May 10, 2005

Subject: Iatan Station PSD Application

Purpose of PSD Application

Iatan unit 1 maximum heat input will be increased from the current 6,600 mmBtu/hr to 7,800 mmBtu/hr to accommodate the scheduled turbine upgrade in 2008.

Iatan unit 2 is a new unit with a design heat input of 8,100 mmBtu/hr

Submittal of PSD Application

The PSD application will be submitted to MDNR Air Pollution Control Program on May 16, 2005

Emission Limits in Iatan PSD Application

	Iatan Unit 1	Iatan Unit 2
SO_2	0.10 Lbs/mmBtu *	0.09 Lbs/mmBtu *
NOx	0.10 Lbs/mmBtu **	0.08 Lbs/mmBtu **
PM10	0.025 Lbs/mmBtu ****	0.025 Lbs/mmBtu ****
Mercury	39 x 10^{-6} Lbs/Gross MWH ***	39 x 10^{-6} Lbs/Gross MWH ***
CO	0.20 Lbs/mmBtu ****	0.16 Lbs/mmBtu****
VOC's	0.0036 Lbs/mmBtu****	0.0036 Lbs/mmBtu****

* 30 day rolling average excluding startup, shutdown, and emergency

** 30 day rolling average excluding startup, shutdown, and malfunction

*** 12 month rolling average

**** Annual Stack Test

Exhibit No. 46 45
Case No(s). EO-2005-0329
Date 6-27-05 Rptr TT

Netting Out for SO_2 and NOx @ Iatan Station

Pollutant	Current Permit	Baseline	PSD Applications	
			Unit 1	Unit 2
SO_2	1.20 lbs/mmBtu	0.67 lbs/mmBtu	0.10 lbs/mmBtu	0.09 lbs/mmBtu
NOx	0.70 lbs/mmBtu	0.352 lbs/mmBtu	0.10 lbs/mmBtu	0.08 lbs/mmBtu

Comparison of current unit 1 baseline emissions for sulfur dioxide and nitrogen oxides compared to the entire stations emissions after the addition of the second unit plus increased heat input on unit 1 and new permitted limits are in effect is given below.

Pollutant	Baseline *	Annual Emissions in Tons based on Potential to Emit Heat Input and Permitted Stack Emission Rate	Reduction	
	Unit 1	Station	Tons	%
SO_2	18,809 Tons	6,609 Tons	12,200 Tons	64.9
NOx	9,873 Tons	6,079 Tons	3,794 Tons	38.4

* Average of 2003 and 2004 actual emissions

The per unit contribution to the total stations emissions for sulfur dioxide and nitrogen oxides is given below.

Pollutant	Annual Emissions in Tons based on Potential to Emit Heat Input and Permitted Stack Emission Rate			Permitted Emission Rate- Lbs/mmBtu	
	Station	Unit 1	Unit 2	Unit 1	Unit 2
SO_2	6,609	3,416	3,193	0.10	0.090
NOx	6,079	3,241	2,838	0.10	0.08

For determining "Net Significant Increase" in annual emissions for each regulated criteria pollutants the facilities baseline emissions were established using the average of the previous two years actual emissions.

Year	Actual Emissions based on CEM data- Tons		Actual Emission Rate based on CEM - Lbs/mmBtu		Actual Annual Heat Input- mmBtu
	SO_2	NOx	SO_2	NOx	
2000	13,430	6,001	0.65	0.289	41,527,816
2001	16,283	6,810	0.62	0.260	52,388,338
2002	14,856	7,351	0.61	0.304	48,359,038
2003	18,400	9,864	0.65	0.346	57,020,000
2004	19,219	9,883	0.70	0.350	55,081,260
Baseline*	18,809	9,873	0.67	0.352	54,829,866

* Average of 2003 and 2004 actual emissions

Coal handling System

The coal handling system for Units 1 and 2 will consist of existing, modified, and new sources.

There will be one new inactive coal storage pile with an area of 3.34 acres, and one new active storage pile with an area of 1.3 acres. The existing inactive coal storage pile, with an area of approximately 20.7 acres, will be unmodified.

Coal will be delivered to the site by railcar using the existing rotary car dumper, which is equipped with foam surfactant dust suppression equipment on the conveyor and fine water mist spray during coal car unloading. The maximum design rate of the rotary car dumper will remain unchanged at 4,000 tph, although a new belt feeder and conveyor will be installed between the rotary car dumper and Transfer Tower #1.

The coal unloading system will include one new transfer tower, Transfer Tower #1A, and a telescoping chute with a capacity of 4,000 tph.

The existing stacker/reclaimer will remain unmodified.

Coal will be reclaimed from the inactive storage piles by the existing stacker/reclaimer, which will be modified to increase the reclaim capacity to 3,500 tph. Coal will be reclaimed from the new active storage pile by both the existing underground reclaim hopper and a new underground reclaim hopper, each with a conveyor capable of delivering 1,750 tph.

Coal reclaimed from either the active or inactive storage piles will be transferred, via the existing Transfer Tower #2, to the coal crushers.

There is one existing coal crusher and one new one is proposed. Each coal crusher has a capacity of 1,500 tph. The maximum design rate from the crusher to the unit storage bunkers will be 3,000 tph via one existing and one new conveyor.

Where possible, the coal handling equipment will be enclosed, and the enclosed spaces will be vented to baghouses capable of achieving 99 percent control of PM_{10}.

Limestone for the pollution control systems will be delivered either by truck or railcar. Fly ash, bottom ash, and gypsum will either be sold or deposited in the 140-acre on-site landfill. In either case, they will be transported by haul trucks.

All haul roads will be paved.

All haul road traffic is limited to the hours between 6 am and 10 pm.

Separate haul roads will be used for the sale of combustion by-products produced by Units 1 and 2.