 condenser air removal vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
236	Unit 3 and Unit 4 auxiliary steam system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
237	Unit 3 and Unit 4 SDA lime system water vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
238	Unit 3 and Unit 4 condensate tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
239	Unit 3 and Unit 4 cooling water storage tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
240	Unit 3 and Unit 4 cooling water system vent, drain, and relief	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
241	Unit 3 and Unit 4 water/steam sampling system vent, drain, and relief	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
242	Unit 3 and Unit 4 polish system vents, drain, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
243	Unit 3 and Unit 4 polisher acid day tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
244	Unit 3 and Unit 4 polisher caustic day tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
245	Unit 3 and Unit 4 polisher vessel A vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
246	Unit 3 and Unit 4 polisher vessel B vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
247	Unit 3 and Unit 4 polisher vessel C vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
248	Unit 3 and Unit 4 chemical feed system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
249	Unit 3 and Unit 4 ammonia tank vent	Yes	Total ammonia usage for whole facility is < 10,000 lbs. There is no applicable requirement
250	Unit 3 and Unit 4 hydrazine tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
251	Unit 3 and Unit 4 phosphate dissolving Hooper	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
252	Unit 3 and Unit 4 phosphate day tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
253	Unit 3 and Unit 4 continuous emissions monitors	Yes	CEM is a monitoring system
254	Bottom ash dewatering bin A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
255	Bottom ash dewatering bin B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
256	Bottom ash dewatering bin B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
257	Bottom ash settling tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
258	Bottom ash surge tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
259	Lube oil system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
260	Clean lube oil storage tank vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
261	Raw water system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
262	Service water system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
263	Water treatment system vents, drains, and reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
264	Water treatment lime suction tanks	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
265	Water treatment influent tank 1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
266	Water treatment influent tank 2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
267	Water treatment reactivator 1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
268	Water treatment reactivator 2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
269	Reactivator 1 effluent tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
270	Reactivator 2 effluent tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
271	Reactivator sludge thickner tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
272	Reactivator sludge thickner supernatant tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
273	Soda ash solution tanks	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
274	Coagulant aid drum	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
275	Coagulant aid solution tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
276	Backwash storage tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
277	ROSEP acid day tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
278	Filtered water cartridge filter	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
279	Vacuum Degasifier Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
280	Reverse Osmosis Treated Water Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
281	ROSEP Chemical Cleaning Batch Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
282	Demineralizer Canon Vessel (2) Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
283	Demineralizer Anion Vessel (2) Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
284	Demineralizer Mixed Bed Vessel (2) Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
285	Demineralizer Acid Day Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
286	Demineralizer Caustic Day Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
287	Demineralizer Hot Water Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
288	Common Condensate Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
289	Potable Water System Hypochlorite Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
290	Potable Water Head Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
291	Potable Water System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
292	Polishing Demineralizer Acid Storage Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
293	Polishing Demineralizer Caustic Storage Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
294	Bulk Ammonia Storage Tank	Yes	Total ammonia usage for whole facility is < 10,000 lbs. There is no applicable rule.j
295	Water Treatment Acid Storage Tank B Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
296	Water Treatment Acid Storage Tank C Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
297	Water Treatment Caustic Storage Tank A Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
298	Water Treatment Caustic Storage Tank B Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
299	Cooling Tower Acid Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
300	Cooling Tower Dispersant Tank Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
301	Power Building HVAC System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
302	Service Air System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
303	Instrument Air System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
304	Yard Loop Header System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
305	Diesel Fire Pump	No	Subject to A.A.C.R18-2-319
306	Nitrogen System (Unit 1 and 2) Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
307	Hydrogen System (Unit 1 and 2) Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
308	Polisher Resin Separation and Cation Regeneration Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
309	Polisher Anion Regeneration Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
310	Polisher Mixing and Storage Vessel Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
311	Neutralizing System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
312	Neutralizing Tank A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
313	Neutralizing Tank B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
314	Oily Waste System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
315	Oil Waste Surge Tank Vent Oil/Water Separator Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
316	Oil Separator Discharge Tank waste Water Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
317	Sewer System Vents, Drains and Reliefs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
318	Building Latrine Vents	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
319	Sewage Treatment Facility	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
320	Raw Water Storage Reservoir A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
321	Raw Water Storage Reservoir B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
322	Makeup Water Reservoir A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
323	Makeup Water Reservoir B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
324	Recoverable Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
325	Recoverable Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
326	Cooling Tower Blowdown Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
327	Cooling Tower Blowdown Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
328	Process Waste Water Pond	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
329	Sludge Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
330	Sludge Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
331	Sludge Pond C	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
332	Sludge Pond D	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
333	Storm Water Run Off Pond #1	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
334	Storm Water Run Off Pond #2	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
335	Storm Water Run Off Pond #3	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
336	Coal Pile Run Off Pond	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
337	Sewage Treatment Pond A	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
338	Sewage Treatment Pond B	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
339	Evaporation Pond #1	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
340	Evaporation Pond #2	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
341	Evaporation Pond #3	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
342	Evaporation Pond #4	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
343	Evaporation Pond #5	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
344	Evaporation Pond #6	Yes	Only water evaporates from the pond. Insignificant pursuant to A.A.C. R18-2-101.57.j
345	General Station Maintenance Activities and Associated Equipment	No	Case by case determination
346	Natural Gas, Propane, Butane, Liquefied Petroleum Gas, Acetylene Storage Tanks and Torches	Yes	The tanks are very small size, about 20-30 gallons. Insignificant pursuant to A.A.C. R18-2-101.57.j
347	Waste Oil Drum Storage Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
348	Waste Oil Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
349	Waste Storage Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
350	Building Housekeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
351	Site Housekeeping Activities Including Vacuum Truck and Spill Cleanup	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
352	Landscaping and Site Housekeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a
353	Use of Pesticides, Fumigants and Herbicides	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
354	Groundskeeping Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.a

ID. No.	Activity	Determination	Comment
355	Industrial Vacuum Cleaners	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
356	Use of Consumer Products (Products us at site in same manner as normal consumer use)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
357	All Paved and Unpaved Roads Except Ash Haul Roads Located Outside Site Boundaries	NO	Subject to R18-2-604.
358	Automobile, Station Wagon, Pickup Truck or Van Use at Site	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
359	Medical Activities (Activities directly used in the diagnosis and treatment of disease, injury or other medical conditions).	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
360	Manually Operated Equipment (Equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning and associated venting hoods)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.f
361	Individual Equipment Joints and Attachments (All flanges, piping and piping attachments, valves, pump seals, pressure relief valves, safety valves that connect or hold together systems or protect systems from over pressurization)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
362	Battery Banks and Recharging Area	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
363	Plastic Pipe Welding	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
364	Steam Cleaning (Equipment used exclusively for portable stream cleaning)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
365	Pump/Motor Lubricating Oil Reservoirs, Hydraulic Oil Reservoirs, Turbine Lubricating Oil Reservoirs	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
366	Adhesive Usage Not Related to Production	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
367	Caulking Operation that are not part of production	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
368	Electric Motors	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
369	High Voltage Induced Corona	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
370	Safety devices (Fire extinguishers, fire suppressions systems, deluge systems)	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
371	Filter Draining	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
372	Soil gas Sampling	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
373	General Vehicle Maintenance	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
374	Carbon Dioxide System (Unit 1 and 2) vents, drains and reliefs	Yes	This is only for fire quenching system. Insignificant pursuant to A.A.C. R18-2-101.57.j

ID. No.	Activity	Determination	Comment
375	Carbon Dioxide System (Unit 1 and 2) vents, drains and reliefs	Yes	This is only for fire quenching system. Insignificant pursuant to A.A.C. R18-2-101.57.j
376	Aerosol Can Use	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
377	Cathodic Protection Systems	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
378	Cafeteria Activities	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
379	Circuit Breakers	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
380	Water Treatment Acid Storage Tank A Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j
381	Waste Water Storage Tank	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
382	Oil/Water Separator Vent	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.
383	500,000 space heater which burns on-specification used oil.	Yes	Insignificant pursuant to A.A.C. R18-2-101.57.j.

LIST OF ABBREVIATIONS

(Abbreviations should always be spelled out in the document the first time they are used - a generic list is provided below.)

AAAQG	Arizona Ambient Air Quality Guideline
A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
AQD	Air Quality Division
AQG	Air Quality Guidelines
Btu/ft <sup>3</sup>	British Thermal Units per Cubic Foot
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
DEGF	Degrees Fahrenheit
DEGK	Degrees Kelvin
FERC	Federal Energy Regulatory Commission
ft	Feet
g	Grams
HAP	Hazardous Air Pollutant
hp	Horsepower
hr	Hour
IC	Internal Combustion
lb	Pound
m	Meter
MMBtu	Million British Thermal Units
µg/m <sup>3</sup>	Microgram per Cubic Meter
MMCFD	Million Cubic Feet Per Day
NAAQS	National Ambient Air Quality Standard
NO <sub>x</sub>	Nitrogen Oxide
NO <sub>2</sub>	Nitrogen Dioxide
O <sub>3</sub>	Ozone
Pb	Lead

PM.....	Particulate Matter
PM <sub>10</sub> .....	Particulate Matter Nominally less than 10 Micrometers
Psia.....	Pounds per square Inch (absolute)
PTE.....	Potential-to-Emit
s.....	Seconds
SO <sub>2</sub> .....	Sulfur Dioxide
TPY.....	Tons per Year
TSP.....	Total Suspended Particulate
USEPA.....	United States Environmental Protection Agency
VOC.....	Volatile Organic Compound
yr.....	Year