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40 CFR Part 50

Treatment of Data Influenced by Exceptional Events; Proposed Rule

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For the reasons set forth in the preamble, it is proposed that 40 CFR part 50 be amended as follows:

**PART 50—NATIONAL PRIMARY AND SECONDARY AMBIENT AIR QUALITY STANDARDS**

■ 1. The authority citation for part 50 continues to read as follows:

**Authority:** 42 U.S.C. 7401, *et seq.*

■ 2. Amend § 50.1 by:

- a. Revising paragraphs (j) and (k).
- b. Adding paragraphs (m), (n), (o), (p), (q) and (r).

The revisions and additions read as follows:

**§ 50.1 Definitions.**

\* \* \* \* \*

(j) *Exceptional event* means an event and its resulting emissions that affect air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the Administrator in accordance with 40 CFR 50.14 to be an

exceptional event. It does not include stagnation of air masses or meteorological inversions, a meteorological event involving high temperatures or lack of precipitation, or air pollution relating to source noncompliance.

(k) *Natural event* means an event and its resulting emissions, which may recur, in which human activity plays little or no direct causal role. Anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions.

\* \* \* \* \*

(m) *Prescribed fire* is any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific land or resource management objectives.

(n) *Wildfire* is any fire started by an unplanned ignition caused by lightning; volcanoes; other acts of nature; unauthorized activity; or accidental, human-caused actions, or a prescribed fire that has been declared to be a wildfire. A wildfire that predominantly occurs on wildland is a natural event.

(o) *Wildland* means an area in which human activity and development is essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.

(p) *High wind dust event* is an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site.

(q) *High wind threshold* is the minimum wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by a high wind dust event.

(r) *Federal land manager* means, consistent with the definition in 40 CFR 51.301, the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-Campobello International Park Commission.

■ 3. Amend § 50.14, as amended on October 26, 2015, at 80 FR 65452, effective December 28, 2015, as follows:  
 ■ a. Revise paragraphs (a) and (b);  
 ■ b. Revise paragraphs (c)(1), (c)(2)(i) through (v), and (c)(3).

The revisions read as follows:

**§ 50.14 Treatment of air quality monitoring data influenced by exceptional events.**

(a) *Requirements*—(1) *Scope*. (i) This section applies to the treatment of data showing exceedances or violations of any national ambient air quality standard for purposes of the following

types of regulatory determinations by the Administrator:

(A) An action to designate an area, pursuant to Clean Air Act section 107(d)(1), or redesignate an area, pursuant to Clean Air Act section 107(d)(3), for a particular national ambient air quality standard;

(B) The assignment or re-assignment of a classification category to a nonattainment area where such classification is based on a comparison of pollutant design values, calculated according to the specific data handling procedures in 40 CFR part 50 for each national ambient air quality standard, to the level of the relevant national ambient air quality standard;

(C) A determination regarding whether a nonattainment area has attained the level of the appropriate national ambient air quality standard by its specified deadline;

(D) A determination that an area has had only one exceedance in the year prior to its attainment deadline and thus qualifies for a 1-year attainment date extension, if applicable; and

(E) A determination under Clean Air Act section 110(k)(5), if based on an area violating a national ambient air quality standard, that the state implementation plan is inadequate to the requirements of Clean Air Act section 110.

(ii) A State, federal land manager or other federal agency may request the Administrator to exclude data showing exceedances or violations of any national ambient air quality standard that are directly due to an exceptional event from use in determinations by demonstrating to the Administrator's satisfaction that such event caused a specific air pollution concentration at a particular air quality monitoring location.

(A) For a federal land manager or other federal agency to be eligible to initiate such a request for data exclusion, the federal land manager or other federal agency must:

(1) Either operate a regulatory monitor that has been affected by an exceptional event or manage land on which an exceptional event occurred that influenced a monitored concentration at a regulatory monitor; and

(2) Initiate such a request only after discussing such submittal with the State in which the affected monitor is located; and

(B) When initiating such a request, all provisions in this section that are expressed as requirements applying to a State shall, except as noted, be requirements applying to the federal land manager or other federal agency.

(1) A demonstration to justify data exclusion may include any reliable and

accurate data, but must specifically address the elements in paragraphs (c)(3)(iv) and (v) of this section.

(b) *Determinations by the Administrator*—(1) *Generally*. The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that an exceptional event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section.

(2) *Fireworks displays*. The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that emissions from fireworks displays caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Such data will be treated in the same manner as exceptional events under this rule, provided a State demonstrates that such use of fireworks is significantly integral to traditional national, ethnic, or other cultural events including, but not limited to, July Fourth celebrations that satisfy the requirements of this section.

(3) *Prescribed fires*. (i) The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from prescribed fires caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section.

(ii) In addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion:

(A) With respect to the requirement that a prescribed fire be not reasonably controllable, the State must either certify to the Administrator that it has adopted and is implementing a smoke management plan or the State must demonstrate that the burn manager employed the generally applicable basic smoke management practices identified in Table 2 to § 50.14. To make the latter demonstration, the State may rely on a statement or other documentation provided by the burn manager that he or she employed those practices. If an exceptional event occurs using the basic

smoke management practices approach, the State must undertake a review of its approach to ensure public health is being protected.

(B) With respect to the requirement that a prescribed fire be not reasonably preventable, provided the Administrator determines that there is no compelling evidence to the contrary in the record, the State may rely upon and reference a multi-year land or resource management plan for a wildland area with a stated objective to establish, restore and/or maintain a sustainable and resilient wildland ecosystem and/or

to preserve endangered or threatened species through a program of prescribed fire, but also provided that the use of prescribed fire in the area has not exceeded the frequency indicated in that plan.

(iii) Provided the Administrator determines that there is no compelling evidence to the contrary in the record, in addressing the requirements set forth in paragraph (c)(3)(iv)(E) of this section regarding the human activity unlikely to recur at a particular location criterion for demonstrations involving prescribed fires on wildland, the State must

describe the actual frequency with which a burn was conducted, but may rely upon and reference an assessment of the natural fire return interval or the prescribed fire frequency needed to establish, restore, and/or maintain a sustainable and resilient wildland ecosystem contained in a multi-year land or resource management plan with a stated objective to establish, restore, and/or maintain a sustainable and resilient wildland ecosystem and/or to preserve endangered or threatened species through a program of prescribed fire.

TABLE 2 TO § 50.14—SUMMARY OF BASIC SMOKE MANAGEMENT PRACTICES, BENEFIT ACHIEVED WITH THE BSMP, AND WHEN IT IS APPLIED BEFORE, DURING OR AFTER IGNITION OF THE BURN<sup>a</sup>

Basic smoke management practice	Benefit achieved with the BSMP	When the BSMP is applied—before/during/after the burn
Evaluate Smoke Dispersion Conditions.	Minimize smoke impacts .....	Before, During, After.
Monitor Effects on Air Quality .....	Be aware of where the smoke is going and degree it impacts air quality ...	Before, During, After.
Record-Keeping/Maintain a Burn/Smoke Journal. Communication—	Retain information about the weather, burn and smoke. If air quality problems occur, documentation helps analyze and address air regulatory issues.	Before, During, After.
Public Notification	Notify neighbors and those potentially impacted by smoke, especially sensitive receptors.	Before, During.
Consider Emission Reduction Techniques.	Reducing emissions through mechanisms such as reducing fuel loading can reduce downwind impacts.	Before, During, After.
Share the Airshed—Coordination of Area Burning.	Coordinate multiple burns in the area to manage exposure of the public to smoke.	Before, During, After.

<sup>a</sup> Elements of these BSMP could also be practical and beneficial to apply to wildfires for areas likely to experience recurring wildfires.

(4) *Wildfires.* The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator’s satisfaction that emissions from wildfires caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Provided the Administrator determines that there is no compelling evidence to the contrary in the record, the Administrator will determine every wildfire occurring predominantly on wildland to have met the requirements identified in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion.

(5) *High wind dust events.* (i) The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator’s satisfaction that emissions from a high wind dust event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section

provided that such emissions are from high wind dust events.

(ii) The Administrator will consider high wind dust events to be natural events in cases where windblown dust is entirely from undisturbed natural lands or where all anthropogenic sources are reasonably controlled as determined in accordance with paragraph (b)(7) of this section.

(iii) The Administrator will accept a high wind threshold of a sustained wind of 25 mph for areas in the States of Arizona, California, Colorado, Kansas, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming provided this value is not contradicted by evidence in the record at the time the State submits a demonstration.

(iv) In addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably preventable criterion, the State shall not be required to provide a case-specific justification for a high wind dust event.

(v) With respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section, dust controls on an anthropogenic source shall be considered reasonable in any case in which the controls render the

anthropogenic source as resistant to high winds as a natural undisturbed land area. The Administrator may determine lesser controls reasonable on a case-by-case basis.

(vi) For remote, large-scale, high-energy and/or sudden high wind dust events, such as “haboobs” in the southwest, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonable controllable criterion of paragraph (c)(3)(iv)(D) of this section.

(6) *Determinations with respect to event aggregation and multiple national ambient air quality standards for the same pollutant.* (i) Where a State demonstrates to the Administrator’s satisfaction that for national ambient air quality standards with averaging or cumulative periods longer than 24-hours the aggregate effect of events occurring on different days has caused an exceedance or violation, the Administrator shall determine such collective data to satisfy the requirements in paragraph (c)(3)(iv)(B) of this section regarding the clear causal relationship criterion and otherwise satisfies the requirements of this section.

(ii) The Administrator shall accept as part of a demonstration for the clear causal relationship in paragraph (c)(3)(iv)(B) of this section, a State's comparison of a 24-hour concentration of any national ambient air quality standard pollutant to the level of a national ambient air quality standard for the same pollutant with a longer averaging period.

(7) *Determinations with respect to the not reasonably controllable or preventable criterion.*

(i) The Administrator shall determine that an event is not reasonably preventable if the State shows that reasonable measures to prevent the event were applied at the time of the event.

(ii) The Administrator shall determine that an event is not reasonably controllable if the State shows that reasonable measures to control the impact of the event on air quality were applied at the time of the event.

(iii) The Administrator shall assess the reasonableness of available controls for anthropogenic sources based on information available as of the date of the event.

(iv) Except where a State is obligated to revise its state implementation plan, the Administrator shall consider enforceable control measures implemented in accordance with a state implementation plan, approved by the EPA within 5 years of the date of a demonstration submittal, that address the event-related pollutant and all sources necessary to fulfill the requirements of the Clean Air Act for the state implementation plan to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to event-related emissions.

(v) The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored. In the case of a tribe with treatment as a state status with respect to exceptional events requirements, the tribe's jurisdictional boundaries for purposes of requiring or directly implementing emission controls apply. In the case of a federal land manager or other federal agency submitting a demonstration under the requirements of this section, the jurisdictional boundaries that apply are those of the State or the tribe depending on which has jurisdiction over the area where the event has occurred.

(c) *Schedules and procedures*—(1) Public notification. (i) All States and,

where applicable, their political subdivisions must notify the public promptly whenever an event occurs or is reasonably anticipated to occur which may result in the exceedance of an applicable air quality standard.

(ii) [Reserved]

(2) *Initial notification of potential exceptional event.* (i) A State shall notify the Administrator of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process as follows:

(A) The State and the appropriate EPA regional office shall engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data may affect a regulatory determination and to discuss whether the State should develop and submit an exceptional events demonstration according to the requirements in this section;

(B) For data that may affect an anticipated regulatory determination or where circumstances otherwise compel the Administrator to prioritize the resulting demonstration, the Administrator shall respond to a State's Initial Notification of Potential Exceptional Event with a due date for demonstration submittal that considers the nature of the event and the anticipated timing of the associated regulatory decision;

(C) The Administrator may waive the Initial Notification of Potential Exceptional Event process on a case-by-case basis.

(ii) The data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until, following the State's submittal of its demonstration pursuant to paragraph (c)(3) of this section and the Administrator's review, the Administrator notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS database.

(iii) [Reserved]

(iv) [Reserved]

(v) [Reserved]

\* \* \* \* \*

(3) *Submission of demonstrations.* (i) Except as allowed under paragraph (c)(2)(vi) of this section, a State that has flagged data as being due to an exceptional event and is requesting

exclusion of the affected measurement data shall, after notice and opportunity for public comment, submit a demonstration to justify data exclusion to the Administrator according to the schedule established under paragraph (c)(2)(i)(B).

(ii) [Reserved]

(iii) [Reserved]

(iv) The demonstration to justify data exclusion must include:

(A) 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);

(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 identified in Table 3 to § 50.14 comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times consistent with Table 3 to § 50.14 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.

(v) With the submission of the demonstration containing the elements in paragraph (c)(3)(iv) of this section, the State must:

(A) Document that the public comment process was followed and that the comment period was open for a minimum of 30 days, which could be concurrent with the Administrator's review of the associated demonstration provided the State can meet all requirements in this paragraph;

(B) Submit the public comments it received along with its demonstration to the Administrator; and

(C) Address in the submission to the Administrator those comments disputing or contradicting factual evidence provided in the demonstration.

(vi) Where the State has submitted a demonstration according to the requirements of this section and the Administrator has reviewed such demonstration and requested additional evidence to support one of the elements in paragraph (c)(3)(iv) of this section, the State shall have 12 months from the date of the Administrator's request to submit such evidence. At the

conclusion of this time, if the State has not submitted the requested additional evidence, the Administrator will consider the demonstration to be

inactive and will not pursue additional review of the demonstration. After a 12-month period of inactivity, if a State desires to pursue the inactive

demonstration, it must reinitiate its request to exclude associated data by following the process beginning with paragraph (c)(2)(i) of this section.

TABLE 3 TO §50.14. EVIDENCE AND ANALYSES FOR THE COMPARISON TO HISTORICAL CONCENTRATIONS

Historical concentration evidence	Types of analyses/supporting information	Required or optional?
1. Comparison of concentrations on the claimed event day with past historical data.	<p><i>Seasonal</i> (appropriate if exceedances occur primarily in one season, but not in others).</p> <ul style="list-style-type: none"> <li>Use all available seasonal data over the previous 5 years (or more, if available).</li> <li>Discuss the seasonal nature of pollution for the location being evaluated.</li> <li>Present monthly maximums of the NAAQS relevant metric (e.g., maximum daily 8-hour average ozone or 1-hr SO<sub>2</sub>) vs monthly or other averaged daily data as this masks high values.</li> </ul> <p><i>Annual</i> (appropriate if exceedances are likely throughout the year).</p> <ul style="list-style-type: none"> <li>Use all available data over the previous 5 years (or more, if available).</li> </ul>	<i>Required</i> seasonal and/or annual analysis (depending on which is more appropriate).
2. Comparison of concentrations on the claimed event day with a narrower set of similar days.	<p><i>Seasonal and Annual Analyses.</i></p> <ul style="list-style-type: none"> <li>Provide the data in the form relevant to the standard being considered for data exclusion.</li> <li>Label “high” data points as being associated with concurred exceptional events, suspected exceptional events, other unusual occurrences, or high pollution days due to normal emissions.</li> <li>Describe how emission control strategies have decreased pollutant concentrations over the 5-year window, if applicable.</li> <li>Include comparisons omitting known or suspected exceptional events points, if applicable.</li> </ul>	<i>Optional</i> analysis.
3. Percentile rank of concentration when compared to annual data. <sup>b</sup>	<ul style="list-style-type: none"> <li>Include neighboring days at the same location (e.g., a time series of two to three weeks) and/or other days with similar meteorological conditions (possibly from other years) at the same or nearby locations with similar historical air quality along with a discussion of the meteorological conditions during the same timeframe.<sup>a</sup></li> <li>Use this comparison to demonstrate that the event caused higher concentrations than would be expected for given meteorological and/or local emissions conditions.</li> </ul>	<i>Required</i> analysis when comparison is made on an annual basis (see item #1).
4. Percentile rank of concentration relative to seasonal data. <sup>b</sup>	<ul style="list-style-type: none"> <li>Provide the percentile rank of the event-day concentration relative to all measurement days over the previous 5 years to ensure statistical robustness and capture non-event variability over the appropriate seasons or number of years.<sup>c</sup></li> <li>Use the daily statistic (e.g., 24-hour average, maximum daily 8-hour average, or maximum 1-hour) appropriate for the form of the standard being considered for data exclusion.</li> <li>Provide the percentile rank of the event-day concentration relative to all measurement days for the season (or appropriate alternative 3-month period) of the event over the previous 5 years.</li> <li>Use the same time horizon as used for the percentile rank calculated relative to annual data, if appropriate.</li> </ul>	<i>Required</i> analysis when comparison is made on a seasonal basis (see item #1).

<sup>a</sup> If an air agency compares the concentration on the claimed event day with days with similar meteorological conditions from other years, the agency should also verify and provide evidence that the area has not experienced significant changes in wind patterns, and that no significant sources in the area have had significant changes in their emissions of the pollutant of concern.

<sup>b</sup> The EPA does not intend to identify a particular historical percentile rank point in the seasonal or annual historical data that plays a critical role in the analysis or conclusion regarding the clear causal relationship.

<sup>c</sup> Section 8.4.2.e of appendix W (proposed revisions at 80 FR 45374, July 29, 2015) recommends using 5 years of adequately representative meteorology data from the National Weather Service to ensure that worst-case meteorological conditions are represented. Similarly, for exceptional events purposes, the EPA believes that 5 years of ambient air data, whether seasonal or annual, better represent the range of “normal” air quality than do shorter periods.