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U.S. Environmental Protection Agency
EPA Docket Center
Docket ID Number: Docket ID No. EPA-HQ-OAR-2015-0072
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (Docket ID No. EPA-HQ-OAR-2015-0072).

To whom it may concern:

The Arizona Department of Environmental Quality (ADEQ) appreciates the opportunity to provide comments on the United States Environmental Protection Agency's (EPA) proposed rulemaking "Reconsideration of the National Ambient Air Quality Standards for Particulate Matter"¹ (PM NAAQS).

ADEQ was established under the Environmental Quality Act of 1986 by the Arizona State Legislature as the state's cabinet-level environmental agency. ADEQ carries out several core functions including: planning, permitting, compliance, management, monitoring, assessments, cleanups, and outreach. ADEQ's mission is to protect and enhance public health and the environment.

This comment letter: 1) briefly describes the background of the proposed rule; 2) addresses ADEQ's monitoring concerns; and 3) requests EPA consider factors that exist outside of state and local air agency control.

I. Background

On December 18, 2020, EPA issued a final rule retaining the existing PM NAAQS.² In June 2021, EPA announced it would reconsider the December 2020 decision.³

On January 27, 2023, EPA's proposed reconsideration of the PM NAAQS was published in the Federal Register. In its proposed rule, EPA proposes to reduce the PM_{2.5} annual standard from 12 micrograms

¹ 88 FR 5,558 (Jan. 27, 2023).

² 85 FR 82,684 (Dec. 18, 2020).

³ *Supra* note 1 at 5,560.

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per cubic meter ($\mu\text{g}/\text{m}^3$) to within a range of 9 – 10 $\mu\text{g}/\text{m}^3$. Additionally, EPA proposed to retain the current daily NAAQS for $\text{PM}_{2.5}$ and PM_{10} , as well as the secondary PM NAAQS. Also, EPA seeks comment on an alternative annual standard levels down to 8 $\mu\text{g}/\text{m}^3$ and up to 11 $\mu\text{g}/\text{m}^3$ and other ranges for the daily and secondary NAAQS.⁴ EPA also proposed revisions to other aspects related to the PM NAAQS including monitoring requirements for the PM NAAQS.⁵

II. Monitoring

This section presents ADEQ's comments regarding the monitoring aspects of EPA's proposed rule. This section will address: 1) hourly data completeness requirements for PM averages; 2) EPA should clarify that the Ambient Air Protocol Gas Verification Program and EPA Protocol Gas standards are not applicable to $\text{PM}_{2.5}$; 3) ADEQ's support for the updated bias calculation; 4) EPA's proposal references a table that does not appear in the current rules; and 5) ADEQ's supports of the proposed Calibration of PM Federal Equivalent Method.

a. EPA should add hourly data completeness requirements for PM averages.

Regarding EPA's proposal clarifying daily validity requirements for continuous monitors, ADEQ suggests adding hourly completeness requirements in addition to maintaining the practice of considering daily averages to be valid if at least 75% of the hourly averages are available.⁶ Hourly completeness requirements are needed in the case of partial hour data collection in support of the daily 75% requirement. Hourly completeness requirements exist in regulation for gaseous air pollutants, such as ozone.

b. EPA should clarify proposals that are not applicable to $\text{PM}_{2.5}$.

While ADEQ agrees with the proposals for changes to the Ambient Air Protocol Gas Verification Program and EPA Protocol Gas standards,⁷ they are not applicable to the $\text{PM}_{2.5}$ rulemaking. EPA should continue this practice of making more general proposals in each of its proposed rule changes, but identify these other changes in future proposals. Continuous improvement of regulations is encouraged to ensure consistent data quality nationwide.

c. ADEQ supports the proposal for the updated Bias Calculation.

ADEQ is in support of the proposal for the updated bias calculation.⁸ ADEQ has historically been unable to meet this uncertainty measurement due to low PM values. This change will improve the uncertainty measurement and help make it more attainable for ADEQ.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.* at 5,663.

⁷ *Id.* at 5,665.

⁸ *Id.* at 5,666.

d. Section VII, C, 5.b of EPA's proposed rule contains a proposal for Table E-3, which does not exist in current regulations.

EPA proposes to amend 40 CFR Part 58, Appendix E, Tables E-1, E-2, and E-3 to communicate that distance measurements will be rounded to retain at least two significant figures.⁹ However, ADEQ notes that in the current regulations there is no Table E-3. As currently promulgated, Appendix E contains Tables E-1, E-2, and E-4. Table 3 was removed in 2006.¹⁰

e. ADEQ supports the proposal for Calibration of PM Federal Equivalent Methods.

Arizona's unique environment creates particulate matter air pollution that is unique to other locations throughout the Nation. By allowing PM methods to be calibrated will ensure that measurements are accurate, especially in areas with Design Values close to the NAAQS.¹¹ There are known biases in some equivalent methods and this will ensure that these biases are minimalized.

III. EPA should consider air quality issues that are outside of State and local agency control.

ADEQ urges EPA to consider the challenges, especially in Southwestern states, to achieve the NAAQS that are outside of air agencies' control. Specifically, ADEQ is concerned about two potential issues: exceptional events due to wildfire and international transport.

a. EPA should streamline the exceptional event demonstration process for wildfires.

As a western state, Arizona is concerned about the impact of wildfire on air quality. Due to climate change creating warmer and drier than average Arizona, along with other western states, is experiencing an increase in severe wildfires. As a result, it is a priority to reduce the threat of wildfire by support. However, wildfires continue to present a significant challenge to air quality in the western U.S., among other issues.

Therefore, ADEQ requests that EPA consider additional methods to streamline exceptional event demonstrations related to wildfire events. ADEQ's experience submitting exceptional event demonstrations is the current approach is resource and time intensive process for both states and EPA. With a lowered annual PM_{2.5} standard, ADEQ believes that it is reasonable to conclude that there will be more regulatory significant impacts on air quality data from wildfires than at the current standard. ADEQ anticipates that there may be an increased need for states to submit additional exceptional event demonstrations. Therefore, ADEQ believes it makes sense for EPA to streamline wildfire exceptional event demonstrations to prepare for the potential increase in such demonstrations.

b. EPA should consider the potential challenges associated with international transport of PM_{2.5}.

⁹ *Id.* at 5,676.

¹⁰ See 71 FR 61,236 (Oct. 17, 2006).

¹¹ *Supra* note 1 at 5,670.

ADEQ is concerned about the impact of a changed PM_{2.5} NAAQS on border communities. Specifically, ADEQ has experience dealing with such border areas impacted by international air pollution. In 2012, EPA approved ADEQ's PM₁₀ moderate area plan for the Nogales, AZ nonattainment area (NAA). This approval included ADEQ's CAA § 179B demonstration that the Nogales NAA is attaining the PM₁₀ NAAQS but for international emissions sources in Nogales, Mexico.¹² ADEQ is concerned that if the NAAQS is lowered some areas along the border, including Nogales, could face challenges in meeting the new standard.

As an example, ADEQ has addressed PM₁₀ pollution in the Nogales area previously. In November 2009 the Nogales area was designated as nonattainment for the 24-hour standard for PM_{2.5}.¹³ On April 13, 2021, ADEQ submitted a maintenance plan and re-designation request for the Nogales, AZ 2006 PM_{2.5} NAAQS NAA. On August 15, 2022, EPA issued a final rule approving ADEQ's maintenance plan and re-designation request.¹⁴ As part of the approved maintenance plan, ADEQ referenced a study in Nogales, Sonora conducted by the University of Arizona (U of A) that looked at the reasons for small-scale burning and to develop mechanisms to reduce burning within Nogales, Sonora.¹⁵ This study found that people in Nogales, Sonora generally burn for management of solid waste, cooking, and/or home heating.¹⁶ Factors that influence burning include location of neighborhood, age of neighborhood, and the reliability and/or availability of garbage collection.¹⁷ Study participants indicated that burning was conducted in order to address issues of lack of garbage collection and as an alternative or supplement to other sources of fuel used in cookstoves and heaters.¹⁸ It was also found that household income levels affected the levels and frequency of burning, specifically wood, which was likely due to the financial impact of household resources to buy alternative fuels.¹⁹

The purpose of the U of A study was to develop educational mechanisms to help control small-scale burning in Nogales, Sonora and was not intended to gather concrete data regarding burning.²⁰ Therefore the commentary above is only intended to illustrate the potential for burning to affect air quality in Ambos Nogales. The 2006 PM_{2.5} NAAQS revised the 24-hour PM_{2.5} standard to the 35 µg/m³ and retained the annual 15 µg/m³ standard (which was later reduced to 12 µg/m³ in 2012²¹).²² ADEQ is concerned that the final standard selected by EPA could be more sensitive to international transport, especially for border communities.

¹² 77 FR 58,962 (Sept. 25, 2012).

¹³ 74 FR 58,688 (Nov. 13, 2009).

¹⁴ 87 FR 49,997 (Aug. 15, 2022).

¹⁵ Bureau of Applied Anthropology, University of Arizona. (2007) (Updated 2008). *Evaluation of Small Scale Burning of Waste and Wood in Nogales, Sonora – Final Report*, available at:

https://legacy.azdeq.gov/obep/download/small_scale.pdf.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ 78 FR 3,086 (Jan. 15, 2013).

²² 71 FR 61,144 (Oct. 17, 2006).

Therefore, ADEQ requests that EPA address how lowering the PM_{2.5} NAAQS could potentially impact areas affected by international transport of PM_{2.5} air pollution. Additionally, ADEQ requests EPA provide guidance on areas that could be impacted by international transporting of PM_{2.5}, international pollution might impact the area that is outside of the control of the local air agency could impact the economic growth of the area.

IV. Conclusion

ADEQ appreciates the opportunity to provide these comments on EPA's proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter. If you have any questions, please contact me at 602-771-4684 or czecholinski.daniel@azdeq.gov. Thank you for your consideration of ADEQ's comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Czecholinski', with a stylized flourish at the end.

Daniel Czecholinski
Air Quality Division Director