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September 4, 2025

Dr. James W. Boylan, Chief
Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, Georgia, 30354

Re: 2022-2024 Exceptional Event Demonstrations

Dear Dr. Boylan:

The Midwest Ozone Group¹(“MOG”) is pleased to provide comments in support of these proposed demonstrations.

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

¹ 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., 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, Monongahela Power Company, 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.

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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 August 4, 2025, the Georgia Environmental Protection Division (EPD) issued a public notice regarding the availability for comment of proposed draft "2022-2024 Exceptional Event Demonstrations" in the state of Georgia. The deadline for the submittal of comments is September 4, 2025.

The proposed exceptional events demonstrations detail the PM_{2.5} episodes occurring in the state of Georgia between 2022 and 2024. The proposed demonstrations specifically address PM_{2.5} episodes occurring at six monitors, including monitors in Augusta, Columbus, Macon, Sandersville, Forest Park, and Gwinett Tech, Georgia. Specifically, for these monitors, the proposed demonstrations provide technical documentation to support EPD's request to U.S. Environmental Protection Agency (EPA) to exclude PM_{2.5} monitoring data for multiple days in 2022, 2023, and 2024 that were strongly influenced by unusual events including prescribed fires and Canadian wildfires.

The following comments are offered on behalf of MOG in support of these proposed exceptional events demonstrations.²

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

² These comments were prepared with the technical assistance of Alpine Geophysics, LLC.

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_{2.5} 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 at 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).

USEPA has recognized that 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_{2.5} 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_{2.5} 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, *PM_{2.5} 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. EPA has also acknowledged that, “[a]lthough the O₃-specific tiering structure does not apply to PM, nearly all of the same types of individual analyses may apply to PM...”³

MOG notes that the proposed demonstrations show that the events affected the monitors in Augusta, Columbus, Macon, Sandersville, Forest Park, and Gwinett Tech, Georgia, during each of the documented episodes. This caused average PM_{2.5} concentrations at monitors in those area 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 EPD’s demonstrations.

MOG fully supports the EPD request that the USEPA Administrator exclude the ambient PM_{2.5} concentrations measured at the Augusta, Columbus, Macon, Sandersville, Atlanta, and Rossville, Georgia, monitoring sites during all these documented events from calculations of annual PM_{2.5} design values and from other regulatory determinations.

As set forth in its proposed demonstrations, EPD has shown that the documented events caused the PM_{2.5} exceedances at the monitors in Augusta, Columbus, Macon, Sandersville, Forest Park, and Gwinett Tech, Georgia. EPD

³ “Exceptional Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations” August 2019 (https://www.epa.gov/sites/default/files/2019-08/documents/ee_prescribed_fire_final_guidance_-_august_2019.pdf)

correctly notes that exclusion of the data on the relevant dates would result in attainment of the 2024 revised primary annual PM_{2.5} NAAQS at these monitors.

The proposed demonstrations address such remaining factors as a narrative conceptual model describing the events as not reasonably controllable and not caused by human activity and satisfy requirements related to notification of the public of the events and participation of the public in the submission of these requests.

The monitors and episode days that are carefully addressed in the proposed EPD demonstrations are far from the only ones that have influenced air quality during those time frames. Many PM_{2.5} monitors in the same area also observed 24-hour average PM_{2.5} 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 Georgia but also to other states. USEPA should consider allowing these proposed demonstrations to stand for those additional monitors and days, as needed.

MOG appreciates this opportunity to offer comments in support of the proposed EPD exceptional events demonstrations for the exceedances of the revised 2024 Annual PM_{2.5} NAAQS at the Augusta, Columbus, Macon, Sandersville, Forest Park, and Gwinett Tech, Georgia, monitoring sites due to these well documented exceptional 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,

A handwritten signature in blue ink that reads "Edward L. Kropp". The signature is written in a cursive style with a clear, legible font.

Edward L. Kropp
Legal Counsel
Midwest Ozone Group

September 4, 2025

Via Electronic Mail

James W. Boylan,
Branch Chief, Air Protection Branch
Georgia Environmental Protection Division
4244 International Parkway, Suite 120
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**RE: Comments on 2022-2024 Exceptional Event Demonstrations for the Annual
PM_{2.5} NAAQS**

Dear Mr. Boylan:

On behalf of Environment Georgia Research & Policy Center, the Natural Resources Defense Council, the Georgia Chapter of the Sierra Club, the Savannah Riverkeeper, Sustainable Communities Augusta, and the Southern Environmental Law Center, I write to submit comments regarding the Georgia Environmental Protection Division's Exceptional Event Demonstrations for events occurring between 2022-2024. Comments were previously submitted regarding the Exceptional Event Demonstration for events occurring between 2021-2023. To the extent relevant to the current demonstration, those prior comments are incorporated by reference.

We recognize the importance of prescribed fire in maintaining the ecology and safety of Georgia's forests. We also recognize the challenges associated with implementing the Exceptional Event Rule in Georgia, where prescribed fire is used differently than in the Western United States. Although the Exceptional Event Rule allows exceedances to be discounted in specific circumstances, it does not change the fact that Georgians are experiencing elevated levels of air pollution and suffering adverse health consequences as a result. The Exceptional Event Rule should only be used to the extent authorized by law and only where all possible measures to reduce and minimize prescribed fire smoke have been exhausted.

I. INTRODUCTION

The Georgia Environmental Protection Division (EPD) intends to petition the U.S. Environmental Protection Agency (EPA) to exclude 104 event days between 2022-2024 in which air pollution data at Georgia air quality monitors exceeded federal air quality standards (collectively, "the 2024 EE Demonstrations"). This data would be excluded under the Clean Air Act's Exceptional Events Rule due to the presence of smoke from prescribed fires and Canadian wildfires. Excluding this data would allow these areas to be classified as attainment areas under the 2024 national ambient air quality standard (NAAQS) for fine particulate matter (PM_{2.5}), even though air pollution levels at these monitors actually exceeded this standard.

The Exceptional Event Rule is intended to address unusual or naturally occurring events that impact air quality but are not reasonably controllable. The Rule creates a regulatory fiction, in which areas that fail to meet air quality standards are regulated as if they do. Separate from the regulatory consequences, this decision also has public health consequences as residents of those areas are exposed to air pollution at levels known to negatively impact public health. This provision should not be treated lightly and should only be used as a last resort, where the air pollution is clearly attributable to an exceptional event and is beyond Georgia's ability to control. As set forth below, the 2024 EE Demonstrations for prescribed fire smoke fall short in several respects.

These comments focus specifically on the draft demonstrations for prescribed fire in Augusta, Columbus, Macon, and Sandersville, GA.

II. PROTECTING GEORGIANS FROM UNSAFE LEVELS OF PM_{2.5} IS ESSENTIAL FOR PUBLIC HEALTH.

The 2024 EE Demonstrations carry significant consequences for communities living with PM_{2.5} levels above the standard. Exposure to fine particle pollution causes serious health problems.¹ Fine particles in the air we breathe, such as PM_{2.5}, are small enough to penetrate and lodge deep into the lungs, leading to asthma attacks, shortness of breath, fatigue, missed workdays, costly emergency room visits, and more.² In fact, fine particles cause more detrimental health effects than any other pervasive pollutant in the United States—nearly 63 million people nationwide experience unhealthy spikes in daily PM_{2.5} pollution.³

While even short-term exposure to fine particles can lead to these health issues, long-term exposure, which is experienced by people living in areas with high particle levels for many years, can lead to more serious consequences, such as reduced lung function, chronic bronchitis,

¹ *Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter, Fact Sheet*, U.S. ENVIRONMENTAL PROTECTION AGENCY (Feb. 2024), <https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-overview.pdf>.

² *EPA finalizes stronger standards for harmful soot pollution, significantly increasing health and clean air protections for families, workers, and communities*, U.S. ENVIRONMENTAL PROTECTION AGENCY (Feb. 7, 2024), <https://www.epa.gov/newsreleases/epa-finalizes-stronger-standards-harmful-soot-pollution-significantly-increasing#:~:text=By%20strengthening%20the%20annual%20health,to%204%2C500%20premature%20deaths%20and>.

³ *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*, CALIFORNIA AIR RESOURCES BOARD <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=In%20addition%2C%20of%20all%20of,Global%20Burden%20of%20Disease%20Project> (last visited Dec. 18, 2024).

diabetes, cancer, heart attacks, and premature death.⁴ Communities that are most at risk from particle pollution are those already suffering from pre-existing health hardships, and vulnerable populations such as communities of color, low-income communities, children, and older adults.⁵

To combat these health burdens, EPA strengthened the annual health-based NAAQS for PM_{2.5} from 12 to 9 micrograms per cubic meter.⁶ The updated standard will prevent up to 4,500 early deaths and generate as much as \$46 billion in net health benefits in 2032.⁷ To deliver these health benefits to the people of Georgia, EPD must properly identify areas that fail to meet the annual PM_{2.5} NAAQS based on air quality monitoring data.

III. THE LEGAL FRAMEWORK FOR THE EXCEPTIONAL EVENTS RULE.

In implementing the Exceptional Events Rule, the Clean Air Act makes clear that protecting public health is “the highest priority” and necessary measures must be taken to safeguard public health “regardless of the source of the air pollution.”⁸ “The [Clean Air Act] as a whole, and Section 319(b) in particular is premised on the idea that states should undertake reasonable actions to control emissions and protect public health.”⁹ The Exceptional Events Rule is intended to operate “in addition to, rather than in place of, reasonable controls.”¹⁰ To this end, air agencies seeking to exclude air quality data must show that “appropriate and reasonable” steps have been taken to prevent future exceedances of air quality standards.¹¹

Exceptional events are “unusual or naturally occurring events that can affect air quality but are not reasonably controllable using techniques that tribal, state, or local air agencies may

⁴ *Health and Environmental Effects of Particulate Matter (PM)*, U.S. ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> (last updated July 16, 2024).

⁵ *EJScreen Indicators Overview – Particulate Matter 2.5 (PM_{2.5})*, U.S. ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/ejscreen/ejscreen-indicators-overview-particulate-matter-25-pm25#:~:text=Children%2C%20older%20adults%2C%20people%20with,parts%20of%20the%20United%20States> (last updated July 30, 2024).

⁶ *Reconsideration of the National Ambient Air Quality Standards for Particulate Matter*, U.S. ENVIRONMENTAL PROTECTION AGENCY, 89 Fed. Reg. 16,202 (Mar. 6, 2024).

⁷ *Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter, Fact Sheet*, U.S. ENVIRONMENTAL PROTECTION AGENCY (Feb. 2024), <https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-overview.pdf>.

⁸ 42 U.S.C. § 7619(b)(3)(A)(i) and (iv).

⁹ *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. at 68266 (Oct. 3, 2016) (codified in 40 C.F.R. Parts 50 and 51).

¹⁰ *Id.*

¹¹ 40 C.F.R. § 51.930.

implement in order to attain and maintain the [NAAQS].”¹² A “clear causal relationship must exist between the measured exceedances of a national ambient air quality standard and the exceptional event to demonstrate that the exceptional event caused a specific air pollution concentration at a particular air quality monitoring location.”¹³ In determining whether an air agency adequately demonstrated a clear causal relationship, EPA reviews exceptional event demonstrations on a “case-by-case basis using a weight of evidence approach.”¹⁴ Air agencies must demonstrate by the “weight of evidence” in the record that the event caused the specific air pollution concentration at issue.¹⁵

An exceptional events demonstration must include the following elements:

1. A narrative conceptual model that describes 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);
2. 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;
3. Analyses comparing the claimed event-influenced concentration(s) to concentration(s) at the same monitoring site at other times;
4. A demonstration that the event was both not reasonably controllable and not reasonably preventable;
5. A demonstration that the event was caused by human activity that is unlikely to recur at a particular location or was a natural event; and
6. Documentation that the air agency followed the public comment process.¹⁶

With respect to prescribed fire, the Exceptional Event Rule further defines the information that must be provided to show that the prescribed fire smoke is not reasonably controllable or preventable.¹⁷

Finally, 40 C.F.R. § 51.930 provides that air agencies seeking to exclude air quality data due to exceptional events must take appropriate and reasonable actions to mitigate and protect public health from exceedances or violations of NAAQS. At a minimum, the air agency must undertake mitigation efforts including “the implementation of appropriate measures to protect

¹² *Treatment of Air Quality Monitoring Data Influenced by Exceptional Events*, U.S. Environmental Protection Agency, <https://www.epa.gov/air-quality-analysis/treatment-air-quality-monitoring-data-influenced-exceptional-events> (last updated Dec. 19, 2024).

¹³ 42 U.S.C. § 7619((b)(3)(B)(ii).

¹⁴ *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. 68216, 68227 (Oct. 3, 2016).

¹⁵ *Id.*

¹⁶ *Exceptional Events Rule: Update to Frequently Asked Questions*, Environmental Protection Agency, (Nov. 6, 2024) at B.2 https://www.epa.gov/system/files/documents/2024-11/updated-ee-faqs_2024_final_0.pdf.

¹⁷ 40 C.F.R. 50.14(b)(3)

public health from exceedances or violations of ambient air quality standards caused by exceptional events.”¹⁸ Areas with historically documented or known seasonal events that may cause exceedances are required to develop a mitigation plan including steps “to abate or minimize contributing controllable sources of identified pollutants.”¹⁹

IV. THE 2024 EE DEMONSTRATIONS LACK SUFFICIENT INFORMATION TO SUPPORT THE EXCLUSION OF DATA AS EXCEPTIONAL EVENTS.

As set forth below, the 2024 EE Demonstrations lack information required under the Exceptional Event Rule and EPA guidance to demonstrate that the burn activities meet the regulatory definition of prescribed fire. EPD must show that the fires fall within the regulatory definition of prescribed fire and must show a clear causal connection between the fires and the exceedances. The 2024 EE Demonstrations do not meet these requirements.

1. The EE Demonstrations Lack Required Information Regarding the Fire Activity.

EPA guidance makes clear that seven types of information are required to document a prescribed fire for purposes of the Rule: the location of the fire and a physical description of the area, the date of the burn and previous burns, the time the burn was ignited and ended, the number of acres burned, and the dominant fuel type at the site.²⁰ The 2024 EE Demonstrations contain some, but not all, of this required information. Of critical importance to the Exceptional Event Rule, the demonstrations lack information regarding the timing of the fires’ ignition, conclusion, and the predominant fuel type found at the burn site.²¹ Information regarding the timing of the fire is necessary to establish a temporal connection between the burn activity and the air pollution found at the monitor. Information regarding the predominant fuel type is necessary to establish whether prescribed fire is an appropriate land management strategy at the site and, if so, the appropriate burn cycle. Lacking this required and important information, the 2024 EE Demonstrations cannot establish that the challenged fires qualify as exceptional events.

2. The EE Demonstrations Lack Required Information Establishing the Appropriate Burn Cycle For the Site.

The Exceptional Event Rule also requires information regarding the fire return interval appropriate for the site.²² Lacking site-specific information regarding the predominant fuel type at the actual burn locations, the 2024 EE Demonstrations instead seek to replace this site-specific information with generic, landscape-level scientific research describing fire cycles in the

¹⁸ 40 C.F.R. § 51.930(a)(3).

¹⁹ 40 C.F.R. § 51.930(b)(2)(ii)(A).

²⁰ *Exceptional Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations*, Environmental Protection Agency (2019) at 16.

²¹ Prescribed Fire EE Demonstrations at Appendix B1.

²² 40 C.F.R. §§ 50.14(b)(3)(ii)(C) and 50.14(b)(3)(Iii)

Southeast.²³ Although EPA guidance allows scientific literature to be used to establish the appropriate fire cycle in lieu of a land management plan governing the site, this approach is only authorized “on a case-by-case basis.”²⁴ Without more detailed information regarding the vegetation found at the burn sites, there is no basis to discern the appropriate fire cycle for a particular site based on the vegetation present. Relying on landscape-level information of the type provided in the 2024 EE Demonstrations’ approach would effectively negate this requirement entirely and assume that virtually the entire State of Georgia is subject to the same fire cycle.

Further, the 2024 EE Demonstrations fail to establish a general relationship between the natural fire cycle and prior use of fire at the sites. The Exceptional Event Rule does not require the previous use of fire to match the fire cycle suggested in scientific literature,²⁵ but there must be a “general relationship” between two.²⁶ Lacking site specific information regarding prior use of fire at these sites, the 2024 EE Demonstrations reverse-engineer county-level numbers based on the average number of acres burned in a county per year relative to the county’s total size.²⁷ But use of fire in the county does not necessarily correspond with the use of fire at a particular site. This approach provides no information regarding the historic use of prescribed fire at the sites identified in the 2024 EE Demonstrations and cannot establish the “general relationship” required by the Rule.

Further, these calculations produce absurd results. For example the 2024 EE Demonstration for Augusta, GA calculates county-level burn averages of 11.2 years in Richmond County, over 100 years in eight other counties, and 1,783.8 years in Laurens County.²⁸ The 2024 EE Demonstration suggests that all of these counties are subject to the same natural fire cycle, and that these calculated fire cycles all bear a “general relationship” to the appropriate fire cycle. The idea that calculated fire cycles of 11.2 years, 100 years, and 1,783 years are all generally consistent with the same fire natural fire cycle is absurd. EPD’s attempt to reverse engineer the information required for an exceptional event demonstration would effectively read this requirement out of existence.

²³ 2024 EE Demonstrations at Section 4

²⁴ *Exceptional Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations*, Environmental Protection Agency (2019) at 18.

²⁵ *Id.*

²⁶ *Id.* at 18. *See also*, 2024 *FAQ Guidance* at 22-23.

²⁷ 2024 EE Demonstrations at B2.

²⁸ 2024 Augusta EE Demonstration at Table 4.

3. The EE Demonstrations Lack Required Information Demonstrating That the Fires Occurred on Wildlands

The Exceptional Event Rule is limited to prescribed fire occurring predominantly on “wildlands”,²⁹ which is defined as “an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.”³⁰ The exact meaning of wildland is context-sensitive, but is generally intended to mean areas in a natural, uncultivated or uninhabited condition with very limited human impact on the ecosystem.³¹ Relevant here, EPA has suggested that “managed timberlands could be considered wildlands if they have a complex ecosystem affected by only limited human entrance and intervention.”³²

Beyond describing most of the fire events as “silviculture,” the 2024 EE Demonstrations provides no further information regarding conditions on the site.³³ There is no information demonstrating that these sites are in a natural, uncultivated, or uninhabited condition as required by the Rule. Some of these silvicultural fires may have occurred on properties that fail to meet this regulatory definition of wildland. Without more information regarding the predominant vegetation on the site, the governing land management plans, and the purpose of burn activities, the 2024 EE Demonstrations lack sufficient information to support the conclusion that these fires occurred predominantly on wildlands.

4. The EE Demonstrations Do Not Establish That the Fires Are Necessary to Avoid Foregone Benefits.

To satisfy the “not controllable or preventable” criterion, the Exceptional Event Rule requires a demonstration to show specific ecosystem benefits that would be foregone if the fire were not conducted. These “forgone benefits” are the objectives described in a multi-year fire management plan to establish, restore, or maintain a sustainable and resilient wildland ecosystem.³⁴ Once again, lacking site-specific information regarding the purpose of these fires, the 2024 EE Demonstrations seek to satisfy this requirement by discussing prescribed fire’s potential benefits generically, such as benefits to threatened or endangered species.³⁵

²⁹ 40 C.F.R. § 50.1(n), 40 C.F.R. § 50.14(a)(3)(ii)(C), (3)(iii), (4).

³⁰ 40 C.F.R. § 50.1(o). This definition is drawn from the National Wildfire Coordinating Group’s Glossary of Wildland Fire Terminology. *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. at 68248-68249.

³¹ *Id.* at 68249.

³² *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. 68216, 68248

³³ 2024 Exceptional Event Demonstrations at Appx. B1.

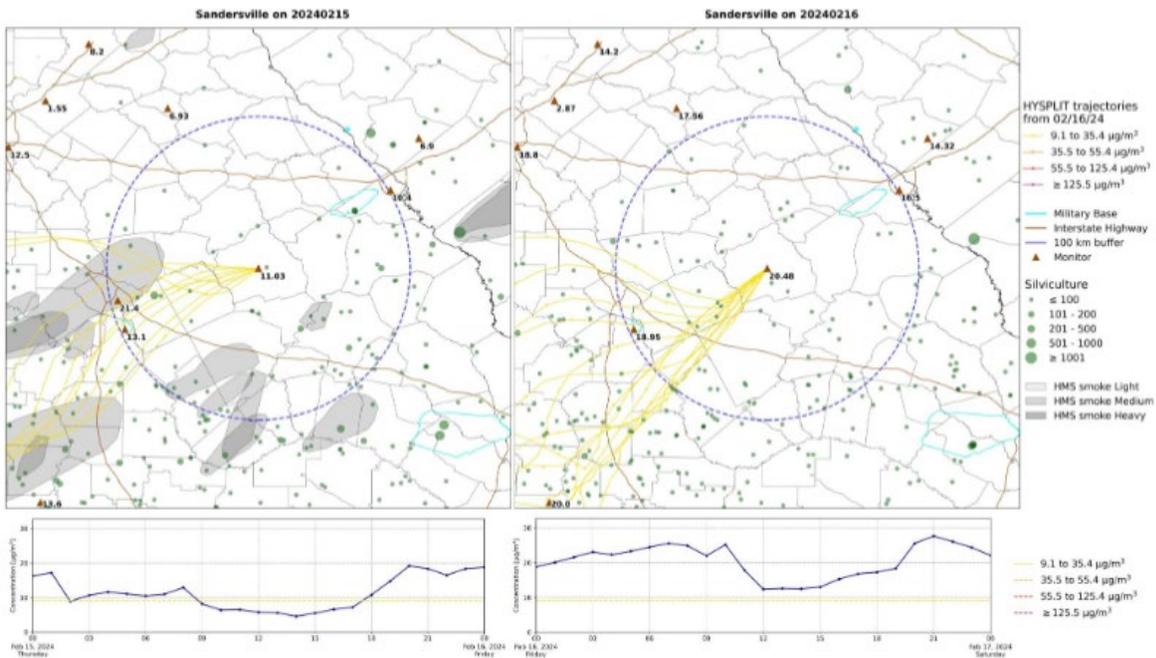
³⁴ 40 C.F.R. § 50.14(b)(3)(ii)(C) and *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. at 68251 and 68256.

³⁵ *See*, 2024 EE Demonstration at Section 5.2.

The 2024 EE Demonstrations lack any information to support the conclusion that these specific fires were intended to establish, restore, or maintain sustainable and resilient wildland ecosystems. To the extent these fires were undertaken for another purpose (such as managing monoculture commercial pine plantations) they do not present foregone ecological benefits and therefore are not “reasonably preventable” for purposes of the Exceptional Event Rule. Further, although the 2024 EE Demonstrations discusses potential benefits to fire-dependent species generally, they contain no information showing that these species are known or expected to occur at the location of the fires.

5. The EE Demonstrations Must Provide Additional Explanation Where HMS Data Does Not Support the Conclusion That Smoke Was Present at the Monitor.

The 2024 EE Demonstrations also fail to provide additional explanation in instances where the information supplied is insufficient to establish the clear causal connection required by the Rule. Specifically, there are several examples where the Hazard Mapping System (HMS) smoke plumes and fire data seem to suggest that little prescribed fire smoke was present at the monitor on the date of the exceedance. One example of this disconnect between the information supplied and the desired conclusion is the HMS data on Feb. 15-16, 2024, in Sandersville, GA.



Other instances where the HMS data appears to show little or no smoke in the vicinity of the monitor are:

- 01.31.2024 - 02.01.2024 (Augusta);
- 02.28.2023 - 03.01.2023 (Columbus);
- 01.14.2022 - 01.15.2022 (Sandersville);

- 11.18.2022 - 11.19.2022 (Sandersville);
- 01.07.2023 - 01.08.2023 (Sandersville);
- 01.28.2023 - 01.29.2023 (Sandersville);
- 02.06.2023 - 02.07.2023 (Sandersville);
- 02.28.2023 - 03.01.2023 (Sandersville);
- 03.08.2023 - 03.09.2023 (Sandersville); and
- 02.15.2024 - 02.16.2024 (Sandersville).

In response to our previous comments, EPD stated that HMS data can be a strong piece of evidence in determining smoke impacts, but the data has limitations. “HMS may show smoke plumes when they do not exist in reality” but also “may show no smoke plumes (due to the presence of clouds) when they do exist in reality.”³⁶

The limits of HMS data are further underscored by research evaluating its accuracy in predicting ground-level smoke. Comparing HMS data to meteorological conditions observed at airports, research found that HMS data is least accurate in predicting ground level conditions on days classified as “low smoke” days in HMS.³⁷ Geographically, HMS modeling was found to be least accurate in the “West South Central, East South Central and South Atlantic” regions.³⁸ In fact, the study recommends that “light smoke plumes should generally be excluded for a binary classification of smoke and non-smoke days at the surface.”³⁹

Given these known limitations, it is incumbent on EPD to provide additional explanation and evidence to support the demonstrations on days where the HMS data does not support the clear causal connection. Even for Tier 1 days, EPA guidance directs that demonstrations must provide supporting evidence showing that prescribed fire smoke was transported to the monitor.⁴⁰ If the HMS data does not support this finding, then EPD must provide additional data or explanation. Given the known limitations of HMS data, EPD cannot rely on this data alone and it is particularly inappropriate where the HMS data does not show the presence of smoke.

³⁶ *Responses to Comments Received on the Draft PM_{2.5} Exceptional Event Demonstrations December 20, 2024 – January 21, 2025*, Georgia Environmental Protection Division <https://epd.georgia.gov/document/document/appendix-h-ee-response-comments-02-07-2025/download>

³⁷ Tianjia. Liu et al., “*Is the smoke aloft? Caveats regarding the use of the Hazard Mapping System (HMS) smoke product as a proxy for surface smoke presence across the United States,*” *Int’l J. of Wildland Fire* (Oct. 2024).

³⁸ *Id.* at 7.

³⁹ *Id.* (emphasis added)

⁴⁰ *PM_{2.5} Wildland Fire Exceptional Events Tiering Document*, U.S. Environmental Protection Agency (Apr. 2024) at 16 <https://www.epa.gov/system/files/documents/2024-04/final-pm-fire-tiering-4-30-24.pdf> .

6. EPD Must Validate Its Conclusions With PM_{2.5} Speciation Data Where Available.

We previously encouraged EPD to utilize PM_{2.5} speciation data to support its conclusion that the exceedances were a result of prescribed fire smoke rather than other pollution sources at locations where that data is available. EPD responded that it “does not feel the speciation data is necessary to support our conclusions.”⁴¹

In evaluating exceptional event demonstrations, EPA uses a “weight of the evidence” approach that considers all relevant evidence and qualitatively weighs the evidence based on its relevance, degree of certainty, persuasiveness, and other considerations appropriate to the pollutant and the type of event.⁴² Here, the monitors at Macon-Allied (13-021-0007), Columbus-Baker (13-215-0012), and Augusta (13-245-0091) are all part Georgia’s Speciation Trends Network. The speciation data available at these monitors could help establish that the PM_{2.5} pollution present at the monitors on the exceedance dates is attributable to prescribed fire. Conversely, this data could also demonstrate that the exceedances do not result from other pollution sources. Given the availability of this information and its direction relevance to the question at hand, a negative inference must be drawn from EPD’s decision to exclude this information in weighing the available evidence.

V. RECOMMENDATIONS MOVING FORWARD

The two sets of exceptional event demonstrations submitted by Georgia in the past year appear to be the most extensive use of this Clean Air Act provision in the statute’s history. Georgia is among the leading states in the country in its use of prescribed fire, and EPD has indicated that it may seek to exclude data for approximately 100 events annually due to the impacts of prescribed fire smoke.⁴³

To be clear, we support the appropriate use of prescribed fire to maintain forest health, prevent wildfire, and create species habitat. We also recognized that the Exceptional Event Rule can be difficult to implement in Georgia given the ways that prescribed fire is utilized here compared to the West. Georgia’s prescribed fire is more widespread, often at a smaller scale, and more often occurs on private property than the large-scale prescribed burns conducted on federal

⁴¹ *Responses to Comments Received on the Draft PM_{2.5} Exceptional Event Demonstrations, December 20, 2024 – January 21, 2025*, Georgia Environmental Protection Division <https://epd.georgia.gov/document/document/appendix-h-ee-response-comments-02-07-2025/download>

⁴² *Treatment of Data Influenced by Exceptional Events*, 81 Fed. Reg. at 68227 and 68230.

⁴³ James Boylan, Implementation of the PM_{2.5} NAAQS in GA, Presentation to 2024 Association of Air Pollution Control Agencies, Fall Meeting (Aug. 29, 2024) at 13. <https://cleanairact.org/wp-content/uploads/2024/12/Attachment-A-PM2.5-NAAQS-in-Georgia-08-29-2024.pdf>

lands in the West. These differences create recordkeeping and documentary challenges for EPD in implementing the Exceptional Events Rule.

However, excluding air pollution data is an extraordinary step that must be used sparingly and only where clearly appropriate. Even if the Rule allows data to be excluded from regulatory consideration, that does not change the fact that Georgians are breathing unhealthy levels of air pollution in these areas. The Exceptional Event Rule should only be used where air pollution truly cannot be avoided or controlled. To that end, we submit the following six recommendations to improve the coordination, permitting, and pollution controls to prevent unnecessary NAAQS exceedances as a result of prescribed burn activities.

1. The recordkeeping related to Georgia's burn permit system should be updated to ensure that all information necessary to support future exceptional event demonstrations is recorded at the time the burn is authorized. Improved documentation and recordkeeping will facilitate EPD's preparation of future demonstrations and ensure that site specific information is available to meet the Rule's requirements. In particular, Georgia's burn permitting system should begin tracking: (i) the dominant vegetation type at the site; (ii) the approximate date of the last prescribed burn at the site; (iii) the land management objectives that would be advanced through the burn; and (iv) the start and end times for the burn.
2. Drawing on the success of the Albany 2.0 program,⁴⁴ EPD should adopt a similar modeling and coordination regime in other areas with recurring prescribed fire pollution. EPD, the Georgia Forestry Commission, and other partners have engaged in a pilot program to better coordinate burn activity in the vicinity of Albany, GA. It appears that this program has allowed high levels of prescribed burn activity to continue with fewer NAAQS exceedances that must be addressed as exceptional events. We encourage EPD to continue this program in Albany and expand its scope to include Columbus, Macon, Sandersville, and Augusta.
3. EPD must better prioritize between burn activities on days when meteorological conditions are unfavorable and air quality standards are likely to be impacted. Every exceedance identified in the 2024 EE Demonstrations includes a combination of silvicultural and non-silvicultural burns.⁴⁵ On average, 9.6% of the burns on the exceedance dates were for non-silvicultural purposes. Removing these non-silvicultural burns may not avoid the exceedances entirely, but their removal would reduce air pollution present at the downwind monitors and free up air pollution load that could otherwise be available for silvicultural burns on these dates.

⁴⁴ <https://talltimbers.org/articles/smoke-management-and-air-quality-in-quail-country/>

⁴⁵ 2024 EE Demonstrations at Section 3 and Appx B1.

On days where burn activity has the potential to result in NAAQS exceedances, EPD and the Georgia Forest Commission should prioritize burn activities and defer lower priority burns until meteorological conditions improve. These lower priority burns may be non-silvicultural burns, silvicultural burns that are less time-sensitive, or land management objectives that can be achieved through non-burn treatments. To the extent certain non-silvicultural burns fall outside the permitting requirements of Georgia's open burning laws, that legal shortcoming must be addressed.

4. A circuit-breaker policy should be instituted to prevent multi-day NAAQS exceedances. EPA guidance suggests that multi-day exceedances should not occur if prescribed fire is properly managed.⁴⁶ Yet Georgia continues to experience multi-day events in recent years. These multi-day events are proof that the current system for coordinating burn permits does not operate correctly in certain circumstances. Additional burn permits should not be issued in the vicinity of a monitor that is already exceeding the NAAQS. Georgia should institute a "circuit breaker" policy, in which no additional burn permits are issued in the vicinity of a monitor that is exceeding, or recently exceeded, a NAAQS.
5. More prescriptive and enforceable smoke management requirements must be adopted. Georgia revised its Smoke Management Plan in May 2025, after the events covered in the current demonstrations. Although it remains to be seen how these changes will impact exceedances and future use of the Exceptional Event Rule, it appears that many of the Smoke Management Plan's key provisions remain aspirational, unclear in their application, and will likely be difficult to enforce.⁴⁷ The Exceptional Event Rule is not intended to excuse pollution from sources – including prescribed fire – that can be better controlled. EPD must adopt measures to ensure that prescribed fire smoke is reduced to

⁴⁶ *Exceptional Events Guidance: Prescribed Fire on Wildland that May Influence Ozone and Particulate Matter Concentrations*, U.S. Environmental Protection Agency (Aug. 2019) at 15, https://www.epa.gov/sites/default/files/2019-08/documents/ee_prescribed_fire_final_guidance_-_august_2019.pdf

⁴⁷ Examples of undefined and aspirational Smoke Management Plan requirements include:

- Areas "especially susceptible to violations of air quality standards will be given special attention to avoid issuance of permits during measured or expected high air pollution periods." (2025 Smoke Management Plan at 6) (emphasis added);
- "When air quality is a concern, forest management practices should be considered in lieu of burning or as a pretreatment to reduce the amount of smoke from the planned burn." (2025 Smoke Management Plan at 10) (emphasis added); and
- "[W]hen EPD's air quality monitors indicate actual exceedances or likely exceedances of air quality standards, EPD and the Georgia Forestry Commission will work together to restrict burning as appropriate." (2025 Smoke Management Plan at 10) (emphasis added).

the maximum extent possible and that burns are coordinated to minimize NAAQS exceedances.

6. Based on recent submissions, Georgia will likely be required to prepare a mitigation plan under 40 C.F.R § 51.930 as an area experiencing recurring exceptional event issues. Rather than delaying this effort, EPD should begin proactively developing this plan and implementing these measures to avoid further public health impacts from prescribed fires that could be better controlled. Beyond public notification and public education, this plan must include “measures to abate or minimize contributing controllable sources of identified pollutants.”⁴⁸ Whether framed as a smoke management plan, a mitigation plan, or under another Clean Air Act requirement, Georgia must take more affirmative measures to control and reduce prescribed fire smoke.

VI. CONCLUSION

We understand the tension that exists between the need to conduct prescribed fire in Georgia’s forests and the impact of the resulting smoke on air quality. We also recognize that Georgia is a leader in the national conversation around prescribed fire and the Exceptional Event Rule. We stand ready to work with EPD to develop a workable solution to this problem and best serves the interests of Georgia residents.

Thank you for your consideration of these comments and your work to protect Georgia’s air quality. Please contact me with any questions or concerns at (404) 521-9900 or bgist@selc.org.

Sincerely,

/s/ Brian Gist
Brian Gist

⁴⁸ 40 C.F.R. § 51.930(b)(2)(ii)(A).