WESTAR
Western States Air Resources Council

March 28, 2023

U.S. Environmental Protection Agency
EPA Docket Center, OAR, Docket EPA-HQ-OAR-2015-0072
Mail Code 28221T, 1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Docket EPA-HQ-OAR-2015-0072, Reconsideration of the National Ambient Air Quality Standards for Particulate Matter – EPA Proposed Rule

Dear Administrator Regan,

Thank you for taking the time to consider WESTAR's comments regarding the proposed rule, Reconsideration of the National Ambient Air Quality Standards for Particulate Matter. These comments address the Air Quality Index (AQI) breakpoints and monitoring concerns related to the proposed annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) changes. We also share some perspectives on implementation issues. Although implementation is not necessarily a consideration when setting a new NAAQS, WESTAR feels it is important to raise these issues now so that EPA can address them as soon as possible.

Air Quality Index Breakpoints

The AQI is used for reporting daily air quality and relaying associated health effects of concern with short-term exposure. The AQI breakpoints are not representative of the effects of long-term exposure. However, in the proposal, EPA plans to revise the Air Quality Index (AQI) breakpoints to align with the proposed *annual* standard. Specifically, the lower breakpoint between "healthy" and "moderate" would be set at the revised annual standard of 9 to 10 $\mu g/m^3$. While this is consistent with past revisions to the PM NAAQS, the current proposal does not address how people will be impacted by short-term exposure at low concentrations like 9 $\mu g/m^3$. If the lower breakpoint drops to 9 to 10 $\mu g/m^3$, it will result in more observations in the moderate category. There are several concerns about the daily AQI values as well as the NowCast hourly values.

First, correlating the low-end AQI breakpoint for the moderate category to the annual standard is not entirely logical. While this has been the practice for past changes to the $PM_{2.5}$ NAAQS, the annual standard reflects long-term exposures and associated health effects at that level.[1] The science does not appear to support that short-term exposures at the same level have significant health impacts, especially at the hourly level as it applies to NowCast. Additional studies are needed to identify short-term exposure health impacts at low concentrations.

[1] https://www.federalregister.gov/d/2023-00269/p-729

Second, many states have programs and policy decisions tied to the daily AQI breakpoint levels. In some states, public health alerts are issued based on AQI breakpoints and other actions are taken based on the monitor concentration readings. For example, states' smoke management programs issue burn approvals based on concentration data. With a change in the moderate AQI, there will now be burn approvals when the AQI is in the 'Moderate' range as opposed to 'Healthy' as it has been in the past. There is a potential for inconsistent messaging to the public if the concentration thresholds states use for decisions remain the same, per state rule or statute, but the AQI breakpoint changes. This may create a public trust issue. The AQI data will show more moderate days than previously recorded, yet the public perception of air quality issues may remain unchanged because the monitor values continue showing the same readings as past observations on "healthy" air quality days.

Monitor Siting Criteria

EPA is proposing to modify the $PM_{2.5}$ monitoring network design standards by requiring that, where a third monitor is required, it be sited in an "at-risk community." While the intent of this change is to address important environmental justice concerns, it may have some unintended impacts. First, the term "at-risk communities" is not defined. WESTAR supports this allowance of flexibility for air agencies to identify these areas so that they can continue siting monitors in areas that are representative of the nonattainment area as currently required. We caution EPA that siting monitors near a "source or sources of concern" and then using those monitors to determine NAAQS compliance could result in a biased design value.

For example, a western state installed a near-road monitor according to the EPA requirements. Near-road monitors are source monitors that are designed to capture tailpipe emissions while SLAMS monitors are installed at sites to monitor metropolitan air quality. As expected, the near-road monitor showed higher $PM_{2.5}$ values than other monitors in the nonattainment area. However, after the three-year study period, EPA told the state that the monitor must now remain in place and that it could be used to determine compliance with the NAAQS. Source monitors, and especially near-road monitors, should not be used to determine NAAQS compliance. EPA should allow the removal of these monitors after the required 3-year near-road monitoring or codify in the $PM_{2.5}$ rulemaking that near-road monitors or other monitors sited near sources of concern cannot be used for NAAQS compliance.

Finally, implementation of any additional requirements to expand monitoring and identification of at-risk communities will require additional resources. EPA must pair any increase in monitoring requirements with an increase in state and local agency funding through additional section 103 funds.

Monitor Bias

EPA correctly recognizes the bias between Federal Reference Monitors (FRMs) and Federal Equivalent Monitors (FEMs). As such, EPA is proposing to use routine and collocated FRM data operated by State, local, and Tribal agencies as the basis for updating factory calibrations for FEMs. WESTAR agrees with this proposal and notes that instrument companies' correction factors are generally developed in a specific climate that does not reflect the varying climatic conditions at many monitors across the West. Therefore, these correction factors are not universally applicable. We also note that not all FEMs are collocated with an FRM. In these instances, WESTAR recommends that EPA allow the application of a correction factor that is from an area with a similar climate and other conditions.

Wood Heating

EPA's proposed standard will affect many rural areas in the West where the main source of emissions is from wood heating. These areas will need EPA's help to attain the standard including better test methods

to identify cleaner burning wood heating appliances and expanded targeted airshed grant funding for nonattainment areas.

In 2020, the Northeast States for Coordinated Air Use Management (NESCAUM) released a report on a comprehensive assessment of EPA's Residential Wood Heating certification program, in which the organization wrote that the "report finds a systemic failure of the entire certification process" and that the "unavoidable conclusion of this report is that EPA's certification program to ensure new wood heaters meet clean air requirements is dysfunctional. It is easily manipulated by manufacturers and testing laboratories. EPA has done little to no oversight and enforcement."[2] On February 28, 2023, EPA's Office of Inspector General (OIG) confirmed NESCAUM's conclusions in a report titled: "The EPA's Residential Wood Heater Program Does Not Provide Reasonable Assurance that Heaters Are Properly Tested and Certified Before Reaching Consumers." OIG's summary conclusion is that: "The EPA's ineffective residential wood heater program puts human health and the environment at risk for exposure to dangerous fine-particulate-matter pollution by allowing sales of wood heaters that may not meet emission standards."[3] While new Federal test methods for wood stoves are planned to be released at the end of 2023, this will not fully address all six issues outlined in the OIG report. This will be a grave problem for new nonattainment areas where the majority of PM2.5 emissions are from residential wood heating. Addressing these issues comprehensively and expediently is imperative because woodstove changeouts will need to be part of their compliance plans.

Exceptional Events

Many Western states already face challenges meeting the current $PM_{2.5}$ standards because of exceedances caused by wildfire smoke, which continues to increase in frequency, duration, and intensity. According to the FY 2024 EPA Budget Brief, "wildfire smoke can make up approximately 30 percent of total $PM_{2.5}$ emissions in some regions of the U.S., aggravating heart and lung disease and causing premature death."[4] The increase in wildfires in the West has increased the number of unhealthy air quality days due to smoke from those fires. With a lower $PM_{2.5}$ standard, many exceptional events (EEs) will become regulatorily significant. Over the past eight years, the number of wildfire exceptional event demonstrations submitted to EPA has increased.[5] EPA should consider changing how exceptional events are treated and modify the rule to streamline the exceptional event demonstration process. EPA could allow a single demonstration for a range of dates, even if the dates are nonconsecutive, but the exceptional events are caused by the same source(s). Another improvement could be to allow multi-state or regional demonstrations when large regional wildfires are the source. The current rule and guidance will require significantly more resources for EPA, state, local, and Tribal air agencies due to the increasing number of demonstrations required. Therefore, EPA should proactively plan for changes to the Exceptional Events rule and guidance.

While EPA may consider changes to the Exceptional Events rule or guidance, EPA should also consider removing the Q/d from the ozone exceptional events guidance. Many air agencies are finding that the Q/d screening method is ineffective. As an example, the Dixie Fire in California which burned nearly 1 million acres in 2021, was the largest and closest wildfire to Utah, and yet, Utah was unable to meet the Q/d threshold despite smoke transport that lasted over a 6-week period.[6] Utah had to aggregate five smaller CA wildfires to the Q/d for the Dixie wildfire to barely meet the Q/d threshold of 100. Smoke

[2] https://www.nescaum.org/documents/nescaum-review-of-epa-rwh-nsps-certification-program-202103.pdf/
[3] https://www.epa.gov/system/files/documents/2023-02/_epaoig_20230228-23-E-0012_2.pdf
[4] https://www.epa.gov/system/files/documents/2023-03/fy-2024-epa-bib.pdf
[5] GAO Report to Congress. March 2023. Wildfire Smoke: Opportunities to Strengthen Federal Efforts to Manage Growing Risks. GAO-23-104723. https://www.gao.gov/products/gao-23-104723
[6] https://www.fire.ca.gov/incidents/2021/7/13/dixie-fire/

from wildfires can also cause low-level exceedances of the $PM_{2.5}$ standard that last for several weeks or even months. These exceedances are typically only 2 or 3 $\mu g/m^3$ above the NAAQS which makes a Q/d analysis impossible. Tracking this type of event is also difficult using back trajectory models. While the impact of smoke in these instances is clear, the burden of proof required within an exceptional event demonstration and the staff resources required are immense.

While efficiencies within the Exceptional Event rule would help many states meet the current or proposed NAAQS, it is important to note that this does not address the health effects experienced by people in areas of the West that are heavily impacted by smoke. In the report on wildfire smoke referenced above, the GAO identifies "actions EPA could consider to address concerns about public health and increasing resource burdens. These actions involve providing incentives and support for Tribal, state, and local air agencies to collaborate with land managers, landowners, and communities to reduce the likelihood of future smoke events from catastrophic wildfires through wildfire risk mitigation."

EPA Emission Controls

If EPA's proposal to strengthen the annual $PM_{2.5}$ NAAQS is finalized, it will become more important for EPA to do its part to support the states' efforts to reduce pollutant emissions through increasingly stringent standards for federally regulated sources such as on-road and off-road engines, locomotives, and off-shore shipping, aviation and prioritizing enforcement of diesel engine tampering violations.

WESTAR appreciates EPA's commitment to improving air quality in the West and the opportunity to comment on the proposed reconsideration of the PM NAAQS.

Sincerely,

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