

**Questions and Answers from EPA's February 2024 Webinars Titled:
*Informational Webinars on PM_{2.5} Designations and Implementation Resources*¹**

November 1, 2024

On February 7, 2024, the Environmental Protection Agency (EPA) promulgated a revised primary annual fine particle (PM_{2.5}) NAAQS, strengthening the standard from 12.0 micrograms per cubic meter (µg/m³) to 9.0 µg/m³. The EPA revised the primary annual PM_{2.5} standard based on an integrated assessment of an extensive body of new scientific evidence, which strengthens the EPA's body of knowledge regarding PM_{2.5}-related health effects. As a result of this NAAQS revision, the Clean Air Act (CAA) section 107(d) requires that the EPA designate all parts of the country with respect to the revised primary standard. This process begins with states and Tribal air agencies submitting area designations recommendations to the EPA no later than one year after the NAAQS is revised.

On February 21 and 22, 2024, EPA hosted two informational webinars that included an overview of the PM_{2.5} Designations Memorandum, a demonstration of the PM_{2.5} Designations Mapping Tool, and an opportunity for participants to ask questions. The following questions were asked during those webinars and here EPA is providing a written response.

¹ <https://www.epa.gov/particle-pollution-designations/informational-webinars-pm25-designations-and-implementation>

Table of Contents

General:

1. How are the designations dates determined? (Page 4)
2. Can the effective date of the designations be extended so that EPA can consider more recent air quality data (i.e., if states certify 2025 air quality data early)? (Page 4)
3. Will the air agency recommendations and the EPA's final initial area designations be based on the same set of data? (Page 4)
4. What are the requirements if an area is designated "unclassifiable?" (Page 4)
5. How can participating in the PM Advance Program help areas that are close to attainment, attain the standard prior to designations? (Page 5)

Monitoring:

6. Are PM2.5 monitoring data from near-road sites applicable to the PM2.5 annual NAAQS? (Page 5)
7. How can data from non-regulatory monitors/secondary data be used in designation decisions? (Page 5)

Exceptional Events and Designations:

8. What are the steps necessary for certifying 2023 exceptional events data before air agencies can use it for design value purposes? Do air agencies need to certify the data at the initial notification stage? (Page 5)
9. Will states have an opportunity to submit exceptional events demonstrations for 2023 data after the 2024 data is available? This would be relevant if 2021-2023 design values meet the NAAQS but 2022-2024 design values do not. (Page 6)
10. Many of our design values will be influenced by exceptional events. As we work through the exceptional events process, when will that be reflected in the EPA's Air Quality System (AQS)? (Page 6)
11. Concerning designations recommendations, for 2021 exceptional events, does the EPA require some type of write-up or just a list of dates/monitors? (Page 7)
12. Are resources being dedicated at the regional level to act on submitted exceptional events? Especially in the western regions? (Page 7)
13. States will submit 2022 and 2023 EE demos by February 7th, 2025, based on 2021-2023 design value (DV) regulatory significance for their initial area designation recommendations. Can the EPA concur on 2022 and 2023 EE demos based on the 2021-2023 DV regulatory significance or only on the 2022-2024 DV, for which the EPA makes final area designations? (Page 7)

Nonattainment Area Analyses and Boundary Determinations

14. How does the EPA determine the boundaries for a nonattainment area? (Page 7)
15. How do air agencies address potential multi-state nonattainment areas? (Page 8)
16. If the EPA disagrees with a state's recommendation for the boundary of a nonattainment area or the status of a county, what is the process for dealing with the conflict? (Page 9)

Five Factor Analysis

17. What is a five-factor analysis? (Page 9)
18. Will these five factors be combined to develop ranking metrics? (Page 9)
19. Has the EPA decided on the inventory base year? (Page 9)

Mapping Tool

20. Will there be an option in the future to change the order of the layers? (Page 10)
21. Will the tool have smaller areas than the counties such as townships? (Page 10)
22. Please clarify what data is used as the underlying data for the mapping tool. (Draft 2022 EMP data or 2020 NEI data?) (Page 10)
23. Will there be any information for counties close to international borders? (Page 10)
24. Will the tool exclude ambient monitoring data that is not comparable to the annual PM2.5 NAAQS (e.g., source-oriented sites)? (Page 10)

Environmental Justice

25. How does the EPA plan to address Environmental Justice in the initial area designations process? (Page 10)

General

1. Question: How are the designations dates determined?

Answer: Pursuant to CAA section 107(d), the EPA must complete final initial area designations within 2 years of promulgation of a new or revised NAAQS unless the Administrator has insufficient information to finalize designations in that 2-year time frame. In such circumstances, the EPA may take up to 1 additional year to issue final initial area designations.² The EPA has held that “promulgation” means the signature and widespread dissemination of a final rulemaking. The 2024 PM_{2.5} NAAQS was promulgated on February 7, 2024. EPA’s *Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard Memorandum* (“PM Designations Memorandum”) identifies February 6, 2026, as the anticipated date for final initial area designations for the revised PM_{2.5} NAAQS.³

2. Question: Can the effective date of the designations be extended so that EPA can consider more recent air quality data (i.e., if states certify 2025 air quality data early)?

Answer: Pursuant to CAA section 107(d), the EPA must complete final initial area designations within 2 years of promulgation of a new or revised NAAQS unless the Administrator has insufficient information to finalize designations in that 2-year time frame. In such circumstances, the EPA may take up to 1 additional year to issue final initial area designations. For the final initial area designations for the 2012 PM_{2.5} NAAQS, the EPA finalized an effective date of 90 days from the date of publication in the *Federal Register*.⁴

3. Question: Will the air agency recommendations and the EPA’s final initial area designations be based on the same set of air quality data?

Answer: No, that is not likely. The EPA uses the most recent 3 years of certified air quality data for final designations. It is typical that in following a 2-year designations process, state and Tribal designations recommendations are based on one set of data years while the EPA’s intended and final initial area designations decisions are based on an overlapping, but not identical, set of data years. This is because the most recent 3 years of certified air quality data used for final initial area designations decisions will include 1 year of data that is not yet fully available while states and Tribes are developing their designations recommendations.

4. Question: What are the requirements if an area is designated “unclassifiable?”

Answer: There are steps states can take to ensure air quality is adequately characterized in the area, so that the area can be redesignated to either attainment or nonattainment based on sufficient information. Until sufficient information is available, there are no additional air quality planning or emissions control obligations that the state is responsible for.

² CAA section 107(d)(1)(B)(i)

³ *Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard Memorandum* (February 7, 2024)

⁴ 80 FR 2206, January 15, 2015

5. **Question:** How can participating in the PM Advance Program help areas that are close to attainment, attain the standard prior to designations?

Answer: At this point, given the designations timeline, areas that are exploring options to obtain an attainment designation should probably focus on their air quality data and reducing emissions as soon as possible. The EPA uses the most recent 3 years of certified air quality data for final designations. The Advance Program supports states, Tribes and local governments that want to take proactive steps to keep their air clean by promoting local actions to reduce ozone and/or fine particle pollution. One of the key aspects of the program consists of monthly Advance Partner meetings that highlight the latest EPA tools and resources. The Advance Partner meetings also provide a platform for sharing lessons learned and a venue for networking. Another important resource is Menu of Control Measures (MCM), which provides state, local and Tribal air agencies with information on existing emissions reduction measures, as well as relevant information concerning the efficiency and cost-effectiveness of the measures. The MCM includes information on measures for large point sources of emissions, as well as some information on measures for nonpoint sources of emissions. State, local, and Tribal agencies will be able to use this information in developing emissions reduction strategies, plans, and programs to assure they attain and maintain the National Ambient Air Quality Standards (NAAQS). See the EPA Advance Program's website to learn more about the program.

Monitoring

6. **Question:** Are PM_{2.5} monitoring data from near-road sites applicable to the PM_{2.5} annual NAAQS?

Answer: Yes. This is addressed in the preamble to the 2012 PM NAAQS final rule, where the EPA identified that PM_{2.5} data from micro- and middle-scale near-road sites are “representative of many such locations throughout an area” and thus are applicable to the PM_{2.5} annual NAAQS. See 78 Fed. Reg., 3086, 3240 (Jan. 15, 2013); available at <https://www.federalregister.gov/d/2012-30946/p-1491>.

7. **Question:** How can data from non-regulatory monitors/secondary data be used in designation decisions?

Answer: Data from non-regulatory monitors and secondary data may, in certain circumstances, be helpful for defining an appropriate boundary for a nonattainment area, which must include nearby areas contributing to violations at regulatory monitors. However, only air quality data from regulatory monitors are used to determine the location and magnitude of violations of a NAAQS.

Exceptional Events and Designations

8. **Question:** What are the steps necessary for certifying 2023 exceptional events data before air agencies can use it for design value purposes? Do air agencies need to certify the data at the initial notification stage?

Answer: Data must be certified prior to submitting final exceptional events demonstrations for events that may have influenced that data. Data certification is not required at the initial

notification stage. If the EPA concurs on an exceptional events demonstration, the design value for that specific NAAQS will be recalculated to exclude the event-influenced data. The state does not need to recertify its data following the EPA's concurrence on a submitted demonstration.

9. **Question:** Will states have an opportunity to submit exceptional events demonstrations for 2023 data after the 2024 data is available? This would be relevant if 2021-2023 design values meet the NAAQS but 2022-2024 design values do not.

Answer: Exceptional Event demonstration submissions for the year 2023 are due to the EPA on February 7, 2025. Following the EPA's 120-day letter notifications in October 2025, states will have until December 2025 to submit any additional information that may affect designations determinations, including information related to exceptional events. Given the timing of these submittals, states are strongly encouraged to work closely with the EPA Regional offices so that the Regional offices are familiar with the content of a demonstration before it is formally submitted. Specifically, the EPA is encouraging states to conduct the initial notification as soon as they can. The EPA will make final determinations on demonstrations prior to issuing final designations on February 6, 2026.

10. **Question:** Many of our design values will be influenced by exceptional events. As we work through the exceptional events process, when will that be reflected in the EPA's Air Quality System (AQS)?

Answer: The data exclusion is typically reflected around the time that the action of regulatory significance is taken. When the EPA concurs based on the weight of evidence that the air agency has successfully made the demonstrations referred to in the Exceptional Events Rule at 40 CFR 50.14(a)(2) and (b)(1), the EPA generally will exclude the affected data from consideration in certain regulatory actions (including initial area designations).

After issuing a concurrence, the EPA will flag the data in the AQS to be excluded from design value calculations for the air quality standard for which the exclusion was requested. This will be reflected in AQS no later than the date the relevant regulatory action is taken.

Once the data is flagged for exclusion in AQS:

- The EPA's AQS will not include these days in user reports or in design value estimates if the "exclude events" report option is chosen when the report is run.
- The air quality data, without exclusion of the event days, will continue to be publicly available, but the EPA's publications and public information statements on the status of air quality in the affected area generally will not reflect these data in any summary statistic of potential regulatory application, unless such inclusion is specifically noted.

In addition, regulatory actions like designations that rely on a concurred demonstration, require the EPA to provide an opportunity for public comment prior to taking final Agency action. The EPA must consider and respond to received comments before taking final regulatory action. The EPA's concurrence on a demonstration is not considered final agency action until it is included in a notice-and-comment rulemaking.

11. Question: Concerning the designations recommendations, for 2021 exceptional events, does the EPA require some type of write-up or just a list of dates/monitors?

Answer: The EPA is not requiring demonstrations for exceptional events occurring in 2021 because these events are not likely to have regulatory significance for final designations determinations, which will likely be based on 2022-2024 data. If a state's designations recommendations are affected by exceptional events that occurred in 2021, the state should briefly address the relevant data in their recommendations. The level of discussion appropriate for 2021 data will be dependent on the severity and complexity of the events influencing the state's recommendation, and potential relevance of the events in question to the future air quality data from 2022-2024 that EPA will use to make final designations decisions. For example, a three-year design value from 2021-2023 that is high and violating primarily because of exceptional events in 2021, may be relevant to a state's recommendation that the area in question should be designated attainment, assuming that the relatively lower annual average values in 2022 and 2023 would continue in 2024. States should work with the appropriate EPA Regional office to discuss documentation for events occurring in 2021 that impact recommendations.

12. Question: Are resources being dedicated at the regional level to act on submitted exceptional events? Especially in the western regions?

Answer: Yes, the EPA is dedicating resources both at the regional level and headquarters to process anticipated exceptional events (EE) demonstrations for the 2024 PM_{2.5} designations.

13. Question: States will submit 2022 and 2023 EE demos by February 7th, 2025, based on 2021-2023 DV regulatory significance for their initial area designation recommendations. Can the EPA concur on 2022 and 2023 EE demos based on the 2021-2023 DV regulatory significance or only on the 2022-2024 design value (DV), for which the EPA makes final area designations?

Answer: Generally, if a demonstration does not affect a regulatory determination, it is considered to not have regulatory significance, and the EPA regional offices should defer action on the demonstration or recommend another existing mechanism for addressing the air agency's demonstration. If the 2022-2024 DV is not violating the NAAQS, then regional offices (ROs) should defer action on any submitted demonstration. If the 2022-2024 DV is violating and the EPA is designating areas based on that DV period (making a regulatory determination), ROs can concur on data in 2022 and 2023 because of the regulatorily significant DV period is 2022-2024. We would probably want to review all demonstrations received but hold off on issuing concurrence or deferral letters until we have 2022-2024 DVs and can determine regulatory significance. Recognizing that ROs have various resources available to them, it'll be at the ROs discretion, if they would like to review and concur on EEs in advance of the regulatory action because, in this case, the 2022 and 2023 data years are included in the 2022-2024 DV period. Lastly, the final designation action is of regulatory significance, and is considered a *determination by the administrator*. The state's recommendation is not considered an action of regulatory significance.

Nonattainment Area Analyses and Boundary Determinations

14. Question: How does the EPA determine the boundaries for a nonattainment area?

Answer: After identifying each regulatory monitor or group of monitors that indicate a violation of the standard in an area, the EPA intends to begin its analysis of what nearby areas contribute to the violation(s) by considering relevant information for counties in the entire metropolitan area (i.e., Core Based Statistical Area (CBSA) or Combined Statistical Area (CSA)) in which the violating monitor(s) is (are) located.⁵ The EPA also intends to evaluate any adjacent counties to the CBSA or CSA that have the potential to contribute. It is appropriate to start the analysis with the relevant CBSA or CSA for the area because measured ambient PM_{2.5} concentrations across urban-scale distances tend to be highly correlated and composed of direct emissions and multiple secondarily-formed pollutants attributable to a variety of sources commonly found throughout urbanized areas.⁶ Violations of the annual PM_{2.5} NAAQS are usually the result of emissions from a broad variety of sources that are typically located across a metropolitan area. The CBSA or CSA for that area is thus a reasonable starting point for gathering information to conduct an analysis of what nearby areas may be contributing to the violation of the NAAQS at a given monitor or monitors in a violating area. Although the CBSA or CSA is the starting point for the EPA's evaluation of contributions to a violation, the EPA does not intend it to be a presumed nonattainment area boundary.

As a framework for area-specific analyses, the EPA intends to use, and recommends that states and Tribes base their nonattainment area boundary recommendations on, an evaluation of information relevant to five factors: air quality data, emissions and emissions-related data, meteorology, geography/topography, and jurisdictional boundaries.⁷

15. Question: How do air agencies address potential multi-state nonattainment areas?

Answer: Where there is a violating monitor near a state boundary, the EPA encourages states within a multistate CSA/CBSA to coordinate regarding development of Governors' recommendations and throughout the designations process. While the EPA will consider recommendations from each of the affected states, for purposes of finalizing the nonattainment area boundary, if the nearby state is contributing to the adjacent state's violating monitor, EPA

⁵ The Office of Management and Budget (OMB) adopted standards for delineating metropolitan and micropolitan statistical areas on December 27, 2000 (65 FR 82229). These delineation standards established the terms CBSAs and CSAs. On July 16, 2021, OMB published their 2020 standards for delineating metropolitan and micropolitan statistical areas (86 FR 37770). The EPA intends to use the most recent list of CBSAs and CSAs in this designations process, published in March 2020.

⁶ U.S. EPA (2019). Integrated Science Assessment for Particulate Matter: Final Report. National Center for Environmental Assessment-RTP Division, Office of Research and Development, Research Triangle Park, NC. EPA/600/R-19/188. December 2019. Available at <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=347534>.

⁷ These factors are derived, in part, from the CAA's ozone pollution provisions identifying factors the Administrator is to consider in determining portions of metropolitan areas that may be excluded from an ozone nonattainment area. (CAA section 107(d)(4)(A)(v)). These CAA factors include population density, traffic congestion, commercial development, industrial development, meteorological conditions, and pollution transport. The EPA finds these factors, and other information as indicated in this memorandum, relevant to evaluating areas potentially contributing to NAAQS violations more generally, including in the context of PM_{2.5} pollution.

will likely establish a single nonattainment area. So, EPA highly encourages states to work collaboratively with adjacent states to develop a comprehensive narrative for multi-state nonattainment areas. Similarly, the EPA encourages states and Tribes to work collaboratively to develop a comprehensive narrative for areas consisting of both state and Tribal lands.⁸

16. Question: If the EPA disagrees with a state's recommendation for the boundary of a nonattainment area or the status of a county, what is the process for dealing with the conflict?

Answer: If the EPA decides it is necessary to make any modifications to a state's or Tribe's initial area designations recommendations, including area boundaries, then the EPA is required to notify the state or Tribe of this fact no later than 120 days prior to finalizing the designations. These notifications are commonly known as "120-day Letters." If a state or Tribe has additional information relevant to such an area that it wants the EPA to consider with respect to a designation recommendation that the EPA plans to modify, typically the EPA requests that such information be submitted no later than 60 days from the date of the EPA's 120-day Letter. This schedule will ensure that the EPA can fully consider any such additional information prior to issuing final designations.

Five Factor Analysis

17. Question: What is a five-factor analysis?

Answer: The five-factor analysis is a framework the EPA intends to use to determine a nonattainment area boundary.⁹ It is a weight of evidence evaluation of information relevant to five factors: air quality data, emissions and emissions-related data, meteorology geography/topography, and jurisdictional boundaries. The EPA recommends air agencies base their area boundary recommendations on an analysis of these factors.

18. Question: Will these five factors be combined to develop ranking metrics?

Answer: The EPA does not assign a specific weighting to the individual factors. Rather, the EPA uses a weight of evidence approach considering the facts and circumstances of each area.

19. Question: What emissions data year will be used for designations?

Answer: The EPA will incorporate the draft 2022 emissions modeling platform (2022 draft EMP) in the [PM Designations Mapping Tool](#) and will post this dataset on [the 2024 PM_{2.5} NAAQS Designations website](#). Both the PM Designations Mapping Tool and associated dataset will be

⁸ In these circumstances, each state and/or tribal entity would not be expected to describe the scope and scale of the air quality problem throughout the entire area, but rather would develop a conceptual model that describes only the contribution from their respective jurisdictions to the larger nonattainment area.

⁹ These factors are derived, in part, from the CAA's ozone pollution provisions identifying factors the Administrator is to consider in determining portions of metropolitan areas that may be excluded from an ozone nonattainment area. (CAA section 107(d)(4)(A)(v)). These CAA factors include population density, traffic congestion, commercial development, industrial development, meteorological conditions, and pollution transport. The EPA finds these factors, and other information as indicated in this memorandum, relevant to evaluating areas potentially contributing to NAAQS violations more generally, including in the context of PM_{2.5} pollution.

updated when the official 2022v1 is available. The v1 update will reflect, among other improvements, addressing comments from stakeholders (States/Locals/Tribes, and others).

Mapping Tool

20. Question: Will there be an option in the future to change the order of the layers?

Answer: There will not be an option to change the order of the layers. Users should employ the “Transparency” feature when using multiple layers.

21. Question: Will the tool have smaller areas than the counties such as townships?

Answer: The tool will not display areas smaller than counties in the layers.

22. Question: Please clarify what data is used as the underlying data for the mapping tool. (Draft 2022 EMP data or 2020 NEI data?)

Answer: The EPA will incorporate the draft 2022 emissions modeling platform inventory (2022 draft EMP) in the PM Designations Mapping Tool and will post dataset on the 2024 PM_{2.5} NAAQS Designations website. Both the PM Designations Mapping Tool and associated dataset will be updated when the official 2022v1 is available.

23. Question: Will there be any information for counties close to international borders?

Answer: The mapping tool will not have additional layers for counties close to international borders.

24. Question: Will the tool exclude ambient monitoring data that is not comparable to the annual PM_{2.5} NAAQS (e.g., source-oriented sites)?

Answer: The mapping tool includes regulatory FEM and FRM monitors only.

Environmental Justice

25. Question: How does the EPA plan to address Environmental Justice in the initial area designations process?

Answer: By adhering to the CAA’s schedule for issuing timely area designations, the EPA helps ensure that public health protections under the 2024 revised primary annual PM_{2.5} NAAQS are realized as soon as possible. Additionally, the EPA expects to provide additional information on the designations process through a video presentation that will address environmental justice considerations. EPA will also solicit feedback from the public through a non-regulatory docket on the kinds of community outreach activities that air agencies and the EPA could use to facilitate consideration of potential environmental justice concerns in the designations process. The public feedback received through this docket will be available as a resource to states, Tribes, and EPA as they move through the initial area designations process.