

Table 3-1 AERMOD Modeling Results for SO₂ - Scenario 1

Year	Pollutant	Averaging Period	AERMOD-PRIME	Monitored Background	AERMOD-PRIME + Background *	NAAQS	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
							X (m)	Y (m)				
2000	SO ₂	3-hour	763.5	238.4	1,001.9	1300	322770.8	4298791.5	182.7	349	6.1	39.6
		24-hour	266.5	51.0	317.5	365	322880.8	4298542.5	102.7	133	6.7	0.0
		Annual	39.6	15.7	55.3	80	322880.8	4298542.5	102.7	133	6.7	0.0
2001	SO ₂	3-hour	926.3	238.4	1,164.7	1300	322729.9	4298820.0	221.1	340	7.7	39.6
		24-hour	305.4	51.0	356.4	365	322787.7	4298786.0	174.8	354	4.6	39.6
		Annual	37.4	15.7	53.1	80	322880.8	4298542.5	102.7	133	6.7	0.0
2002	SO ₂	3-hour	842.2	238.4	1,080.6	1300	322770.8	4298791.5	182.7	349	6.1	39.6
		24-hour	277.0	51.0	328.0	365	322770.8	4298791.5	182.7	349	6.1	39.6
		Annual	29.9	15.7	45.6	80	322787.7	4298786.0	174.8	354	4.6	39.6
2003	SO ₂	3-hour	701.7	238.4	940.1	1300	322858.6	4298648.5	64.6	56	4.1	0.0
		24-hour	220.7	51.0	271.7	365	322880.8	4298542.5	102.7	133	6.7	39.6
		Annual	24.5	15.7	40.2	80	322871.6	4298565.0	81.4	125	5.6	0.0
2004	SO ₂	3-hour	726.6	238.4	965.0	1300	322770.8	4298791.5	182.7	349	6.1	39.6
		24-hour	285.7	51.0	336.7	365	322880.8	4298542.5	102.7	133	6.7	39.6
		Annual	28.7	15.7	44.4	80	322880.8	4298542.5	102.7	133	6.7	0.0

* SO₂ background concentrations for 24-hour averaging period are less than 51 ug/m³ during periods when highest impacts from Unit 1 are predicted.

Table 3-2 AERMOD Modeling Results for SO₂ - Scenario 2

Year	Pollutant	Averaging Period	AERMOD-PRIME	Monitored Background	AERMOD-PRIME + Background*		NAAQS	Impact Location		Distance	Direction	Ground Elevation	Flagpole Elevation
					Predicted Concentrations ((g/m ³))	X (m)		Y (m)					
2000	SO ₂	3-hour	750.5	238.4	988.9	1300	322700.9	4298819.5	232.2	333	10.3	39.6	
		24-hour	295.7	51.0	346.7	365	322747.6	4298814.0	210.0	344	6.6	39.6	
		Annual	40.9	15.7	56.6	80	322871.6	4298565.0	81.4	125	5.6	39.6	
2001	SO ₂	3-hour	893.9	238.4	1,132.3	1300	322717.6	4298816.5	222.4	337	8.8	39.6	
		24-hour	280.6	51.0	331.6	365	322787.7	4298786.0	174.8	354	4.6	39.6	
		Annual	40.9	15.7	56.6	80	322770.8	4298791.5	182.7	349	6.1	39.6	
2002	SO ₂	3-hour	1,000.0	238.4	1,238.4	1300	322717.6	4298816.5	222.4	337	8.8	39.6	
		24-hour	313.3	51.0	364.3	365	322770.8	4298791.5	182.7	349	6.1	39.6	
		Annual	33.3	15.7	49.0	80	322787.7	4298786.0	174.8	354	4.6	39.6	
2003	SO ₂	3-hour	765.3	238.4	1,003.7	1300	322858.6	4298648.5	64.6	56	4.1	0.0	
		24-hour	231.7	51.0	282.7	365	322880.8	4298542.5	102.7	133	6.7	0.0	
		Annual	24.5	15.7	40.2	80	322871.6	4298565.0	81.4	125	5.6	39.6	
2004	SO ₂	3-hour	750.2	238.4	988.6	1300	322858.6	4298648.5	64.6	56	4.1	0.0	
		24-hour	266.7	51.0	317.7	365	322880.8	4298542.5	102.7	133	6.7	0.0	
		Annual	28.6	15.7	44.3	80	322880.8	4298542.5	102.7	133	6.7	0.0	

* SO₂ background concentrations for 24-hour averaging period are less than 51 ug/m³ during periods when highest impacts from Unit 1 are predicted.

Table 1
Summary of Monitored SO₂ Concentrations During Periods of Highest Impact
 (Unit 1 Cycling Between 35 MW and 88 MW at Scenario# 1 Hours of Operation)

Top 25 Concentrations Days	SO ₂ Monitored Concentrations (µg/m ³)	Highest Second Highest Predicted 24- Hour Concentration	Total Concentrations (µg/m ³)
1/14/2000	16		
1/27/2000	14		
4/8/2000	3		
6/25/2000	7		
12/28/2000	36	H2H = 266	302
11/25/2001	9		
11/30/2001	8	H2H = 305	314
3/29/2002	20		
4/2/2002	16		
4/8/2002	12	H2H = 277	289
5/6/2002	8		
5/13/2002	5		
11/23/2002	12		
12/26/2002	no data		
3/31/2003	14	H2H = 221	235
4/1/2003	13		
9/19/2003	6		
11/29/2003	5		
12/23/2003	16		
1/31/2004	24		
4/4/2004	7	H2H = 286	293
4/5/2004	14		
11/5/2004	9		

Table 2
Summary of Monitored SO₂ Concentrations During Periods of Highest Impact
 (Unit 1 Cycling Between 35 MW and 88 MW at Scenario# 2 Hours of Operation)

Top 25 Concentrations Days	SO ₂ Monitored Concentrations (µg/m ³)	Highest Second Highest Predicted 24- Hour Concentration	Total Concentrations (µg/m ³)
8/22/2000	9		
6/24/2000	12	H2H = 296	308
3/12/2000	8		
9/13/2001	3		
11/25/2001	9		
11/30/2001	8	H2H = 281	289
4/2/2002	16	H2H = 313	329
5/6/2002	8		
2/23/2003	16	H2H = 232	248
3/25/2003	16		
3/31/2003	14		
4/1/2003	13		
4/14/2003	18		
4/23/2003	11		
9/19/2003	6		
9/22/2003	2		
11/13/2003	7		
11/29/2003	5		
2/7/2004	20	H2H = 267	287
2/21/2004	5		
3/21/2004	5		
4/4/2004	7		
4/5/2004	14		
6/14/2004	no data		
11/5/2004	9		