



Division of Air Pollution Control Response to Comments

Rule: OAC Rules 3745-18-01, 3745-18-03, 3745-18-04, 3745-18-47, and 3745-18-49 SO₂ SIP Update

Agency Contact for this Package

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Ohio EPA held a public hearing on September 16, 2015 in Columbus, Ohio and a 30+ day proposed rule comment period ending September 16, 2015 regarding the above mentioned rules. This document summarizes the comments and questions received at the public hearing and during the associated comment period.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

Comment 1: The following are comments we have on the April 3, 2015 SO₂ nonattainment SIP submittal.

Muskingum River: Ohio did not address the contribution from Globe Metallurgical, Inc. (Globe) in its April 3, 2015 submittal, since the Muskingum River Power Plant had contributed 99% of the SO₂ emissions in the nonattainment area. The submittal does not provide a modeling analysis for the Muskingum River nonattainment area but instead analyzes the power plant's emissions and the monitored values and concludes that the closure of the Muskingum River Power Plant this June will bring the area into attainment. We agree that the power plant was likely to have been the main contributor to the monitored NAAQS violations in the area, but the submittal must also address other sources within the nonattainment area which could contribute to exceedances of the SO₂ NAAQS. Given the level of Globe's emissions (1200 tons per year) and the source's emission configuration, we believe that Globe could potentially cause or contribute to SO₂ NAAQS exceedances even without the power plant in operation. Ohio should address the Globe facility in its SIP, considering emission reductions and/or improvements to its emission venting.

Steubenville: Ohio used a weight of evidence approach to supplement modeling for the Cardinal plant in the Steubenville area, citing EPA's ozone/PM/haze guidance. This guidance does not strictly apply for SO₂. While we will consider all the arguments that Ohio presents to demonstrate that the area's emission limits will lead to attainment of the standards, the quality of the modeling analysis is the primary component. Citing vague "inconsistencies and inaccuracies," for example, is not an adequate justification for choosing not to rely on modeling for the southern portion of the nonattainment area. We recognize that the Cardinal plant's unusual emissions routing is difficult to characterize and anticipate discussing this analysis further.

Ohio used the Buoyant Line and Point Source model (BLP) to help characterize emissions from Mountain State Carbon in the Steubenville area. The method seems reasonable but appears to differ from the way EPA has included BLP in AERMOD. A formal alternative model justification may be necessary for this application. **(Mary Portanova, USEPA)**

Response 1:

The above comments from USEPA were received on September 2, 2015. The comments address Ohio EPA's Demonstration for Attainment of the 1-Hour Sulfur Dioxide Standard State Implementation Plan (SIP). The rules that are the subject of this comment period incorporate requirements that are the product of the technical analysis conducted in Ohio EPA's SIP but do not contain the specific elements for which USEPA is providing comment above. The comment period on the actual SIP document and analysis closed on July 9, 2015. However, Ohio EPA is incorporating these comments into this responsive summary although they are not directly relevant to the revisions in the proposed rulemaking itself. Ohio EPA is considering these comments prior to submitting a final revised SIP to USEPA.

The above comments will not result in revisions to the proposed revised rules.

Muskingum River: Ohio EPA's SIP uses a weight-of-evidence approach to show attainment within this area because it was determined modeling the shutdown of Muskingum River Power Plant would not be necessary (modeling zero emissions as an attainment strategy). Ohio EPA believes the shutdown (June 2015) of the Muskingum River Power Plant will provide for and ensure future attainment of the standard in this area.

Ohio EPA believes we have addressed other sources within the nonattainment area which could contribute to exceedances of the SO₂ NAAQS by determining actual emissions levels of those sources in the area do not warrant further consideration as a part of this analysis. USEPA specifically notes Globe. Globe's 2014 SO₂ emissions were 1,274

tons and Globe is the only remaining sources in the area. Under USEPA's Data Requirements Rule (DRR) (80 FR 51087), the source threshold for determining if a source should be subject to analysis is 2,000 tons per year. While the DRR is intended to address sources that are not in nonattainment areas, Ohio EPA believes it is a good guide to use under this particular circumstance; where the source responsible for nonattainment permanently shuts down. Ohio EPA does not believe Globe's emissions warrant analysis absent any combination of sources in close proximity that combined would exceed the 2,000 tons per year threshold. And this is not the case.

Further, USEPA's DRR allows sources (or combinations of) that exceed the 2,000 tons per year threshold to elect monitoring in lieu of modeling analysis to show if attainment is occurring. This area, and therefore Globe, is being monitored and Ohio EPA believes future design values will show attainment. In fact, a review of hourly monitoring data collected in 2015 (while Muskingum River Power Plant is shutdown) shows that out of 1,883 recorded hours of data the highest hourly concentration is 6 ppb. The average concentration for that data set is <1 ppb. Of 368 non-zero recorded hours of data the average concentration is 1.9 ppb. This is the same trend that was seen in the analysis of monitoring data for the second half of 2014 that was included in Ohio EPA's SIP.

Steubenville: Ohio EPA is open to further discussions regarding the analysis of Cardinal Power Plant. Ohio EPA believes in light of the unusual circumstances regarding Cardinal, Ohio EPA developed a robust weight-of-evidence technical analysis that supports our conclusion of future attainment for this area. Ohio EPA is also willing to discuss the need of a formal alternative model justification for the use of BLP.

Comment 2:

FirstEnergy hopes that Ohio EPA will revise the rules to reflect these comments so that the rules are technically sound and consistent with the law.

Ohio EPA has proposed to strike in its entirety Paragraph (G) from the Ohio Administrative Code 3745-18-49. This is incorrect. Page 24 of the April 3, 2015 State of Ohio Nonattainment Area State Implementation Plan and Demonstration of Attainment for 1-Hour SO₂ Nonattainment Areas indicates that Ohio EPA modeled attainment for Lake County ,, in part, by reducing, the currently permitted SO₂ rate of 7,473 lbs/hour for B001, B002, and B003 to 1,158.89 lbs/hour. However, this is not reflected in the rule. Ohio Administrative Code 3745-18-49(G) should read as follows:

The "Cleveland Electric Illuminating Company, Eastlake Plant" (OEPA ~~premise permit~~ number 0243160009) or any subsequent

owner or operator of the “Cleveland Electric Illuminating Company, Eastlake Plant”, 10 Erie Road, Willoughby, Ohio” shall not cause or permit the emission of sulfur dioxide from boiler numbers 1 through 35 (OEPA source numbers B001 through B005B003) to exceed a maximum of ~~5.64 pounds of sulfur dioxide per MMBtu actual heat input~~ 1,1589 lbs/hour from each boiler.

FirstEnergy requests that Ohio EPA make this change (or an equivalent change expressed in pounds of sulfur dioxide per MM Btu actual heat input) for these boilers to reflect the limit used to model attainment in Lake County. **(Brian Kolts, FirstEnergy)**

Response 2:

On March 31, 2015, FirstEnergy notified Ohio EPA of the permanent shutdown of boilers B001, B002 and B003, effective April 16, 2015. In the same letter, FirstEnergy expressed the desire to retain emissions credits resulting from the level that Ohio EPA modeled in its attainment strategy. Ohio EPA’s attainment demonstration modeling was due on April 4, 2015 and therefore, Ohio EPA retained the analysis that included Eastlake. However, in that attainment demonstration, Ohio EPA noted that “only those emission reductions Ohio EPA modeled as necessary to show attainment in this area are a part of Ohio’s strategy for attainment. The permanent shutdown notification for all units does not preclude consideration of emissions associated with the final attainment SO₂ rates (critical values) as surplus in this area with respect to the 2010 SO₂ standard.”

Ohio EPA routinely removes permanently shutdown facilities from the applicability of its regulations. Retaining requirements for permanently shutdown units/facilities in Ohio’s regulations would create unnecessarily complicated regulations. Removal of a shutdown facility does not preclude a source from retaining its ability to apply for emissions reduction credits (ERCs).

ERCs must be permanent, quantifiable, federally enforceable surplus reduction in air pollutant emissions that exceed the amount of reduction required under state or federal law, regulation, attainment demonstrations or other enforceable mechanisms.

Emission reductions are considered permanent if they are assured for the life of the corresponding ERC through an enforceable mechanism such as a permit condition or a *permanent shutdown*.

Some emission reductions may also be required to be made federally enforceable to become creditable. This would include reductions achieved from methods other than permanently shutting down an air contaminant source (e.g., synthetic minor restrictions). ERCs from permanently shutting down an air contaminant source

will be made federally enforceable at the time of use by Ohio EPA. However, Ohio EPA will require certification from a responsible official/authorized individual of the permanence of the shutdown or curtailment in order to participate in the program.

Emission reductions are considered quantifiable if the amount, rate and characteristics of the emission credit can be estimated through a reliable, reproducible method approved by Ohio EPA or U.S. EPA.

Emission reductions are considered surplus if they are included in the current emissions inventory and are not required by any local, state or federal law, regulation, emission limitation or compliance plan. This final provision would include reductions necessary to ensure compliance with SIP requirements. Ohio EPA's analysis as a part of this SIP determined the amount of SO₂ credits from permanent shutdown of the Eastlake plant that would be considered surplus with respect to the nonattainment area SO₂ SIP requirements. This analysis could occur at any point up to the point when a party wishes to use those ERCs in the future. The point in time the analysis occurs does not matter and removal of emissions units from the applicability of the SO₂ regulations does not affect the determination of surplus emissions in the future from a permanent shutdown.

For additional information on Ohio EPA's ERC program please visit http://www.epa.state.oh.us/dapc/ERC/general_info.aspx#verified.

The regulations in this chapter are intended to document limitations that are necessary for facilities operating in the state in order to ensure compliance with the SO₂ standards. The regulations are not intended to be a documentation of the full strategy or means (such as permanent shutdown of sources) that result in attainment. Further, the regulations are not intended to be a method for documenting what is considered surplus or available as ERCs. Ohio EPA believes it is in the best interest of clarity and consistent with the purpose of this chapter to continue to remove permanently shutdown sources from the requirements to comply with the regulations.

End of Response to Comments