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October 30, 2024

Department of Natural Resources Attn. Emma Cleveland – AM/7 P.O. Box 7921 101 S. Webster Street Madison, WI 53707-7921

## Re: EXCEPTIONAL EVENT DEMONSTRATION, 2023 Late June Quebec Wildfires and Their Impacts on Fine Particulate Matter Concentrations in Southeast Wisconsin, Publication number: AM-646

Dear Ms. Cleveland:

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

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

<sup>&</sup>lt;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.

exclude that data from further consideration if the state demonstrates to USEPA's satisfaction that the event caused the exceedance.

On October 1, 2024, the Wisconsin Department of Natural Resources ("DNR") issued a public notice regarding the availability for comment of an "EXCEPTIONAL EVENT DEMONSTRATION, 2023 Late June Quebec Wildfires and Their Impacts on Fine Particulate Matter Concentrations in Southeast Wisconsin, Publication number: AM-646" The deadline for the submittal of comments is October 31, 2024.

The exceptional events demonstration details the PM2.5 episode occurring in the state of Wisconsin from June 26–30, 2023. The demonstration specifically addresses PM2.5 impacts measured at the Milwaukee 16<sup>th</sup> Street Health Center (MKE16) and the Waukesha Cleveland Avenue (WCA) monitors.

The following comments are offered on behalf of MOG in support of this 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 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

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

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 form 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  $PM_{2.5}$  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  $PM_{2.5}$  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  $PM_{2.5}$  24-hour concentrations are more complicated than a Tier 2 analysis, when 24-hour  $PM_{2.5}$  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, *PM2.5 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  $PM_{2.5}$  are the same. See *id.* at 6.

MOG agrees that the DNR demonstration shows that the level of  $PM_{2.5}$  concentration measured at the MKE16 and WCA monitors during this event was highly unusual because the measured  $PM_{2.5}$  concentration exceedances for those

monitors during the week was more than 1.5 times the most recent 5-year monthly specific  $98^{th}$  percentile for 24-hour PM<sub>2.5</sub> data, as identified in the Environmental Protection Agency's Tiering Tool and presented in the figures below.<sup>3</sup>



<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, <u>https://www.epa.gov/air-quality-analysis/tiering-tool-exceptional-events-analysis</u>

MOG notes that the demonstration shows that the late June Canadian wildfire event affected both sites, causing daily average PM2.5 concentrations to reach over 160  $\mu$ g/m<sup>3</sup>, approximately 20 times higher than the 2019–2023 average and that, in implementing guidance from EPA's PM2.5 Wildland Fire Exceptional Events Tiering Document issued in April of 2024, tiering thresholds determined by calculating 98<sup>th</sup> percentile values over various subsets of the five-year dataset were 19.2  $\mu$ g/m<sup>3</sup> and 17.4  $\mu$ g/m<sup>3</sup> for MKE16 and WCA, respectively. The demonstration shows that, multiplying these thresholds by 1.5 yields Tier 1 cutoff values of 28.8  $\mu$ g/m<sup>3</sup> and 26.1  $\mu$ g/m<sup>3</sup> for MKE16 and WCA, respectively, resulting in Tier 1 status for the June 26-30, 2023, event at both monitors.

MOG fully supports the DNR request that the USEPA Administrator exclude that the ambient  $PM_{2.5}$  concentrations measured at the MKE16 and WCA monitors from June 26-30, 2023, from calculation of annual  $PM_{2.5}$  design values and from other regulatory determinations. As set forth in its demonstration, DNR has shown that transported smoke from the 2023 Canadian Wildfires on wildlands caused the  $PM_{2.5}$  exceedances at the MKE16 and WCA monitors from June 26-30, 2023. DNR correctly notes that exclusion of the June 26-30, 2023, data points will lower the 2023 DV for the MKE16 and WCA monitors to 8.8 µg/m<sup>3</sup> and 8.7 µg/m<sup>3</sup>, respectively, and allow these monitors to be consider attainment.

The demonstration goes on the 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 monitors and episode days that are carefully addressed in the DNR 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 Wisconsin but also to other states. USEPA should consider allowing this 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. Below are U.S. EPA AirData<sup>4</sup> daily  $PM_{2.5}$  air quality index plots from June 26-30, 2023, that corroborate the maps provided in the DNR demonstration and that illustrate that multiple monitors East of the Mississippi are likely to have Tier 1 threshold exceedances of current or future regulatory significance.



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.

<sup>&</sup>lt;sup>4</sup> https://www.epa.gov/outdoor-air-quality-data/air-data-concentration-map

MOG appreciates this opportunity to offer comments in support of the DNR exceptional events demonstration for the exceedances of the 2024 Annual  $PM_{2.5}$  NAAQS at the MKE16 and WCA monitors from June 26-30, 2023, 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 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