



## Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

March 21, 2016

Mr. Robert Kaplan  
Acting Regional Administrator  
U.S. Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3950

Re: State Implementation Plan Submittal for  
Indiana Regarding 1-Hour SO<sub>2</sub> Attainment  
Clifty Creek Generating Station in  
Jefferson County, Indiana  
(Commissioner's Order #2016-02)  
Addendum Documentation of the Public  
Participation Process

Dear Mr. Kaplan:

Pursuant to Section 110 of the Clean Air Act (CAA) and Title 13 of the Indiana Code (IC), the Indiana Department of Environmental Management (IDEM) submits an amendment to the Indiana state implementation plan (SIP) for the Clifty Creek Generating Station (Clifty Creek) accomplished by Commissioner's Order #2016-02. IDEM submitted a request for parallel processing of the amendment to Indiana's SIP on February 5, 2016. IDEM scheduled a public hearing concerning the proposed SIP revision on March 10, 2016, and the public comment period concluded on March 17, 2016. No comments were received during the public comment period. Additionally, there was no request for a public hearing during the comment period, thus a hearing was not held.

The attached enclosure consists of the following:

- Commissioner's Order #2016-02 issued on February 1, 2016, that establishes permanent and enforceable sulfur dioxide (SO<sub>2</sub>) emission limits for Clifty Creek, located in Jefferson County, Indiana, in order to ensure continued attainment of the 2010 primary 1-hour SO<sub>2</sub> standard in the area surrounding the facility. The Commissioner's Order contains a facility-wide maximum 720 operating hour SO<sub>2</sub> rolling average mass emission rate applicable to Units 1 through 6 combined, as well as reporting and recordkeeping requirements and method for compliance. The effective date for the emission limitations in the Commissioner's Order is April 19, 2016. It contains and meets the requirements set forth in 42 U.S.C. §


7407(d)(3)(E)(iii) and the conditions will become applicable requirements as defined in 326 Indiana Administrative Code (IAC) 2-7-1.

- Administrative checklist, modeling summary and documentation of the public participation process.

This submittal consists of one (1) hard copy of the required documentation. An electronic version of the submittal in PDF format that is identical to the hard copy has been sent to Doug Aburano, Chief of U.S. EPA Region 5's Attainment Planning and Maintenance Section and Chris Panos of U.S. EPA Region 5.

IDEM requests that U.S. EPA proceed with review and approval of this amendment to Indiana's SIP. If you have any questions or need additional information, please contact Brian Callahan, Chief, Air Quality Standards and Implementation Section, Office of Air Quality at (317) 232-8244 or [bcallaha@idem.IN.gov](mailto:bcallaha@idem.IN.gov).

Sincerely,



Keith Baugues  
Assistant Commissioner  
Office of Air Quality

KB/sd/mad/bec/gf

Attachments: Supporting Documents

cc: Doug Aburano, U.S. EPA Region 5 (no enclosures)  
John Mooney, U.S. EPA Region 5 (no enclosures)  
Steve Rosenthal, U.S. EPA Region 5 (no enclosures)  
Pamela Blakley, U.S. EPA Region 5 (no enclosures)  
John Summerhays, U.S. EPA Region 5 (no enclosures)  
Chris Panos, U.S. EPA Region 5 (no enclosures)  
Jennifer Liljegren, U.S. EPA Region 5 (no enclosures)  
Keith Baugues, IDEM-OAQ (no enclosures)  
Scott Deloney, IDEM-OAQ (no enclosures)  
Mark Derf, IDEM-OAQ (no enclosures)  
Brian Callahan, IDEM-OAQ (no enclosures)  
Mike Mosier, IDEM-OAQ (no enclosure)  
Christine Pedersen, IDEM-OAQ (no enclosures)  
Jessica Reiss, IDEM-OAQ (no enclosures)  
File Copy

## Supporting Documents

Attachment A: Administrative Checklist (40 CFR 51, Appendix V)

Attachment B: Commissioner's Order #2016-02

Attachment C: Legal Notice of Public Hearing and Certificates of Web Publication

Attachment D: Modeling Summary

Data, calculations and methodology for determining a facility-wide maximum 720 operating hour rolling average SO<sub>2</sub> mass emission rate based on Clifty Creek's continuous emission monitoring data (available upon request).

# **Attachment A**

## **Administrative Checklist**

## ADMINISTRATIVE CHECKLIST (40 CFR 51, Appendix V)

- |   |                              |
|---|------------------------------|
| 1. The submittal is accompanied by a formal letter of submittal from the governor or his designee.  | Enclosed                     |
| 2. Evidence that the State has adopted the plan in the State code or body of regulations; or issued the permit, order, consent agreement ("document"); in final form.   | Attachment B                 |
| a. Date of adoption or final issuance:  | February 1, 2016             |
| b. The effective date of the plan, if different from the adoption/issuance date.  | April 19, 2016               |
| 3. Evidence that the State has the necessary legal authority under state law to adopt and implement the plan.   | IC 13-14-1-9<br>IC 13-14-2-1 |
| 4. A copy of the actual regulation or document submitted for approval and incorporation by reference into the plan, including the following:  | Attachment B                 |
| a. Indication of the changes made to the existing approved plan, where applicable.  |                              |
| b. The submittal shall be a copy of the official State regulation or document signed, stamped, dated by the appropriate state official indicating that it is fully enforceable by the State. Effective date shall be stated in the document itself. |                              |
| 5. Evidence that the State followed all of the procedural requirements of the State's laws and constitution in conducting and completing the adoption/issuance of the plan.   | Attachment B                 |
| 6. Evidence that public notice was given, including date of proof of publication.   | Attachment C                 |
| 7. Certification that public hearings were held in accordance with information provided in public hearing notice.   | Attachment C                 |
| 8. Compilation of public comments and State's response.   | Attachment C                 |
| 9. Technical Support Document (if source specific change).  | Attachment D                 |

# **Attachment B**

Commissioner's Order for Clifty Creek  
Generating Station addressing the 1-hour SO<sub>2</sub>  
NAAQS

Jefferson County





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Commissioner

STATE OF INDIANA )  
COUNTY OF MARION )

SS:

BEFORE THE INDIANA DEPARTMENT  
OF ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF: )  
ORDER OF THE COMMISSIONER )  
PURSUANT TO IC 13-14-2-1 )  
FOR CLIFTY CREEK GENERATING STATION )  
OF INDIANA )

### NOTICE AND ORDER OF THE COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

This Notice and Order of the Commissioner of the Department of Environmental Management ("Order") is issued pursuant to Indiana Code ("IC") 13-14-1-9, IC 13-14-2-1, and IC 13-14-2-7. During the Commissioner's review, it was determined that the Petition should be granted according to the terms specified below:

#### PETITION

Petitioner is the Indiana Kentucky Electric Corporation's, Clifty Creek Generating Station ("Petitioner"), a stationary electric power plant with Source I.D. Number 077-00001, located at 1335 Clifty Hollow Road in Madison, Jefferson County, Indiana, and permitted under the Part 70 air operating permit program.

On March 2, 2015, the U.S. District Court for the Northern District of California accepted a Consent Decree between the U.S. Environmental Protection Agency ("U.S. EPA"), the Sierra Club, and the Natural Resources Defense Council to resolve litigation concerning deadlines for completing one (1) hour sulfur dioxide ("SO<sub>2</sub>") National Ambient Air Quality Standard ("NAAQS") designations. Under the Consent Decree, U.S. EPA must designate certain areas as nonattainment, attainment, or unclassifiable in three phases.

The first Consent Decree phase requires U.S. EPA to designate areas that contain stationary sources that had not been announced for retirement as of March 2, 2015 and either emitted more than 16,000 tons of SO<sub>2</sub> in 2012 or emitted more than 2,600 tons of SO<sub>2</sub> and had an annual average emission rate of more than 0.45 pounds of SO<sub>2</sub> per one million British thermal units ("lb/MMBtu") in 2012, according to U.S. EPA's Air Quality Markets Database.

On March 20, 2015, U.S. EPA identified five (5) sources in Indiana that met the criteria for the first phase of the Consent Decree designations. U.S. EPA's list included the Petitioner, Clifty Creek Generating Station.

On September 16, 2015, the Indiana Department of Environmental Management ("IDEM") recommended designation of the area surrounding Clifty Creek Generating Station as attainment. The recommendation was based on modeling that included operation of a flue gas desulfurization system that became operational in July 2013.

On January 22, 2016, the Petitioner submitted a request to the Commissioner to impose a permanent and enforceable SO<sub>2</sub> mass emission rate on the Petitioner in order to ensure continued attainment of the SO<sub>2</sub> NAAQS in the area surrounding Clifty Creek Generating Station. The Petitioner proposed a facility-wide SO<sub>2</sub> mass emission rate of 2,624.5 SO<sub>2</sub> pounds per hour ("lb/hr"), 720 operating hour rolling average, applicable to Unit No. 1 through Unit No. 6, combined.

### **FINDINGS**

Pursuant to IC 13-14-2-1(b) and IC 13-14-2-7(1), the Commissioner may issue Orders to secure compliance with Indiana's environmental statutes and rules, including the ambient air quality standard for SO<sub>2</sub> at 326 Indiana Administrative Code ("IAC") 1-3-4(b)(1)(A).

Based on the foregoing information, IDEM finds the following:

1. A permanent and enforceable SO<sub>2</sub> mass emission rate for Clifty Creek Generating Station is required in order to model continued attainment of the one (1) hour SO<sub>2</sub> NAAQS in the area surrounding the Petitioner.
2. Issuance of a Commissioner's Order will ensure the SO<sub>2</sub> mass emission rate remains permanent and enforceable, as required by 42 U.S.C. § 7407(d)(3)(E)(iii). Whereas revising a Part 70 Operating Permit would not create an adequately "permanent" requirement.
3. Approval by U.S. EPA of the Commissioner's Order as part of the Indiana State Implementation Plan ("SIP") will make the Order requirements federally enforceable. Upon approval as part of the Indiana SIP, the Order requirements become applicable requirements as defined in 326 IAC 2-7-1(6).
4. Based on modeling conducted by IDEM, the SO<sub>2</sub> mass emission rate proposed by the Petitioner is adequate to assure continued attainment of the SO<sub>2</sub> NAAQS.

### **ORDER**

1. This Order approves the Petition submitted by the Petitioner according to the terms specified below. This Order imposes on the Petitioner the SO<sub>2</sub> mass emission rate described below.
2. When any of Unit No. 1 through Unit No. 6, or any combination thereof, is operating, the combined SO<sub>2</sub> mass emission rate shall not exceed 2,624.5 lb/hr, as a 720 operating hour rolling average.



3. The Petitioner shall comply with the 720 operating hour rolling average SO<sub>2</sub> mass emission rate beginning April 19, 2016.
4. As required by 326 IAC 2-7-2(d)(1) and 326 IAC 2-7-5, the Petitioner shall apply to incorporate these Order requirements, including reporting and recordkeeping requirements and methods to determine compliance, into its Part 70 Operating Permit within ninety (90) days of U.S. EPA's approval of the Commissioner's Order as part of the Indiana SIP.
5. From April 19, 2016 until IDEM issues a Permit incorporating these Order requirements, the Petitioner shall comply with the reporting and recordkeeping requirements and methods to determine compliance specified in this paragraph.
  - a. Reporting: The Petitioner shall submit to IDEM, on a quarterly basis, a report of the facility-wide maximum 720 operating hour SO<sub>2</sub> rolling average mass emission rate for each day that any of Unit No. 1 through Unit No. 6, or any combination thereof, operates, beginning the second quarter reporting period, which is July 2016.
  - b. Recordkeeping: The Petitioner shall maintain records adequate to document compliance with the 720 operating hour rolling average SO<sub>2</sub> mass emission rate.
  - c. Method to determine compliance: Compliance shall be determined by a continuous emission monitoring system (CEMS) in accordance with 326 IAC 3-5; except that data substituted in accordance with 40 Code of Federal Regulations ("CFR") Part 75 will not be considered in this evaluation. The Petitioner may use the existing certified CEMS to meet this requirement.
6. This Order shall apply to and be binding upon the Petitioner, its successors and assigns. No change in ownership, corporate, or partnership status of the Petitioner shall in any way alter its status or responsibilities under this Order.
7. The requirements of this Order supersede any less stringent requirements applicable to the Petitioner.

#### **EFFECTIVE DATE OF ORDER**

Pursuant to IC 13-14-2-1(d), IC 4-21.5-3-1, IC 4-21.5-3-5(a)(6), and 40 CFR 51.102, IDEM will give notice of this Order to each entity to whom the Order is directed and affected neighbors by mailing and to the general public by web publication.

Pursuant to IC 4-21.5-3-7(a)(3), IC 4-21.5-3-2(e), and IC 4-21.5-3-5, this Order may be appealed by filing a Petition for review within eighteen (18) days after the date affected persons were given notice of the Order by U.S. mail. Information on petitions for review of this Order can be found at IC 4-21.5-3-7.

Pursuant to IC 4-21.5-3-5(f) and IC 4-21.5-3-2(e), the Order is effective eighteen (18) days from mailing of notice unless a Petition for review has been filed before or on the eighteenth (18<sup>th</sup>) day. However, the compliance date for the SO<sub>2</sub> mass emission rate in this Order is April 19, 2016.

Pursuant to 40 CFR 51.103, IDEM will submit this Order to U.S. EPA as a revision to the Indiana SIP. Upon approval by the U.S. EPA, this Order will be part of the Indiana SIP.

Persons seeking judicial review of this Order may do so in accordance with IC 4-21.5-5.

If you have procedural or scheduling questions regarding your request for review, you may contact the Office of Environmental Adjudication at (317) 232-8591. If you have questions regarding this Order, please contact Mark Derf, Office of Air Quality, by telephone at (317) 233-5682 or email at [MDERF@idem.IN.gov](mailto:MDERF@idem.IN.gov).

Dated at Indianapolis, Indiana this 1<sup>st</sup> day of February, 2016.



Carol S. Comer  
Commissioner  
Indiana Department of Environmental Management

# **Attachment C**

**Public Notice and Certificate of Publication for  
the Commissioner's Order for Clifty Creek  
Generating Station addressing the 1-hour SO<sub>2</sub>  
NAAQS**

**Jefferson County**



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Michael R. Pence  
Governor

Carol S. Comer  
Commissioner

### **Legal Notice – Public Comment Period and Opportunity for Public Hearing State Implementation Plan (SIP) Submittal**

#### **Clifty Creek Generating Station in Jefferson County Commissioner's Order No 2016-02**

Notice is hereby given under 40 CFR 51.102 that the Indiana Department of Environmental Management ("IDEM") is accepting written comments and providing an opportunity for a public hearing regarding a revision to the Indiana state implementation plan (SIP) for Indiana Kentucky Electric Corporation, Clifty Creek Generating Station, Source I.D. Number 077-00001, located at 1335 Clifty Hollow Road in Madison, Jefferson County, Indiana. All interested persons are invited and will be given reasonable opportunity to express their views concerning the proposed revision to the SIP.

The purpose of this notice is to solicit public comment on a proposed revision to the SIP that is accomplished by Commissioner's Order No. 2016-02 for Clifty Creek Generating Station. The Commissioner's Order imposes a sulfur dioxide emission limit upon Clifty Creek Generating Station. This Commissioner's Order will be submitted to the United States Environmental Protection Agency ("U.S. EPA") for approval as a revision to the Indiana SIP.

Any person may submit written comments on the proposed SIP revision. Written comments must be postmarked or delivered in person on or before March 17, 2016.

Any person may request a public hearing on the proposed SIP revision. Requests for a public hearing must be submitted on or before March 4, 2016. A hearing has been scheduled for March 10, 2016 at 6:00 p.m. eastern time. The hearing will occur at Hanover College Science Center, 607 Ball Drive, Hanover, Indiana, Building SCC, Room 136. If no timely request for a public hearing is received by March 4, 2016, the hearing will be cancelled. Interested parties can check the online IDEM calendar at <http://www.in.gov/activecalendar/EventList.aspx> or contact Mark Derf at the contact information listed below to see if the hearing has been cancelled. Interested parties may present oral or written comments at the public hearing, if held.

Comments and supporting documentation, or a request for a public hearing must be sent in writing to Mark Derf via the information provided below. Please refer to Commissioner's Order 2016-02 in all correspondence.

Mark Derf  
Indiana Department of Environmental Management  
Office of Air Quality  
100 North Senate Avenue  
Mail Code 61-50 IGCN 1003  
Indianapolis, Indiana 46204



A State that Works

Phone: (317) 233-5682  
Fax: (317) 233-2342  
E-mail: MDERF@idem.IN.gov.

A copy of the Commissioner's Order is available to any person upon request and is available for public inspection at the following locations:

Indiana Department of Environmental Management  
Office of Air Quality  
Indiana Government Center-North  
100 North Senate Avenue  
10th Floor  
Indianapolis, Indiana 46204.

and

Indiana Department of Environmental Management  
Southeast Regional Office  
820 Sweet Street  
Brownstown, Indiana 47220

and

Madison Jefferson County Public Library  
420 West Main Street  
Madison, Indiana 47250-3796

The Commissioner's Order is also available on the IDEM website at:  
<http://www.in.gov/idem/4686.htm>.

For additional information, please contact Mark Derf at the contact information provided above.





## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

February 3, 2016

### CERTIFICATE OF PUBLICATION

This is to certify that the Indiana Department of Environmental Management (IDEM) Notice of the opportunity for a Public Hearing regarding the following:

- **Commissioner's Order #2016-02 for Clifty Creek Generating Station of Indiana**

was published on IDEM's web site on February 3, 2016. It is expected that it will remain posted on the site until at least March 4, 2016.

The notice in full was available online at the following web address, under "Southeastern".

<http://www.in.gov/idem/5474.htm>

The notice was also available the same date at the following web address.

<http://www.in.gov/idem/4686.htm>

Web publication of the notice was at the request of Scott Deloney, Branch Chief, Programs Branch, Office of Air Quality, IDEM.

By:

Mike Finklestein  
IDEM Webmaster

Attachments:

Copy of web page as published.



## Resources

Compliance

Funding

Monitoring

Permitting

Environmental Consultants List

Environmental Guidance

Environmental Publications

Nonrule Policies

## Date and Time

Date and Time

Additional Clocks



Date: Wednesday, February 03, 2016

Time: 3:49:03 PM

Change date and time...

Time zone

(UTC-05:00) Eastern Time (US & Canada)

Change time zone...

Daylight Saving Time begins on Sunday, March 13, 2016 at 2:00 AM. The clock is set to go forward 1 hour at that time.

☐ Notify me when the clock changes

Get more time zone information online

How do I set the clock and time zone?

OK

Cancel

Apply

02/02/2016

01/15/2016 - No

02/02/2016

01/12/2016 - Yes

02/11/2016

Dearborn

01/28/2016 - No

02/28/2016

Floyd

02/02/2016 - Yes

03/03/2016

Harrison

Jackson

Jefferson

02/04/2016 - Yes

03/04/2016

Jennings

01/14/2016 - Yes

02/15/2016

Ohio

Ripley

Scott

Switzerland

01/28/2016 - No

02/28/2016

12/31/2015 - Yes

02/01/2016

Washington

No current public notices.

No current public notices.

No current public notices.

No current public notices.

No current public notices.

No current public notices.

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## Waste Tire Program

- Water Quality
- Watersheds and Nonpoint Source
- Water Pollution
- Wetlands, Lakes and Streams
- Regulation

## Resources

- Compliance
- Funding
- Monitoring
- Permitting
- Environmental Consultants List
- Environmental Guidance
- Environmental Publications
- Nonrule Policies

The Indiana Administrative Code Title 326 Air Pollution Control Division website provides the most up-to-date listing of these files.

### Commissioner's Orders

A Commissioner's Order is a permanent enforceable order specifically authorized by an air rule as an alternative to a rule requirement. Once issued, a Commissioner's Order becomes a condition in an air permit. In most cases, a Commissioner's Order will be submitted to U.S. EPA for approval as an amendment to Indiana's state implementation plan for the Clean Air Act.

- [Commissioner's Order #2016-02 for Clifty Creek Generating Station of Indiana:](#)
  - [Notice and Order of the Commissioner of the Department of Environmental Management IPDF](#)
  - [Legal Notice of Public Hearing IPDF](#)
- [Commissioner's Order #2016-01 for A.B. Brown Generating Station of Indiana:](#)
  - [Notice and Order of the Commissioner of the Department of Environmental Management IPDF](#)
  - [Legal Notice of Public Hearing IPDF](#)
- [Commissioner's Order #2015-01 for Abengoa Bioenergy of Indiana:](#)
  - [Notice and Order of the Commissioner of the Department of Environmental Management IPDF](#)
  - [Legal Notice of Public Hearing IPDF](#)
- [Commissioner's Order #2014-01 for Jeffboat LLC:](#)
  - [Notice and Order of the Commissioner of the Department of Environmental Management IPDF](#)
  - [Legal Notice of Public Hearing IPDF](#)
- [Commissioner's Order #2009-OAQ-01:](#)
  - [Notice of Commissioner's Order IPDF](#)
- [Commissioner's Order #2008-02 and Variance, Indianapolis Power & Light - Harding Street Generating Station:](#)
  - [Notice, Order, and Variance of the Commissioner of the Department of Environmental Management IPDF](#)
  - [IPL Legal Notice of Comment Period and Opportunity to Request a Public Hearing IDOC](#)
  - [Notice of Variance Decision IPDF](#)
- [Commissioner's Order #2008-01 and Variance, ALCOA Power Generating, Inc. - ALCOA Warrick Power Plant:](#)
  - [Notice, Order, and Variance of the Commissioner of the Department of](#)

Date and Time
Additional Clocks

Date: Wednesday, February 03, 2016  
Time: 3:52:05 PM

Time zone  
(UTC-05:00) Eastern Time (US & Canada)

Daylight Saving Time begins on Sunday, March 13, 2016 at 2:00 AM. The clock is set to go forward 1 hour at that time.

☐ Notify me when the clock changes

Get more time zone information online

How do I set the clock and time zone?

# **Attachment D**

Clifty Creek Generating Station:

Modeling Summary

Jefferson County

## **Indiana-Kentucky Electric Corporation – Clifty Creek Generating Station Commissioner’s Order Modeling Summary**

### **Background**

Initial modeling, using Clifty Creek’s hourly Continuous Emissions Monitoring (CEM) data from 2012-2014, showed higher modeled SO<sub>2</sub> concentrations that exceeded the 1-hour SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS). This modeling included emissions before and after Clifty Creek had installed their Fluidized Gas Desulfurization (FGD) system. After consultation with U.S. EPA, Indiana remodeled the SO<sub>2</sub> emissions from Clifty Creek after the FGD system became operational to determine the attainment designation for the area since emission controls have to be in place by the final SO<sub>2</sub> area designation date of July 2, 2016. The FGD system became fully operational in July 2013. The modeling period was set for one and half years from July 2013 through December 2014. This modeling showed attainment of the 1-hour SO<sub>2</sub> standard. Following the submittal of Indiana’s recommendations addressing the Round 2 consent decree in September of 2015, U.S. EPA pointed out a full three years of modeling would be required to make a characterization of air quality in the area and emission limits would have to be established that would be federally enforceable and permanent. Since this was the case, discussions with Clifty Creek resulted in their request for new SO<sub>2</sub> emission limits to be established, based on three years of meteorological data, per a Commissioner’s Order. These limits would be federally enforceable and permanent and incorporated into their permit at a later date.

### **Modeled Emission Limits and Results**

The FGD system controls SO<sub>2</sub> emissions from flue gases for all six generating units at Clifty Creek. Units 1, 2, and 3 are vented into Stack CS013. Units 3, 4, and 5 are vented into Stack CS046. The two stacks are contained within one stack shell. Base elevations at Clifty were reevaluated based on construction drawings for the facility. These new base elevations were used in this modeling analysis. All other modeling parameters were maintained and can be found in Enclosure 3, page 15 of Indiana’s Round 2 Consent Decree modeling submittal, dated September 16, 2015.

Three SO<sub>2</sub> emission scenarios were modeled: Scenario 1 was all emissions emitted from Stack CS013, Scenario 2 was all emissions emitted from Stack CS046, and Scenario 3 divided the emissions equally between Stack CS013 and Stack CS046. The worst case modeling scenario was Scenario 1, represented by all SO<sub>2</sub> emissions being emitted from Stack CS013. Based on this worst case modeling scenario, the emission limit was determined to be any of the Units 1 through 6 or any combination can never exceed 4,670 lbs/hr for the 1-hour SO<sub>2</sub> averaging period. A summary of the three modeling scenarios SO<sub>2</sub> emission and modeling results can be seen below in Table 1.

**Table 1: Clifty Creek 1-hour SO<sub>2</sub> Modeling Scenario Summary and Results**

<b>Scenario</b>	<b>Group ID</b>	<b>Modeled Emission Rate lb/hr</b>	<b>Concentration µg/m<sup>3</sup></b>	<b>Concentration µg/m<sup>3</sup></b>	<b>Concentration µg/m<sup>3</sup></b>
<b>Scenario 1</b>	<b>CS013</b>	4,670	<b>195.98</b>		
<b>Scenario 2</b>	<b>CS046</b>	4,670		187.93	
<b>Scenario 3</b>	<b>SPLT</b>	2,335.2			192.11

**Determination of Longer Time-Averaged Limits**

Clifty Creek requested a 720 operating hour rolling average emission limit that would demonstrate compliance among multiple units and model attainment of the 1-hour SO<sub>2</sub> standard. The reduction ratio used in order to demonstrate an equivalent 720 operating hour rolling average SO<sub>2</sub> mass emission limit based on the modeled 1-hour emission limit is discussed in Clifty Creek's Commissioner Order request and the assessment process for developing a longer term averaging period limit, dated January 22, 2016. The equivalent 720 operating hour site rolling average SO<sub>2</sub> emission limit calculated from the 4,670 lb/hr 1-hour modeled emission limit was determined to be 2,624.5 lbs of SO<sub>2</sub> /hr.

