



Huntington Center, Suite 2200  
41 South High Street  
Columbus, Ohio 43215  
614-221-5100  
Fax 614-221-0952  
www.steptoe-johnson.com

Writer's Contact Information  
317-946-9882  
skipp.kropp@steptoe-johnson.com

December 20, 2024

Ms. Tammy Manning  
NC Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641

Re: Exceptional Events Demonstration to Support Attainment  
Designation Recommendations for the 2024 Annual PM<sub>2.5</sub>  
National Ambient Air Quality Standard (NAAQS) for  
Mecklenburg and Davidson Counties, North Carolina  
(June – July 2023 Canadian Wildfire Smoke Impacts)

Dear Ms. Manning:

The Midwest Ozone Group<sup>1</sup> (“MOG”) is pleased to provide comments in support of this proposed demonstration and the use of the data involved in support of other demonstrations related to the events involved.

---

<sup>1</sup> The membership of the Midwest Ozone Group includes: Ameren, American Electric Power, American Forest & Paper Association, American Iron and Steel Institute, American Wood Council, Appalachian Region Independent Power Producers Association, Associated Electric Cooperative, Berkshire Hathaway Energy, Big Rivers Electric Corp., Buckeye Power, Inc., Citizens Energy Group, City Water, Light & Power (Springfield IL), Cleveland-Cliffs Inc., Council of Industrial Boiler Owners, Duke Energy Corp., East Kentucky Power Cooperative, ExxonMobil, FirstEnergy Corp., Indiana Energy Association, Indiana-Kentucky Electric Corporation, Indiana Municipal Power Agency, Indiana Utility Group, Hoosier Energy REC, inc., LGE/ KU, Marathon Petroleum Company, National Lime Association, North American Stainless, Nucor Corporation, Ohio Utility Group, Ohio Valley Electric Corporation, Olympus Power, Steel Manufacturers Association, and Wabash Valley Power Alliance.

While the Clean Air Act (the “Act”) requires States to meet certain air quality standards, the Act also recognizes that exceptional events, including wildfires and prescribed burns, may sometimes prevent that from happening. Exceptional events can cause air quality monitoring data to exceed permissible concentrations of a pollutant, also called an exceedance. When that happens, the Act directs the Administrator of the United States Environmental Protection Agency (USEPA) to exclude that data from further consideration if the state demonstrates to USEPA's satisfaction that the event caused the exceedance.

On November 20, 2024, the North Carolina Department of Environmental Quality Division of Air Quality (NCDAQ) issued a public notice regarding the availability for comment of a proposed draft “Pre-hearing Draft of the Exceptional Events Demonstration to Support Attainment Designation Recommendations for the 2024 Annual PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS) for Mecklenburg and Davidson Counties.” The deadline for the submittal of comments is December 20, 2024.

The proposed exceptional events demonstration details the PM<sub>2.5</sub> episodes occurring in the state of North Carolina in June and July of 2023. The proposed demonstration specifically addresses the PM<sub>2.5</sub> episodes occurring at two monitors, the Remount Road monitor (Air Quality System (AQS) ID# 371190045) located in Mecklenburg County and the Lexington Water Tower monitor (AQS ID# 370570002) located in Davidson County. Specifically, for these two monitors, proposed demonstration provides technical documentation to support North Carolina’s request to U.S. Environmental Protection Agency (EPA) to exclude PM<sub>2.5</sub> monitoring data for certain days in 2023 strongly influenced by Canadian Wildfire smoke.

The following comments are offered on behalf of MOG in support of this proposed exceptional events demonstration and the demonstrations of other states seeking to recognize the same events.<sup>2</sup>

MOG is an affiliation of companies and associations that draws upon its collective resources to seek solutions to the development of legally and technically sound air quality programs that may impact on their facilities, their employees, their communities, their contractors, and the consumers of their products. MOG's primary efforts are to work with policy makers in evaluating air quality policies by encouraging the use of sound science. MOG has been actively engaged in a variety

---

<sup>2</sup> These comments were prepared with the technical assistance of Alpine Geophysics, LLC.

of issues and initiatives related to the development and implementation of air quality policy, including the development of transport rules (including exceptional events demonstrations, implementation of NAAQS standards, nonattainment designations, petitions under Sections 126, 176A and 184(c) of the Clean Air Act (“CAA”), NAAQS implementation guidance, the development of Good Neighbor State Implementation Plans (“SIPs”), the development of greenhouse gas and Mercury and Air Toxics Standards Rules and related regional haze issues. MOG Members and Participants own and operate numerous stationary sources that are affected by air quality requirements including the PM<sub>2.5</sub> NAAQS.

By way of background, when amending the Clean Air Act in 2005, Congress intended to provide regulatory relief for NAAQS nonattainment resulting from exceptional events negatively affecting air quality that were outside of a state's control. That concern led to enactment of provisions specifically establishing the process by which USEPA could exclude air quality monitoring data directly related to an exceptional event. *See* 42. U.S.C. § 7619. Subsequently, USEPA promulgated the exceptional events rule. 40 C.F.R. § 50.14. Under the exceptional events rule, USEPA excludes “any data of concentration of a pollutant above the NAAQS (exceedances) if the air quality was influenced by exceptional events.” *Bahr v. Regan*, 6 F.4th 1059, 1066 (9th Cir. 2021) (cleaned up).

A state requesting data exclusion under the exceptional events rule must demonstrate “to the Administrator's satisfaction that such event caused a specific air pollution concentration at a particular air quality monitoring location.” 40 C.F.R. § 50.14(a)(1)(ii). That demonstration must include certain regulatory required information:

- (A) A narrative conceptual model that described the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);
- (B) A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation;
- (C) Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the requirement at paragraph (c)(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;

- (D) A demonstration that the event was both not reasonably controllable and not reasonably preventable; and
- (E) A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.

40 C.F.R. § 50.14(c)(3)(iv).

A state must also comply with pre-request requirements, which include notifying USEPA of the intent to request exclusion, flagging data to be excluded, engaging in public comments, and implementing mitigation measures. See 40 C.F.R. § 50.14(c)(2)(i); 40 C.F.R. § 50.14(c)(3)(v); 40 C.F.R. § 51.930. In short, there are three core statutory elements: (1) a clear causal relationship; (2) a showing that the event was not controllable, and (3) a showing that the event was human activity unlikely to recur a particular location or was a natural event.

Depending on the circumstances of a particular exceptional event, a particular tier of evidence is required to provide a compelling case to USEPA to exclude data under the Exceptional Events Rule. In instances where a state provides sufficient evidence to showcase that a given event is indeed an irregularity, USEPA will make a concurring determination and issue an exclusion of that specific event from the dataset. 40 C.F.R. 50.14(c)(2)(ii).

Wildland fires make up 44% of primary PM<sub>2.5</sub> emissions. See 89 Fed. Reg. 16214. As such, these events can cause exceedances that impact design values in a particular area.

USEPA has recognized that these particular events are exceptional and that states may request to exclude them from the dataset, given that a sufficient evidentiary standard is met. *Id.*; see generally, 81 Fed. Reg. 68216. There are several tiers of evidentiary showings related to PM<sub>2.5</sub> demonstrations. These three tiers create a ladder of increasing evidentiary burdens on the states to convince USEPA that an event merits exclusion.

- Tier 1 clear causal analyses are intended for wildland fire events that cause unambiguous PM<sub>2.5</sub> impacts well above historical 24-hour concentrations, thus requiring less evidence to establish a clear causal relationship.
- Tier 2 clear causal analyses are likely appropriate when the impacts of the wildland fire on PM<sub>2.5</sub> concentrations are less distinguishable from historical 24-hour concentrations, and require more evidence, than Tier 1 analyses.

- Tier 3 clear causal analyses should be used for events in which the relationship between the wildland fire and PM<sub>2.5</sub> 24-hour concentrations are more complicated than a Tier 2 analysis, when 24-hour PM<sub>2.5</sub> concentrations are near or within the range of historical concentrations, and thus require more evidence to establish the clear causal relationship than Tier 2 or Tier 1.

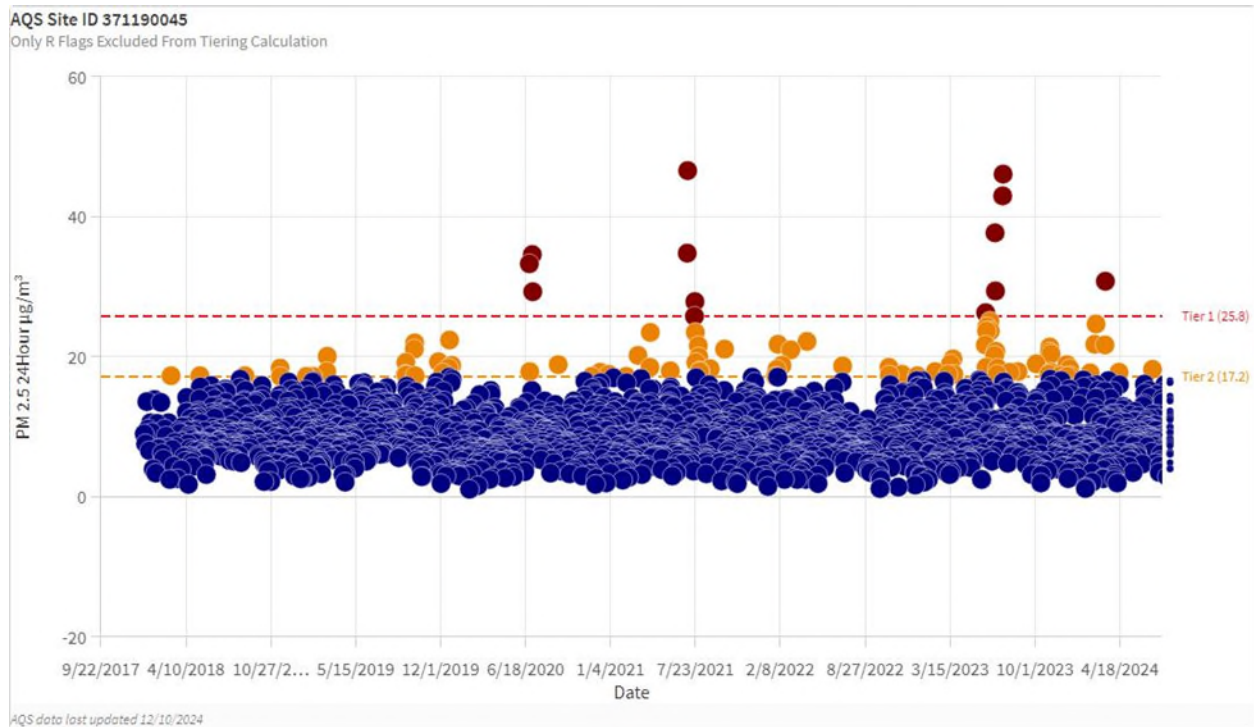
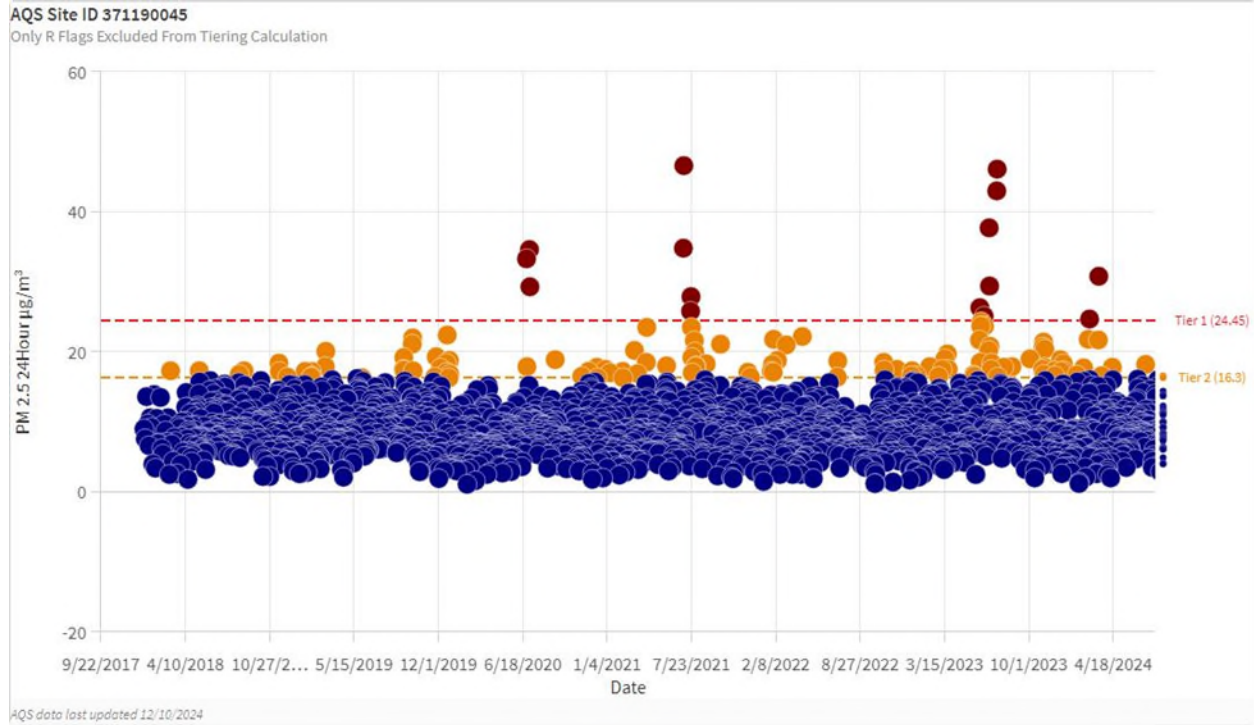
U.S. Environmental Protection Agency, *PM<sub>2.5</sub> Wildland Fire Exceptional Events Tiering Document* (April 2024) at 5. It is important to note that the overall processes for exceptional event demonstrations for wildfire ozone and wildland fire PM<sub>2.5</sub> are the same. See *id.* at 6.

MOG agrees that the proposed NCDAQ demonstration shows that the levels of PM<sub>2.5</sub> concentration measured at the Remount Road monitor (Air Quality System (AQS) ID# 371190045) located in Mecklenburg County and the Lexington Water Tower monitor (AQS ID# 370570002) located in Davidson County during these events were highly unusual because the measured PM<sub>2.5</sub> concentration exceedances for those monitors during the four episodes were more than 1.5 times the most recent 5-year monthly specific 98<sup>th</sup> percentile for 24-hour PM<sub>2.5</sub> data, as identified in the Environmental Protection Agency's Tiering Tool.<sup>3</sup>

MOG notes that the proposed demonstration shows that the Canadian wildfire event affected the Remount Road monitor located in Mecklenburg County and the Lexington Water Tower monitor located in Davidson County during each of the four documented episodes. This caused average PM<sub>2.5</sub> concentrations at those two monitors to experience multiple daily Tier 1 and 2 level exceedances as defined in EPA's Tiering Tool during the relevant periods and as seen in NCDAQ's demonstration and presented in Figures 1 and 2 below.

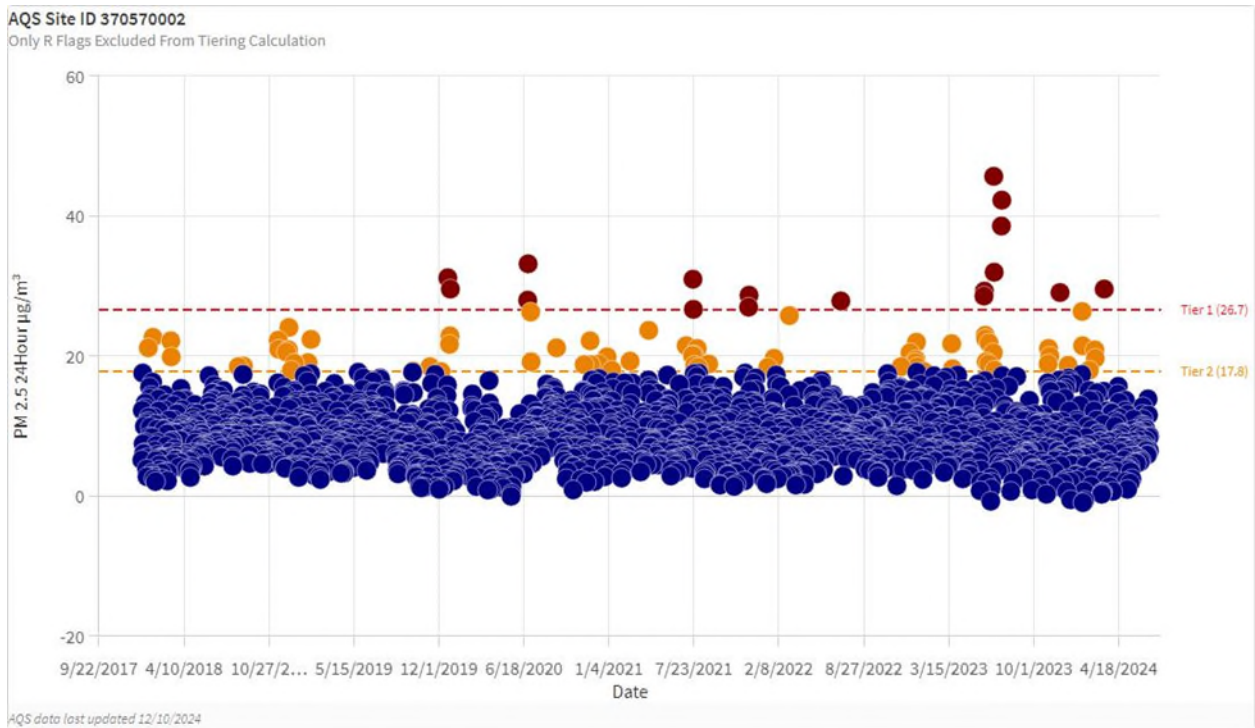
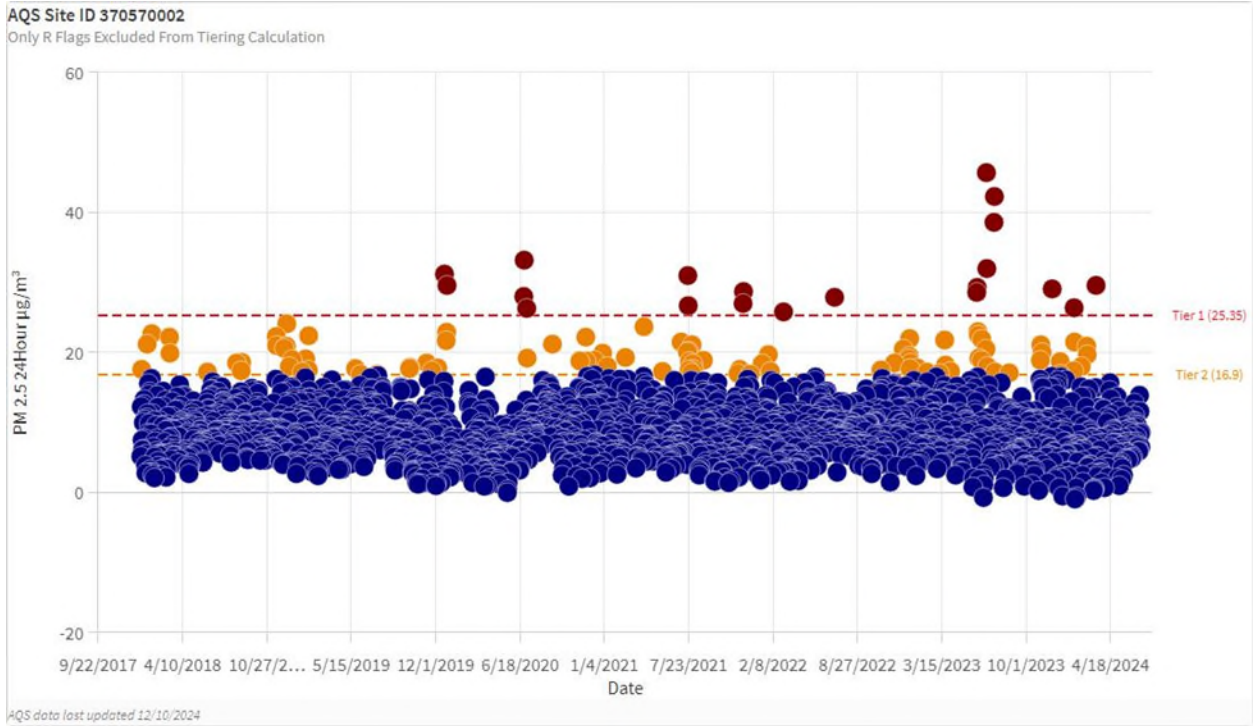
---

<sup>3</sup> U.S. Environmental Protection Agency. "Tiering Tool – for Exceptional Events Analysis". Air Quality Analysis. U.S. Environmental Protection Agency, March 26, 2024, <https://www.epa.gov/air-quality-analysis/tiering-tool-exceptional-events-analysis>



**Figure 1.** Tiering Graph for the Remount Road Monitor (371190045) for June (top) and July (bottom) Tier 1 and Tier 2 Exceptional Events levels.





**Figure 2.** Tiering Graph for the Lexington Monitor (370570002) for June (top) and July (bottom) Tier 1 and Tier 2 Exceptional Events levels.

MOG fully supports the NCDAQ request that the USEPA Administrator excludes the ambient PM<sub>2.5</sub> concentrations measured at the Remount Road monitor located in Mecklenburg County and the Lexington Water Tower monitor monitoring sites from calculation of annual PM<sub>2.5</sub> design values and from other regulatory determinations.

As set forth in its proposed demonstration, NCDAQ has shown that transported smoke from the 2023 Canadian Wildfires on wildlands caused the PM<sub>2.5</sub> exceedances at the Remount Road monitor located in Mecklenburg County and the Lexington Water Tower monitor located in Davidson County. NCDAQ correctly notes that exclusion of the data on the relevant dates would result in statewide attainment of the 2024 revised primary annual PM<sub>2.5</sub> NAAQS.

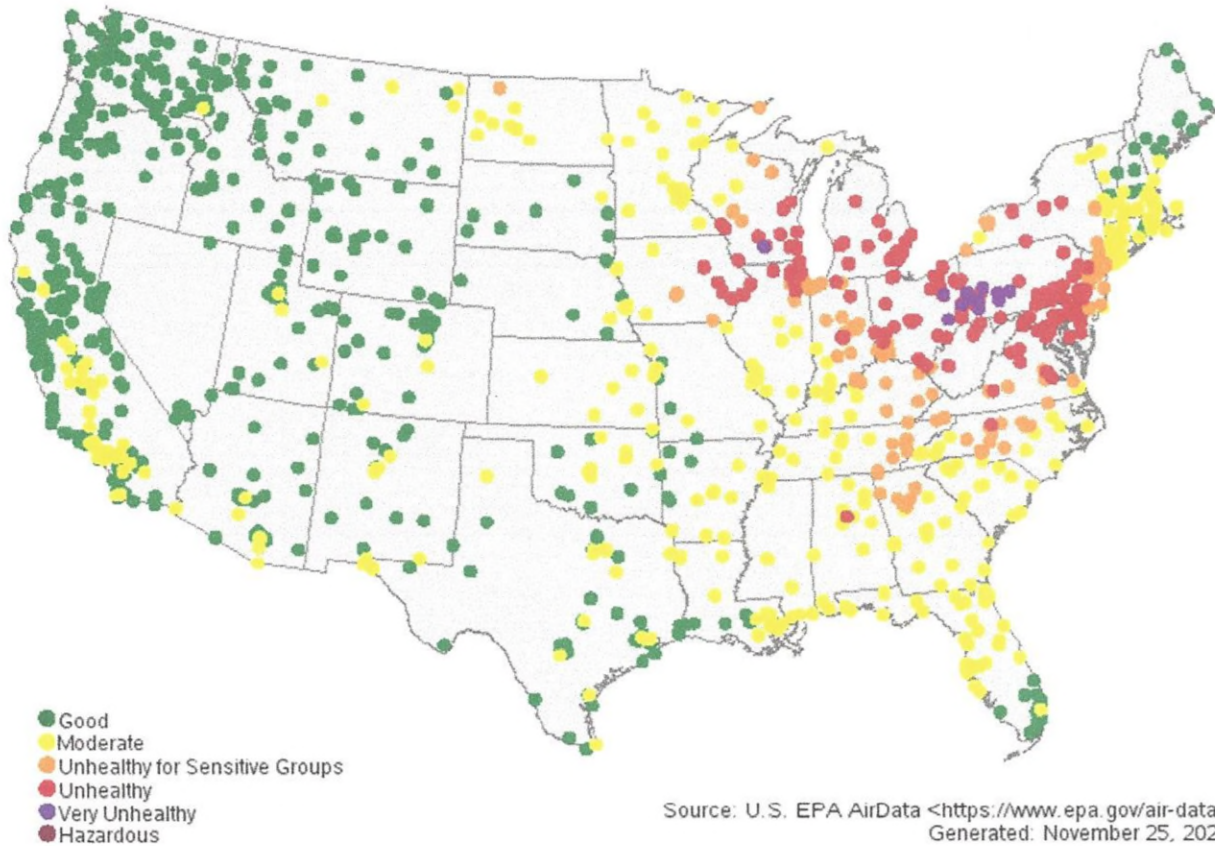
The proposed demonstration goes on to address such remaining factors as a narrative conceptual model describing the event as not reasonably controllable and not caused by human activity and satisfies requirements related to notification of the public of the events and participation of the public in the submission of this request.

The monitor and episode days that are carefully addressed in the proposed NCDAQ demonstration are far from the only ones that have influenced air quality during those time frames. Many PM<sub>2.5</sub> monitors in the same area also observed 24-hour average PM<sub>2.5</sub> concentrations at significantly elevated levels on the same exclusion dates, as well as on days around these dates. As has been noted, additional days, even if not currently ‘regulatorily significant,’ may in the future be relevant and significant not only to North Carolina but also to other states. USEPA should consider allowing this proposed demonstration to stand for those additional monitors and days, as needed.

Air quality data and maps demonstrate that air quality during these identified episodes also had significant impact on multiple other monitors in the Midwest, northeast, and MidAtlantic US. Below is a PM<sub>2.5</sub> air quality index plot from the June 29, 2023 date that illustrates that multiple monitors in these regions are also likely to have Tier 1 threshold exceedances of current or future regulatory significance during this and other exceedance episodes.



## PM2.5 AQI Values by site on 06/29/2023



MOG urges USEPA to accept other demonstrations that may utilize this technical work to demonstrate wildfire influence on other regional monitors during the same episodes of record.

MOG appreciates this opportunity to offer comments in support of the proposed NCDAQ exceptional events demonstration for the exceedances of the 2023 Annual PM<sub>2.5</sub> NAAQS at the Remount Road monitor (Air Quality System (AQS) ID# 371190045) and the Lexington Water Tower monitor (AQS ID# 370570002) due to smoke from Canadian Wildfires. MOG also appreciates the opportunity to express support for consideration of this data in the development of demonstrations by other states related to these events. Congress has made it clear that data of the nature described in this proposed demonstration cannot and should not be used to implement a National Ambient Air Quality Standard and other matters of regulatory significance.

Very truly yours,

Edward L. Kropp  
Legal Counsel  
Midwest Ozone Group