

APPENDIX E

FEDERAL LAND MANAGER COMMENTS
& INDIANA'S RESPONSE

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THE UNITED STATES FOREST SERVICE COMMENTS

Technical Comments

The Forest Service continues to acknowledge the significant emissions reductions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) that have occurred in Indiana since the first round of Regional Haze planning. These reductions will continue to lead to improved visibility in our Class I areas. Overall, our comments on the draft Regional Haze Progress Report remain consistent with comments we provided during our review of the second round Regional Haze State Implementation Plan (RH SIP). A summary of those comments that specifically relate to the Progress Report are below.

Visibility Impacts

In the Guidance from August 20, 2019, the EPA states,

“...because regional haze results from a multitude of sources over a broad geographic area, a measure may be necessary for reasonable progress even if that measure in isolation does not result in perceptible visibility improvement.”

Additionally, in the Clarification Memo from July 8, 2021, the EPA states,

“However, a state should generally not reject cost-effective and otherwise reasonable controls merely because there have been emission reductions since the first planning period owing to other ongoing air pollution control programs or merely because visibility is otherwise projected to improve at Class I areas.”

However, in the Progress Report, Indiana attempts to use the argument that visibility is improving, therefore the reasonable progress goals will be met, and so the second round SIP is sufficient as is. We do not believe this is a valid argument given the EPA statements above. This is particularly relevant given the lack of analysis on Electric Generating Units (EGUs) in both the second planning period SIP and the Progress Report.

Widespread emissions controls, particularly for SO₂ and NO_x, are essential for making reasonable progress at Class I areas both near to, and more distant from, emissions sources, such as Dolly Sods and Otter Creek. Further, small visibility improvements, even those that may be imperceptible by themselves, are essential for making progress towards the national goal of restoring natural conditions at Class I areas by 2064.

We recommend Indiana re-evaluate whether reasonable progress is being made and consider the implementation of emission limits and/or upgraded/new control measures, particularly on EGUs, and especially those with sister units that already have control technologies.

Enforceability

On page 30 of the Progress Report, it is mentioned that there will be numerous shutdowns and conversions by 2028. We would like to ensure that these shutdowns and conversions are enforceable. Further, in Appendix A, shutdowns are mentioned in the Comments column, but it is unclear whether they are enforceable or not. If they are not, we would like for them to be enforceable. For conversions, permits related to conversions are mentioned for some but not all sources. Again, we would like to see these conversions made enforceable.

Other Recommendations

Our other comments are for clarification rather than specific to progress made on visibility improvement.

On Page 10, above Figure 1.1, we recommend referring to CENSARA as opposed to CENRAP, as this is more consistent with the figure.

On Page 29, in the Nitrogen Oxides section, the first sentence references Graph 2.3. We believe this should be referencing Graph 2.4, as it is the NO_x-specific graph. There is a possibility that both the Sulfur Dioxide section and the Nitrogen Oxide section are referring to Graph 2.5. We recommend taking another look at this section to ensure the correct graphs are being referenced for clarity.

INDIANA'S RESPONSE

IDEM appreciates the U.S. Forest Service's comments, and our responses are also consistent with the second round RH SIP.

During the time frame from 2018 - 2022, actual SO₂ emissions reported from all point sources in the state decreased nearly 39%, while NO_x emissions decreased by 30%. Total modeled emissions in 2022 for SO₂ have decreased 39,552 tons and have achieved ~89% of the 2028 goal. Total modeled emissions in 2022 for NO_x have decreased 95,069 tons and have achieved ~73% of the 2028 goal. Indiana's contributions to visibility impairment in Class I areas in other states have significantly decreased and surpassed improvements predicted in 2028 by the photochemical modeling that used 2016 as a base year in Indiana's 2021 RH SIP for the second implementation period. IDEM prefers to gauge the visibility improvement towards reasonable progress for a welfare standard. As stated throughout Indiana's RH SIP and progress report, the state will continue to rely on residual emission reductions in precursor pollutants from state and federal rulemakings that are based on health-based standards.

The RH Rule allows states to determine how to show progress with regulation of industrial sources emissions and emission control strategies. This process, in general, is purposefully intended to give states discretion and flexibility in their statutory and

regulatory requirements. It is also intended for states to leverage emission reductions achieved through other CAA programs that will further improve visibility in protected areas. Reasonable progress towards natural visibility conditions is addressed in the RH Rule (Federal Register Vol 64, No. 126, Pg. 35726): “Since the national goal is expressed in terms of air quality (i.e., visibility) rather than emissions, we (EPA) believe that it is very important to require the quantitative tracking of visibility impairment as an integral element in measuring reasonable progress.” On page 35727 of the RH rule, “Tracking “reasonable progress” should involve the tracking of both emissions and visibility improvement”. IDEM has demonstrated the decrease of both emissions and visibility impairment by showing significant visibility improvement in Class I areas. The emissions analyses, review of emission controls, current and expected retirements for coal-fired boilers with more renewable energy being utilized for future power generation, and modeled visibility impacts adequately address Indiana’s overall visibility impacts.

IDEM has determined existing emission controls are adequate to address regional haze for sources throughout the state based on current “on-the-books” regulatory measures for the second implementation period. Both factors (emissions and visibility impairment) are more than adequately addressed in Indiana’s EGU reasonable progress analysis with future emission reductions anticipated. As stated in Indiana’s second round RH SIP, EGUs will be adequately addressed during the third round RH SIP implementation period. These reductions are evidence towards the realization of meeting natural visibility goals by 2064 or sooner.

Visibility Impacts and Enforceability

Please reference Appendix U

https://www.in.gov/idem/sips/files/regional_haze_2021_apndx_r-x.zip, under the Indiana Regional Haze (RH) State Implementation Plan (SIP) for the Second Implementation Period (December 2021) at [IDEM: State Implementation Plans: Regional Haze](#).

Other Recommendations

References for CENRAP were updated to CENSARA.

The references to Graphs 2.3 and 2.5 were remedied with suggestions from U.S. EPA. The Actual (Reported) SO₂ and NO_x Emissions from Point Sources in Indiana, 2016-2022 are now combined in Table 2.3 and Graph 2.2.