APPENDIX C

ATTAINMENT DEMONSTRATION MODELING RESULTS FOR 1-HOUR SULFUR DIOXIDE NAAQS NONATTAINMENT AREAS

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DAVIESS COUNTY ATTAINMENT DEMONSTRATION MODELING RESULTS

Hoosier Energy - Frank E. Ratts Generating Station (Ratts)

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 1	6.00	1,160	6,960
Boiler 2	6.00	1,160	6,960
Auxiliary Boiler	0.05	20	1

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Hoosier Energy - Frank E. RattsGenerating Station
Modeled Concentration ($\mu g/m^3$)	951. 71
Background ($\mu g/m^3$)	22.59
Total Concentration ($\mu g/m^3$)	**974.21**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 1	0.05	1,160	58
Boiler 2	0.05	1,160	58
Auxiliary Boiler	0.05	20	1

Table 4
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Hoosier Energy - Frank E. Ratts Generating Station
Modeled Concentration ($\mu g/m^3$)	8.28
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**30.78**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Indianapolis Power and Light - Petersburg Generating Station

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1	6.00	2,200	13,200
Unit 2	6.00	4,144	24,864
Unit 3	1.2	5,540	6,648
Unit 4	1.2	5,550	6,660

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Petersburg Generating Station
Modeled Concentration ($\mu g/m^3$)	1,681.11
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**1,703.61**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1	0.15	2,200	330
Unit 2	0.15	4,144	621.6
Unit 3	0.37	5,540	2,049.8
Unit 4	0.35	5,550	1,942.5

Table 4
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Petersburg Generating Station
Modeled Concentration ($\mu g/m^3$)	165.15
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	187.65
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

MARION COUNTY ATTAINMENT DEMONSTRATION MODELING RESULTS

Belmont Wastewater Treatment Plant

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/ton	tons/hr	lbs/hr
Main Stack I1-I4	8	10.4	56.76*
Incinerator 5	2.00	2.6	14.19*
Incinerator 6	2.00	2.6	14.19*
Incinerator 7	2.00	2.6	14.19*
Incinerator 8	2.00	2.6	14.19*

*Limited SO_2 emission rate for incinerated sludge plus No.2 fuel oil-fired auxiliary burners' emissions.

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Belmont Wastewater Treatment Plant
Modeled Concentration ($\mu g/m^3$)	2,909.6
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**2932.1**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for New SO_2 Emission Rate Limits
to Comply with Subpart MMMM of 40 CFR Part 60

Emission Unit	lbs/ton	tons/hr	lbs/hr
Main Stack I1-I4	8	10.4	9.466*

*Limited SO_2 emission rate for incinerated sludge plus No.2 fuel oil-fired auxiliary burners' emissions.

Table 4
Modeled Highest 4th High at New SO_2 Emission Rate Limits
to Comply with Subpart MMMM of 40 CFR Part 60

Concentration	Belmont Wastewater Treatment Plant
Modeled Concentration ($\mu g/m^3$)	122.7
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**145.2**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Table 5
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits
Maximized to Comply with 1-Hour SO_2 NAAQS

Emission Unit	lbs/ton	tons/hr	lbs/hr
Main Stack I1-I4	8	10.4	12.5*

*Limited SO_2 emission rate for incinerated sludge plus No.2 fuel oil-fired auxiliary burners' emissions.

Table 6
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits
Maximized to Comply with 1-Hour SO_2 NAAQS

Concentration	Belmont Wastewater Treatment Plant
Modeled Concentration ($\mu g/m^3$)	162.0
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**184.5**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Citizens Thermal, C.C. Perry K Steam Plant

Table 7
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 11	0.30	368	110.4
Boiler 12	0.30	352	105.6
Boiler 13	3.00	403	1,209
Boiler 14	3.00	403	1,209
Boiler 15	3.00	324	972
Boiler 16	3.00	324	972
Boiler 17	0.30	228	68.4
Boiler 18	0.30	228	68.4

Table 8
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Citizens Thermal
Modeled Concentration ($\mu g/m^3$)	765.6
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**788.1**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 9
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 11	0.2	368	73.6
Boiler 12	0.0006	439	0.2634
Boiler 13	0.2	403	80.6
Boiler 14	0.2	403	80.6
Boiler 15	0.0006	340	0.204
Boiler 16	0.0006	340	0.204
Boiler 17	0.3	242	72.6
Boiler 18	0.3	242	72.6

Table 10
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Citizens Thermal
Modeled Concentration ($\mu g/m^3$)	66.5
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	89.0
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Indianapolis Power and Light Company - Harding Street Plant

Table 11
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr	Controlled/ Limited lbs/hr
Boiler 9	0.35	527	184.45	
Boiler 10	0.35	527	184.45	
Boiler 50	4.7	1,017	4,779.9	
Boiler 60	4.7	1,017	4,779.9	
Boiler 70	5.3	4,123	21,851.9	655.557 (97% control)
Gas Turbine 1	0.35	299	104.65	
Gas Turbine 2	0.35	299	104.65	
Gas Turbine 4	0.35	875	306.25	
Gas Turbine 5	0.5	867	433.5	
Gas Turbine 6	0.008	1,660	1.26	NG at 0.08% sulfur
Emergency Generator	0.5	27.6	13.8	0.48 (500 hrs/yr)

Table 12
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Harding Generating Station
Modeled Concentration ($\mu g/m^3$)	1,823.8
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**1,846.3**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 13
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr	Controlled/ Limited lbs/hr
Boiler 50	0.0006	1,017	0.6102	
Boiler 60	0.0006	1,017	0.6102	
Boiler 70	0.0006	4,123	2.4738	
Gas Turbine 1	0.1	299	29.9	
Gas Turbine 2	0.1	299	29.9	
Gas Turbine 4	0.1	875	87.5	
Gas Turbine 5	0.1	867	86.7	
Gas Turbine 6	0.0006	1,660	0.996	
Emergency Generator	0.5	27.6	13.8	500 hrs/yr

Table 14
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Harding Generating Station
Modeled Concentration ($\mu g/m^3$)	165.1
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	187.6
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Table 15
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Main Stack S-100			73.2
Unit 2 WESP Stack			342.8

Table 16
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Quemetco
Modeled Concentration ($\mu g/m^3$)	1,083.5
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**1,106**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 17
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 2 WESP Stack			52

Table 18
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Quemetco
Modeled Concentration ($\mu g/m^3$)	165.6
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	188.1
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Rolls Royce Corporation

Table 19
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits w/o Engine Test Cells

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 0070-58	2.1	44	92.4
Boiler 0070-59	2.1	44	--
Boiler 0070-62	2.1	244	512.4
Boiler 0070-63	2.1	244	512.4
Boiler 0070-64	2.1	244	512.4
Boiler 0070-65	2.1	244	--
2 Gas Turbine Engines 0070-66	0.5	107	107
12 Gas Turbine Engines 0070-67	0.5	27.2	163.2
2 Gas Turbine Engines 0070-68a and 0070-68b	0.5	39	39
6 Gas Turbine Engines 0070-68c, 0070-68d, and 0070-68e	0.5	27.2	81.6
3 Gas Turbine Engines 0070-69	0.5	27.2	40.8
Three Shack Heaters 0070-70	0.6	90	162
Generating Turbine 0070-80	0.15	68	10.2
501k Turbine Generator	0.5	35	17.5
Rental Generator			3.83

Table 20
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits w/o Engine Test Cells

Concentration	Rolls Royce
Modeled Concentration ($\mu g/m^3$)	4,801.9
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**4,824.4**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 21

Hourly Emission Rates for Proposed SO_2 Emission Rate Limits with Engine Test Cells

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 0070-58 or 0070-59	0.0015	44	0.07
Boiler 0070-62 or 0070-63	0.0015	244	0.37
Boiler 0070-64	0.01	244	2.44
Boiler 0070-65	0.01	244	2.44
2 Gas Turbine Engines 0070-66	0.1	107	21.4
12 Gas Turbine Engines 0070-67	0.05	27.2	16.32
2 Gas Turbine Engines 0070-68a and 0070-68b	0.0006	39	0.0468
3 Gas Turbine Engines 0070-68c, 0070-68d, and 0070-68e	0.05	27.2	4.08
3 Gas Turbine Engines 0070-69	0.05	27.2	4.08
Three Shack Heaters 0070-70	0.0006	90	0.162
Generating Turbine 0070-80	0.01	68	0.68
Rental Generators	0.0015	15.3	0.023
Engine Test Cells at Plant 5	0.05		
Engine Test Cells at Plant 8	0.1		
Engine Test Cell Plant 5 0070-N16 Jet Fuel 2000 Hours	25 foot vertical stack		
Engine Test Cell Plant 5 0070-N19 Jet Fuel 100 Hours	20 foot vertical stack		
Engine Test Cell Plant 5 0070-N20 Jet Fuel 100 Hours	18 foot vertical stack		
Engine Test Cell Plant 5 0070-N21 Jet Fuel 100 Hours	20 foot vertical stack		
Engine Test Cell Plant 5 0070-N22 Jet Fuel 200 Hours	20 foot vertical stack		
Engine Test Cell Plant 5 0070-N23 Jet Fuel 200 Hours	30 foot vertical stack		
Engine Test Cell Plant 5 0070-N24 Jet Fuel 200 Hours	20 foot vertical stack		

Table 22

Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits with Engine Test Cells

Concentration	Rolls Royce
Modeled Concentration ($\mu g/m^3$)	163.1
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	185.6
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Table 23
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
70K Boiler 70-2722W	1.25	91.8	114.75
30K Boiler 30-2726S	1.25	39.3	49.125
28K Boiler 28-186N	1.25	36.8	46
Boiler CB-70K	0.5	91.1	45.55
BM Furnace BM2724W	1.25	21.38	26.725
Box Furnace BX2707V	1.25	16	20
DAB Furnace 732714	1.25	56.5	70.625
Born Heater 722804	0.05	6.7	0.335
Born Heater Furnace BXS2706Q	0.05	6	0.3
EP Furnace EP2729Q	1.25	3	3.75
CB20 CB600-300 Boiler	0.05	25.1	1.255
50K CN5-400 Boiler	0.05	61.1	3.055
BD Furnace BD2714V	1.25	15	18.75
Heater BS2740Q	1.25	6	7.5
Heater BT2728S	1.25	6	7.5
Furnace HW-925-001	1.25	9.8	12.25

Table 24
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Vertellus
Modeled Concentration ($\mu g/m^3$)	824.4
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**846.9**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 25
Hourly Emission Rates for Requested SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
70K Boiler 70-2722W	0.20	91.8	18.36
30K Boiler 30-2726S	0.25	39.3	9.825
28K Boiler 28-186N	0.27	36.8	9.936
Boiler CB-70K	0.0006	91.1	0.05466
BM Furnace BM2724W	0.05	21.38	1.069
Box Furnace BX2707V	0.05	16	0.0096
DAB Furnace 732714	0.05	56.5	0.0339
Born Heater 722804	0.05	6.7	0.00402
Born Heater Furnace BXS2706Q	0.05	6	0.0036
EP Furnace EP2729Q	0.05	3	0.0018
CB20 CB600-300 Boiler	0.09	25.1	0.01506
50K CN5-400 Boiler	0.09	61.1	0.03666
BD Furnace BD2714V	0.05	15	0.75
Heater BS2740Q	0.05	6	0.3
Heater BT2728S	0.05	6	0.3
Furnace HW-925-001	1.25	9.8	12.25
CS Kettle Born Heater Natural Gas	0.0006	5	0.003
CS Still Born Heater Natural Gas	0.0006	8.48	0.005088
Born Hot Oil Furnace (Process Heater) Unit 2607T Natural Gas Only	0.0006	3.6	0.00216

Table 26
Modeled Highest 4th High at Requested SO_2 Emission Rate Limits

Concentration	Vertellus
Modeled Concentration ($\mu g/m^3$)	138.0
Background ($\mu g/m^3$)	22.5
Total Concentration ($\mu g/m^3$)	**160.5**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

MORGAN COUNTY ATTAINMENT DEMONSTRATION MODELING RESULTS

Indianapolis Power and Light - Eagle Valley Generating Station

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr	Modeled
Unit 1	0.37	524	193.88	318.89
Unit 2	0.37	524	193.88	
Unit 3	0.37	524	193.88	
Unit 4	3.04	741	2,252.64	1,083.08
Unit 5	3.04	741	2,252.64	
Unit 6	3.04	1,017	3,091.68	5,344.32
Diesel Generator	0.5	28.4	14.2	0.49

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Eagle Valley Generating Station
Modeled Concentration ($\mu g/m^3$)	1,666.4
Background ($\mu g/m^3$)	24.6
Total Concentration ($\mu g/m^3$)	**1,691**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for PSD Permitted and Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Combustion Turbine 1	0.0014	2,542	3.5588
Combustion Turbine 2	0.0014	2,542	3.5588
Aux. Boiler	0.0014	79.3	0.11102
Dew Point Heater	0.0014	20.8	0.02912
Emergency Generator	0.0015	14.8	0.0222
Emergency Fire Pump	0.0015	3.85	0.005775

Table 4
Modeled Highest 4th High at PSD Permitted and Proposed Emission Rate Limits

Concentration	Indianapolis Power and Light - Eagle Valley Generating Station
Modeled Concentration ($\mu g/m^3$)	11.3
Background ($\mu g/m^3$)	24.6
Total Concentration ($\mu g/m^3$)	**35.9**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

PIKE COUNTY ATTAINMENT DEMONSTRATION MODELING RESULTS

Hoosier Energy - Frank E. Ratts Generating Station (Ratts)

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 1	6.00	1,160	6,960
Boiler 2	6.00	1,160	6,960
Auxiliary Boiler	0.05	20	1

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Hoosier Energy - Frank E. Ratts Generating Station
Modeled Concentration ($\mu g/m^3$)	1316.71
Background ($\mu g/m^3$)	25.9
Total Concentration ($\mu g/m^3$)	**1342.61**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Boiler 1	0.05	1,160	58
Boiler 2	0.05	1,160	58
Auxiliary Boiler	0.05	20	1

Table 4
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Hoosier Energy - Frank E. Ratts Generating Station
Modeled Concentration ($\mu g/m^3$)	11.31
Background ($\mu g/m^3$)	25.9
Total Concentration ($\mu g/m^3$)	**37.21**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Indianapolis Power and Light - Petersburg Generating Station

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1	6.00	2,200	13,200
Unit 2	6.00	4,144	24,864
Unit 3	1.2	5,540	6,648
Unit 4	1.2	5,550	6,660

Table 2
Modeled Highest 4th High at Allowable SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Petersburg Generating Station
Modeled Concentration ($\mu g/m^3$)	1,668.78
Background ($\mu g/m^3$)	25.9
Total Concentration ($\mu g/m^3$)	**1,694.68**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 3
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1	0.15	2,200	330
Unit 2	0.15	4,144	621.6
Unit 3	0.37	5,540	2,049.8
Unit 4	0.35	5,550	1,942.5

Table 4
Modeled Highest 4th High at Proposed SO_2 Emission Rate Limits

Concentration	Indianapolis Power and Light - Petersburg Generating Station
Modeled Concentration ($\mu g/m^3$)	163.78
Background ($\mu g/m^3$)	25.9
Total Concentration ($\mu g/m^3$)	189.68
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

VIGO COUNTY ATTAINMENT DEMONSTRATION MODELING RESULTS

Duke Energy - Wabash River Generation Station

Table 1
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 2	4.04	913.8	3691.75
Unit 3	4.04	922.9	3728.52
Unit 4	4.04	922.9	3728.52
Unit 5	4.04	1,096.2	4428.65
Unit 6	4.04	2,999.0	12,115.96

Table 2
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

Concentration	Duke Energy - Wabash River Generation Station
Modeled Concentration ($\mu g/m^3$)	524.81
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**547.81**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
County Models Attainment	**NO**

Table 3
Hourly Emission Rates for Proposed SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 6	0.5	2,999.0	1,499.5

Table 4
Modeled Highest 4th High at Proposed SO_2 Emissions Rate Limits

Concentration	Duke Energy - Wabash River Generation Station
Modeled Concentration ($\mu g/m^3$)	41.53
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**64.53**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Wabash River Combined Cycle Plant

Table 5
Hourly Emission Rates for Allowable SO_2 Emission Rate Limits

Emission Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1A	0.195	1,709.1	333.27

Table 6
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Wabash River Combined Cycle Plant
Modeled Concentration ($\mu g/m^3$)	13.56
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**36.56**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Table 7
Hourly Emission Rates for Allowable SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 1	--	52.0	527
Unit 2*	0.3	2,634.45	790.34

*The lb/MMBtu and MMBtu/hr values represent the emissions factor and heat input of the raw material, not of the flare.

Table 8
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	sgSolutions
Modeled Concentration ($\mu g/m^3$)	195.65
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**218.65**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 9
Hourly Emission Rates for Proposed SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr	Controlled/ Limited lbs/hr
Unit 1	--	52.0	527.00	
Unit 2*	0.3	2,634.45	790.34	500 hrs/yr

*The lb/MMBtu and MMBtu/hr value represents the emissions factor and heat input of the raw material, not of the flare.

Table 10
Modeled Highest 4th High at Proposed SO_2 Emissions Rate Limits

1-Hour SO_2 DV	sgSolutions
Modeled Concentration ($\mu g/m^3$)	165.91
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**188.91**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Sony Digital Audio Disc

Table 11
Hourly Emission Rates for Allowable SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 001	0.36	10.462	3.77
Unit 002	0.36	10.462	3.77
Unit 003	0.5	9.863	4.93
Unit 004	0.5	9.863	4.93
Unit 005	0.5	16.8	8.4
Unit 006	0.5	16.8	8.4
Unit 018	0.5	8.36	4.18

Table 12
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Sony Digital Audio Disc
Modeled Concentration ($\mu g/m^3$)	1,297.91
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**1,320.91**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 13
Hourly Emission Rates for Proposed SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Unit 001	0.05	10.462	0.523
Unit 002	0.05	10.462	0.523
Unit 003	0.05	9.863	0.493
Unit 004	0.05	9.863	0.493
Unit 005	0.05	16.8	0.84
Unit 006	0.05	16.8	0.84
Unit 018	0.05	8.36	0.418

Table 14
Modeled Highest 4th High at Proposed SO_2 Emissions Rate Limits

1-Hour SO_2 DV	**Sony Digital Audio Disc**
Modeled Concentration (µg/m3)	147.35
Background (µg/m3)	23.0
Total Concentration (µg/m3)	**170.35**
1-Hour SO_2 NAAQS (µg/m^3)	**196.2**
Models Attainment?	**YES**

Taghleef Industries, Inc.

Table 15
Hourly Emission Rates for Allowable SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Murray Iron Works Boiler	0.51	25.0	12.5
Murray Iron Works Boiler	0.51	25.0	12.5
Clayton Standby Boiler	0.51	20.992	10.496
Nebraska Boiler	0.51	35.37	17.685

Table 16
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Taghleef Industries, Inc.
Modeled Concentration ($\mu g/m^3$)	3,743.47
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**3,766.47**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**NO**

Table 17
Hourly Emission Rates for Proposed SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Clayton Standby Boiler	0.0015	20.992	0.03
Boiler Nebraska Boiler	0.0015	35.37	0.05
New Nebraska-D Boiler	0.0006	25.200	15.12

Table 18
Modeled Highest 4th High at Proposed SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Taghleef Industries, Inc.
Modeled Concentration ($\mu g/m^3$)	11.23
Background ($\mu g/m^3$)	23
Total Concentration ($\mu g/m^3$)	**34.23**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Terre Haute Regional Hospital

Table 19
Hourly Emission Rates for Allowable SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
#1 Boiler	0.45	12.5	5.625
#2 Boiler	0.45	12.5	5.625

Table 20
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Terre Haute Regional Hospital
Modeled Concentration ($\mu g/m^3$)	18.47
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**41.47**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**

Terre Haute Union Hospital

Table 21
Hourly Emission Rates for Allowable SO_2 Emissions Rate Limits

Emissions Unit	lbs/MMBtu	MMBtu/hr	lbs/hr
Keller Boiler 1	0.36	39.1	14.076
Keller Boiler 2	0.36	39.1	14.076

Table 22
Modeled Highest 4th High at Allowable SO_2 Emissions Rate Limits

1-Hour SO_2 DV	Terre Haute Union Hospital
Modeled Concentration ($\mu g/m^3$)	4.96
Background ($\mu g/m^3$)	23.0
Total Concentration ($\mu g/m^3$)	**27.96**
1-Hour SO_2 NAAQS ($\mu g/m^3$)	**196.2**
Models Attainment?	**YES**