



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 7**

11201 Renner Boulevard  
Lenexa, Kansas 66219

August 18, 2022

Mr. Stephen M. Hall  
Director  
Air Pollution Control Program  
Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, Missouri 65102-0176

Re: EPA Comments on Missouri State Implementation Plan Revision Addressing Interstate Transport for the 2015 Ozone Standard

Dear Mr. Hall:

The U.S. Environmental Protection Agency appreciates the opportunity to participate in the Missouri Department of Natural Resources' State Implementation Plan, or SIP, development process. Enclosed are the EPA's comments regarding the MoDNR's public noticed SIP revision titled "Supplement to the Interstate Transport Provisions for the 2015 Ozone Standard." This SIP submission seeks to revise Missouri's Good Neighbor SIP for the purpose of addressing the interstate transport or "good neighbor" requirement of the Clean Air Act, CAA, with respect to the 2015 ozone National Ambient Air Quality Standard, NAAQS<sup>1</sup>.

The EPA is committed to working with the MoDNR to ensure that the SIP submission contains the information and any necessary emissions controls required to meet the Clean Air Act requirements of Section 110(a)(2) and is protective of the 2015 Ozone NAAQS. We note that the intent of this letter is to provide constructive suggestions on how an approvable transport SIP submittal could be further developed by the state before submission to the EPA. Nothing in this letter should be construed as any final position or action by EPA with respect to this draft submittal.

Comments:

1. As part of its Step 2 analysis of EPA's 4-step Interstate Transport Framework, the MoDNR analyzed contributions to the four nonattainment/maintenance receptors that EPA's latest modeling showed contributions from Missouri above 1% of the standard or 0.70 ppb. This includes the Racine (Site ID 551010020), Kenosha-Chiwaukee (Site ID 550590019), and Kenosha-Water Tower (Site ID 550590025) receptors in Wisconsin and the Chicago-Evanston (Site ID 170317002) receptor in Illinois.

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<sup>1</sup> We view this as a separate submission from the prior submitted SIP revision submitted by Missouri in June of 2019 and anticipate acting on this SIP revision separately, should the state choose to submit this revision to EPA.



Missouri points to EPA's August 2018 memorandum regarding the potential use of an alternative 1 ppb threshold in lieu of the 1% threshold to identify linkages. They cite this with respect to the Racine, Wisconsin and the Chicago-Evanston, Illinois receptors. The MoDNR asserts that a 2 ppb threshold is appropriate for the Kenosha-Chiwaukee and Kenosha-Water Tower, Wisconsin sites. The state compares the percent of upwind emissions captured using the 1% threshold and compares that to the percent of emissions captured at alternative thresholds of 1 ppb or 2 ppb. The state also asserts that the primary contributors to the projected ozone concentrations at the monitor in Kenosha-Chiwaukee include emissions from Illinois, Indiana, and Wisconsin. The state notes that analyses performed by the Lake Michigan Air Directors Consortium, LADCO, also indicate that the ozone levels at the Wisconsin shoreline of Lake Michigan are heavily affected by the emissions from Illinois, Indiana, and Wisconsin.

The EPA reviewed our experience with the August 2018 memorandum regarding alternative thresholds at Step 2 in its proposed disapproval of Missouri's 2019 Good Neighbor SIP submission and discussed the type of analysis we expected states to perform to justify use of an alternative threshold. 87 FR 9533 (February 22, 2022). Our proposed disapproval notice stated that, based on experience, it may not be appropriate or practical to recognize alternative contribution thresholds at Step 2.

The EPA anticipates that it would likely not find the state's use of alternative thresholds in its draft supplemental SIP submittal sufficient or justified for the four receptors that Missouri is linked to above the 1% threshold. As noted in our proposed disapproval action for MO, the use of alternative thresholds results in reducing the amount of cumulative upwind state emissions that would be captured under the transport program. In the MoDNR analysis, for example, just going from a 1 ppb threshold to a 2 ppb threshold reduces the amount of upwind-state emissions captured by 16.7% at the Kenosha-Water Tower receptor. We anticipate that we would likely disagree with MoDNR's proposed assertion that the loss in capture of these contributions is acceptable at the receptors impacted by Missouri.

2. Under EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. This assessment would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions on the downwind receptors to which a state is linked. States linked must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment.

The EPA supports the MoDNR conducting an analysis at Step 3 of the 4-step interstate transport framework, however there are several limitations to the state's analysis that call into question its approvability. First, the analysis is limited exclusively to reductions that are possible for the 2023 ozone season, which is the last full ozone season prior to the August 3, 2024, attainment date for Moderate nonattainment areas under the 2015 ozone NAAQS. However, EPA's most recent modeling shows that the same four receptors Missouri is linked to in 2023 (identified in Comment 1 above) are projected to continue to violate the 2015 ozone NAAQS in 2026, and Missouri is projected to continue to contribute more than 0.7 ppb of ozone concentrations to these receptors. The state does not appear to have conducted a complete Step 3 analysis that included assessing emission reduction opportunities that may be needed to eliminate significant contribution, even though they

cannot be implemented by the next attainment date. This appears not to be a complete analysis of potential emissions reduction opportunities.

Further, the MoDNR only evaluated potential emissions reduction for a subset of power plant sources that currently have selective catalytic reduction (SCR) control devices rather than assessing a broader set of anthropogenic sources of ozone-precursor emissions in the state. This too appears not to be a complete analysis of potential emissions reduction opportunities. The EPA encourages the state to assess sources beyond a subset of electricity generating units (EGUs) in its Step 3 analysis to support a conclusion that controls identified at Step 4 constitute a complete elimination of significant contribution or interference with maintenance. See CAA section 110(a)(2)(D)(i)(I). In Wisconsin, EPA's conceded failure in the CSAPR Update to analyze the full range of potential control strategies from EGUs and other, non-EGU sources, even though upwind contribution to air quality problems remained, was why the D.C. Circuit determined the rule was unlawfully partial in nature. Wisconsin, 938 F.3d 303, 318-20 (D.C. Cir. 2019).

3. In its Step 3 evaluation of emissions controls and reductions, the MoDNR proposed, via consent agreements, an optimization of SCR controls and establishes rate limits of 0.12 lb/mmbtu of NO<sub>x</sub> at 6 units over 3 facilities (AECI New Madrid and Thomas Hill, City Utilities John Twitty). While the emission reductions associated with the limits would lead to a reduction in recent year(s) actual emissions, the proposed rates are substantially above the 0.08 lbs/mmbtu rate that the EPA determined is generally achievable for EGU units with SCR in the Revised CSAPR Update rule for 2008 ozone NAAQS Transport (86 FR 23054), and which the EPA also proposed in the FIPs for the 2015 ozone NAAQS. It would be helpful if the MoDNR provided an explanation as to why the proposed rate of 0.12 lbs/mmbtu is not at least as stringent, or more stringent, than the rates identified as achievable in the Revised CSAPR Update. In addition, it would be further supportive if the MoDNR provided an explanation as to why less stringent limits are appropriate for a more stringent ozone NAAQS.
4. The multifactor Step 3 assessment would typically include information on the downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required. As a part of this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation on these downwind impacts. While MoDNR's Step 3 assessment provides information and an evaluation on the emissions for a subset of the state's sources, the state's assessment does not include a technical demonstration on how its chosen emissions reductions impact the state's ozone contributions on downwind receptors (including when viewed in conjunction with comparable reductions that could be assumed from such stringency across other linked upwind states). In order to sufficiently address the multifactor assessment of Step 3, the EPA recommends the MoDNR provide a technical demonstration (e.g., through use of modeling) that evaluates the impacts of emissions reductions on the state's downwind linkages, especially when considering proposed rate limits that appear to be set much higher than achievable and only cover a small subset of Missouri's anthropogenic ozone-precursor emissions sources.

The EPA has identified several concerns related to MoDNR's Step 4 analysis and the proposed consent agreements included in the supplement.

5. The consent agreements provide exclusions for operations without SCR control equipment running for a period of up to 3% of the ozone season. The ozone season (May 1 through September 30) period has 153 days, and 3% of this period is over 110 hours without SCR operation. Each hour is

important for ozone formation and the ozone NAAQS, and these hours have the potential to influence downwind ozone. The MoDNR should consider limiting exclusions to a more reasonable time period, one that excludes operation of control for the sole purpose of avoiding costs of control operation for a period of time.

6. The limits that the MoDNR is proposing for each of the six units, in addition to being higher than generally achievable rates with SCR operation as discussed in comment 3 above, are also being averaged over the entire 153-day period and have no restrictions on either no operation of an SCR or minimal operation of the SCR to meet the 153-day average rate of 0.12 lbs/mmbtu. Ozone nonattainment and maintenance is highly dependent on the form of the NAAQS and daily, even hourly, emissions can matter in transport. The MoDNR should consider not only strengthening these limits but should also consider a shorter averaging period especially if the higher limit as proposed is retained.
7. The consent agreements are unclear as to whether the requirement to run the SCR equipment for 97% of the ozone season excludes the exempted and excluded periods outlined in item C. It appears that these exempted hours in section "C" are in addition to the allowed 3% of no SCR operation and, as worded, could allow for an extended period of no control operation if the source claims a large number of upsets. The agreements should make the 3% exempted SCR operation clear on whether it excludes the Section C conditions. It is also not clear why the 3% no SCR operation clause is needed when other exemptions and exclusions are provided to the facilities for both rate limit calculations and general operations when the SCR could generally not be expected to run. The MoDNR should offer the reasoning for the exclusion of operation beyond startup, shutdown and malfunction, SSM, conditions.
8. The consent agreements state when upset conditions occur and necessitate a shutdown or lower efficiency operating status for the SCR for more than ten (10) percent of the operating hours during the regulatory ozone season (May 1 through September 30) in a calendar year these hours can be excluded from the remaining annual calculation to meet the 0.12 bs/mmbtu rate limit. This effectively excludes a large number of hours from any limit at all and it is unclear how the facility would define an upset that leads to lower efficiency, making the practical enforceability of this condition questionable.
9. The penalty fees are specified at the facility level and not at the unit level for those sources with more than one unit. Penalties should be determined at the unit level because compliance is determined at the unit level. In addition, currently the maximum penalty at a facility is \$580,000 which is a small amount compared to operating controls or even purchasing allowances. For example, using MoDNR's estimated reductions at New Madrid of 4,973 tons, if AECl opted to pay the penalty instead of running their controls, this would effectively cost the company \$117/ton at the maximum penalty, likely well below the emission reductions costs associated with running their controls. Missouri should ensure a facility is deterred from just paying the penalty for not operating controls consistent with the agreement. This penalty structure effectively offers no deterrence for meeting the limits the 1st 30 days at only \$1,000 per day and offers minimal deterrence for the remainder of the ozone season. Missouri should also consider removing the clause "The Department has the discretion to waive or defer any stipulated penalties" as it is unclear how or under what circumstances this provision would be exercised and raises legal concerns as to the enforceability of the requirements.

10. The consent agreements state that they “shall be terminated upon mutual written agreement of [listed facility] and the Department.” It is not clear that the consent agreements will not be terminated following approval of the SIP. Additionally, the EPA notes that, upon approval of the consent agreements into the SIP, the requirements of the consent agreements would be permanent and federally enforceable and would remain applicable until Missouri submits a SIP revision and the EPA approves that revision. Considering this, the EPA requests further clarification around the terms contained in the consent agreements permitting termination.
11. The EPA finds certain language in the consent agreements to be unclear. Specifically, the clauses that detail when the agreements will become permanent and enforceable and the termination clauses. As discussed below, the EPA suggests Missouri clarify this language in all the consent agreements to ensure the regulated industry, the EPA, and the public fully understand the requirements.
  - a. It is not clear what action would trigger termination of the consent agreements for two reasons. First, it is unclear whether the termination conditions in Paragraph 13 apply to EPA action on the 2019 SIP submittal, EPA action on this draft SIP revision, or EPA action on both. For example, in the event EPA finalized a full disapproval of MoDNR’s 2019 SIP submission, it is not clear whether this would trigger termination of the consent agreements, regardless of EPA action on this draft SIP revision, once submitted to the EPA.

Second, it is unclear whether the consent agreements would become enforceable under alternative EPA actions. The EPA requests clarification around how the enforceability of the consent agreements will be impacted by: (a) finalizing disapproval of MoDNR’s original SIP submission and separately acting on MoDNR’s supplemental submission, (b) a partial approval/disapproval action, where the EPA acts on the supplemental SIP submission at the same time as the original SIP submission, (c) a conditional approval action, where the EPA acts on the supplemental SIP submission at the same time as the original SIP submission, (d) a limited approval/limited disapproval action, where the EPA acts on the supplemental SIP submission at the same time as the original SIP submission, or (e) a combination of the above actions (ex. a conditional limited approval/disapproval action).
  - b. Additionally, the supplement on page 19 states that Missouri has exceeded its NO<sub>x</sub> ozone level assurances in 2020 and 2021 because of the lack of enforceable parameters for the SCR control equipment. It would be helpful if, in the absence of the limits identified at Step 4 as a result of termination, the state provided some assurance that the state and its sources would meet their NO<sub>x</sub> ozone assurance levels in future years.
12. The consent agreements indicate that they are not effective until 180 days after EPA approval of the SIP submission and consent agreements. It would be helpful if the state explained how allowance of 180 days following EPA action achieves necessary reductions “as expeditiously as practicable but not later than” the next applicable attainment date. CAA section 181(a); 40 CFR 51.1303; 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018); see *Wisconsin v. EPA*, 938 F.3d 303 (D.C. Cir. 2019). As mentioned previously, the last full ozone season prior to the August 3, 2024, attainment date for Moderate nonattainment areas under the 2015 ozone NAAQS is in 2023. According to CAA section 110(k), the EPA has 12 months to act on a SIP submission following a determination of completeness (either through a finding of completeness or completeness by operation of the law six months following SIP submission). Additionally, the EPA provides for public participation through the standard notice-comment procedures when acting on SIP submissions. It is unclear how the state

intends for the emissions control measures identified at Step 4 as necessary to “prohibit[] . . . any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will contribute significantly to nonattainment in, or interfere with maintenance by, any other state” to be implemented “as expeditiously as practicable but not later than” the next applicable attainment date in the downwind areas in light of the 180 day waiting period between EPA approval, the timing of which would be uncertain, and the effectiveness of the consent agreements. CAA section 110(a)(2)(D)(i)(I); CAA section 181(a)(1) 40 CFR 51.1303; 83 FR 25776.

We appreciate the opportunity to provide comments on Missouri’s SIP revision “Supplement to the 2015 Ozone Transport SIP” and appreciate the time Missouri’s staff have invested in the SIP revision. We look forward to and welcome further engagement and discussion. Please feel free to reach out to me directly or to William Stone at (913) 551-7714.

Sincerely,

**DANA  
SKELLEY**

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DANA SKELLEY  
Date: 2022.08.18  
16:23:37 -05'00'

Dana Skelley  
Director  
Air and Radiation Division