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Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

MARY FALLIN  
Governor

January 11, 2017

**CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

Mr. Ron Curry, Regional Administrator (6RA)  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Subject: Oklahoma's SO<sub>2</sub> Air Quality Modeling Analyses or Federally Enforceable Limits Required by 40 CFR Part 51, Subpart BB, Data Requirements for Characterizing Air Quality for the Primary SO<sub>2</sub> NAAQS

Dear Administrator Curry:

The Department of Environmental Quality (DEQ), the agency responsible for implementation of the 2010 Sulfur Dioxide (SO<sub>2</sub>) National Ambient Air Quality Standards (NAAQS) in Oklahoma, previously submitted its list of sources to be characterized under the SO<sub>2</sub> Data Requirements Rule (DRR), 40 CFR Part 51, Subpart BB. In a letter dated March 21, 2016, U.S. Environmental Protection Agency (EPA) stated it had reviewed DEQ's letter, concurred with the list of ten (10) sources provided, and would not be adding other sources to the list at that time.

In a June 29, 2016 letter to EPA, DEQ indicated that it would characterize SO<sub>2</sub> concentrations for four (4) of the ten (10) sources through air quality modeling or federally enforceable emission limits. The purpose of this letter is to meet the January 13, 2017 obligation to submit modeling analyses that support DEQ's conclusion that the areas around these sources should be designated as unclassifiable/attainment for the 2010 SO<sub>2</sub> NAAQS and provide documentation for the source that has taken a federally enforceable emission limit of less than 2,000 tons per year (TPY) of SO<sub>2</sub>. DEQ's air quality characterization modeling protocol was also submitted with the June 29, 2016 letter.

The three (3) sources for which air quality was characterized, in accordance with the submitted protocol "Modeling Compliance with the 1-Hour SO<sub>2</sub> NAAQS" and EPA's draft Technical Assistance Document for SO<sub>2</sub> NAAQS Designations Modeling dated August 2016, are discussed



below. The modeling reports and supporting modeling files for the three (3) sources have been uploaded to the R6 Air Program-Oklahoma SharePoint site.

AES Shady Point – Cogeneration Plant The facility has installed an activated carbon dry sorbent injection system and increased the dry lime injection rate to comply with the Mercury and Air Toxics Standards (MATS), which is estimated to have reduced SO<sub>2</sub> emissions by 25%. These changes occurred after the drafting of the modeling protocol. As shown in the report in Attachment 1, total modeled SO<sub>2</sub> impacts are expected to be 62 ppb (162.7 µg/m<sup>3</sup>), which is in compliance with the 2010 1-hour SO<sub>2</sub> NAAQS of 75 ppb. A list of the files used for the site-specific modeling is provided in Attachment 2.

American Electric Power/Public Service of Oklahoma (AEP/PSO) – Northeastern Power Station The facility has installed an activated carbon dry sorbent injection system on Unit No. 3 and has shut down Unit No. 4 as of April 16, 2016. As shown in Attachment 3, total modeled SO<sub>2</sub> impacts using actual emissions are expected to be 56 ppb (146 µg/m<sup>3</sup>), which is in compliance with the 2010 1-hour SO<sub>2</sub> NAAQS of 75 ppb. An additional DEQ modeling analysis was conducted using current potential to emit (PTE) emissions as shown in Attachment 4. Using PTE emissions, total modeled SO<sub>2</sub> impacts are expected to be 43 ppb (112 µg/m<sup>3</sup>), which is also in compliance with the 2010 1-hour SO<sub>2</sub> NAAQS. Based on this information, DEQ does not believe additional annual modeling is required for PSO – Northeastern. A list of the files used for the site-specific modeling is provided in Attachment 5. Permit No. 2012-918-TVR2 (M-1) issued on August 17, 2016 includes the specific conditions for shutdown of Unit No. 4 and is provided in Attachment 6.

Continental Carbon – Ponca City Plant The facility was issued Construction Permit No. 2004-302-C (M-2) on April 25, 2016 to remove three (3) thermal oxidizers and replace them with two (2) clean gas and energy cogeneration units with dry scrubbers by April 2019. These changes will reduce the facility's PTE below 2,000 TPY, but not before January 13, 2017. As shown in Attachment 7, total modeled SO<sub>2</sub> impacts are expected to be 65 ppb (170.6 µg/m<sup>3</sup>), which is in compliance with the 2010 1-hour SO<sub>2</sub> NAAQS of 75 ppb. A list of the files used for the site-specific modeling is provided in Attachment 8.

The one (1) source that has taken a federally enforceable emission limit of less than 2,000 TPY of SO<sub>2</sub> is Holcim-Ada Plant. Construction Permit No. 98-087-C (M-10), shown in Attachment 9, was issued on December 12, 2016 and requires the new kiln to meet an SO<sub>2</sub> emission limit of 152.89 TPY. The old kilns were shut down as of December 1, 2016, as documented in Attachment 10.

DEQ also has three (3) ambient air quality monitors operational as of January 1, 2017, to address four (4) sites. EPA approved DEQ's selected location for Oxbow Calcining-Kremlin on

November 21, 2016. EPA approved the site location to monitor both OG&E–Muskogee Generating Station and Georgia-Pacific–Muskogee Mill on November 8, 2016. EPA approved the GRDA–Chouteau Coal Fired Complex monitoring site location on December 6, 2016. These monitors will be considered State or Local Air Monitoring Systems (SLAMS).

If you desire additional information, or you have any questions concerning this matter, please contact Cheryl E. Bradley, Data and Planning Manager, at 405-702-4157.

Sincerely,



Eddie Terrill, Director, Air Quality Division  
Oklahoma Department of Environmental Quality

cc: Michael Teague, Secretary of Energy and Environment  
Scott Thompson, Executive Director, Department of Environmental Quality  
Guy Donaldson, Chief, Air Planning Section, US EPA 6  
Carrie Paige, Air Planning Section, US EPA 6  
Dayana Medina, Air Planning Section, US EPA 6

#### Attachments

1. AES Shady Point Modeling Report
2. List of modeling files for AES Shady Point
3. PSO-Northeastern Modeling Report (actuals)
4. PSO-Northeastern Modeling Report (PTE)
5. List of modeling files for PSO–Northeastern
6. PSO-Northeastern Permit No. 2012-918-TVR2 (M-1)
7. Continental Carbon Modeling Report
8. List of modeling files for Continental Carbon
9. Holcim Construction Permit No. 98-087-C (M-10)
10. Holcim kiln shutdown letter dated January 3, 2017