

May 19, 2011

The Honorable Lisa P. Jackson  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20460

Dear Administrator Jackson:

The Local Government Advisory Committee (LGAC) appreciates having the opportunity to work with you and the US EPA on a wide range of issues of interest and concern to local governments. More specifically, the Committee is particularly grateful to have the opportunity to comment on the Draft Guidance for implementing the Exceptional Events Rule (EER). The LGAC has reviewed and considered the policy, and pursuant to its charter, the Committee would like to offer the following comments regarding the draft guidance.

To meet the criteria for exceptional events, a tremendous amount of analysis on the part of the local government is required with no guarantee of EPA acceptance. The process takes considerable time, and EPA has a huge backlog of Exceptional Event demonstration packages and requests. Each demonstration package takes approximately 150 – 400 hours to review and document, and EPA Region IX currently has around 100 submitted demonstration packages awaiting review. This places extensive financial and time-consuming burdens on local governments, which are already under the pressures of today's economy. In order to prove a "clear causal relationship," a requirement under EER, local jurisdictions in many cases must purchase their own Particulate Matter (PM) monitors to assist in documenting the required causal relationship.

The bar for exceptional event demonstration is very high for ozone exceedances, partly due to the fact that most wildfires occur during the high ozone season and under meteorological conditions that are conducive to the formation of higher levels of ozone, as well as being optimal for the propagation of wildfires.

With the pending reviews of the PM and 8-hour ozone standards, local governments are concerned that if the current standards are lowered, Exceptional Event demonstrations would become more important to keep an area in attainment status.

We respectfully request that EPA simplify the Exceptional Event process and reduce the amount of analysis required. Furthermore, the Committee asks EPA to develop additional guidance to define more clearly what issues need to be addressed in the demonstration. There needs to be a clear and concise written guidance document, implemented consistently both regionally and nationally, which includes: 1) U.S. EPA straightforward technical review based on the "Event" itself and the analysis of air quality and weather conditions to show that the elements justifying the exclusion are met; 2) A clearly defined EPA position on what would be deemed an

acceptable Exceptional Event demonstration package in both scope and content; 3) Streamlined Documentation to ensure review in a timely manner; 4) Establishment of default condition assumptions (e.g., wind speed greater than X mph) for which an exception is automatically granted.

The Committee appreciates the reforms the Agency is considering to streamline the Exceptional Event process, yet there are still outstanding issues for local governments that need attention, as outlined above. The Committee appreciates the opportunity to provide input to the Agency at this time, and looks forward to continuing its efforts throughout the review process of EER.

Sincerely,

Mayor Heather McTeer Hudson  
LGAC Chair

Supervisor Salud Carbajal  
Air, Climate, & Energy Workgroup Chair

## Overview of Draft Guidance Documents on the Implementation of the Exceptional Events Rule

This overview document and its attachments<sup>1</sup> clarify key provisions of the 2007 Exceptional Events Rule (EER) to respond to questions and issues that have arisen since the rule was promulgated. The draft guidance in this document and the attachments, along with examples of approved demonstrations on EPA's website<sup>2</sup>, are provided to facilitate review of these materials by outside parties, to help ensure that EPA's final guidance provides an efficient and effective process to make determinations regarding air quality data affected by events. Please direct comments on these draft guidance documents to [EEGuidanceComments@epa.gov](mailto:EEGuidanceComments@epa.gov) by June 30, 2011. For guidance-related questions, please contact Beth Palma at 919-541-5432.

These draft guidance materials identify the four independent criteria on which exclusion of event-affected data depends, describe the administrative process and associated timing for submittal and review of demonstrations, provide answers to frequently asked questions, and provide previously reviewed demonstrations and best practice components. EPA recognizes the challenges that states face in preparing exceptional event demonstration packages. Exceptional events are varied with differing characteristics and must be addressed on a case-by-case basis making the development of general guidance with bright lines difficult. Neither states<sup>3</sup> nor regions want to prepare or review numerous versions of a single event demonstration package.

This draft guidance overview document and its attachments are based on the following principles:

1. States should not be held accountable for exceedances due to events that were beyond their control at the time of the event.
2. It is desirable to implement reasonable controls to protect public health.<sup>4</sup>
3. Clear expectations will enable EPA and other air agencies to better manage resources related to the exceptional events process.

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<sup>1</sup> Attachment 1, "Draft Exceptional Events Rule Frequently Asked Questions" (the draft Q&A document) and Attachment 2, "Draft Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule" (the draft High Winds Guidance document).

<sup>2</sup> Additional information and examples of exceptional event submissions and best practice components can be found at EPA's Exceptional Events website locate at <http://www.epa.gov/ttn/analysis/exevents.htm>.

<sup>3</sup> This and all subsequent references to "state" are meant to include state, local and tribal agencies responsible for implementing the EER.

<sup>4</sup> With respect to exceptional events, Section 319 of the Clean Air Act states the following guiding principles (among others);

(i) the principle that protection of public health is the highest priority

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(iv) the principle that each State must take necessary measures to safeguard public health regardless of the source of the air pollution

## **Exceptional Event Rule Provisions**

On March 22, 2007, EPA promulgated the “Treatment of Data Influenced by Exceptional Events; Final Rule” (72 FR at 13560) pursuant to the 2005 amendment of Clean Air Act (CAA) Section 319. This rule, known as the Exceptional Events Rule, superseded EPA’s previous natural events guidance and interim fire policy documents.<sup>5</sup> The EER created a regulatory process codified at 40 CFR parts 50 and 51 (50.1, 50.14 and 51.930). These regulatory sections contain definitions, procedural requirements, requirements for state demonstrations, and criteria for EPA approval for the exclusion of air quality data from regulatory decisions under the EER.

The definition of an exceptional event at 40 CFR §50.1(j) repeats the CAA definition which provides that an exceptional event is one that affects air quality, is not reasonably controllable or preventable, and is caused by human activity that is unlikely to recur at a particular location or a natural event. Additional requirements in 40 CFR §50.14(a)(2) and (b)(1) identify that a state must demonstrate “a clear causal relationship between the measured exceedance or violation of such standard and the event” and that “an exceptional event caused a specific air pollution concentration in excess of one or more national ambient air quality standards.” The rule further requires at 40 CFR §50.14(c)(3)(iv) that the demonstration to justify data exclusion shall provide evidence that the event is associated with a measured concentration in excess of normal historical fluctuations, including background, and evidence that there would have been no exceedance or violation but for the event.

## **Treatment of Technical Criteria for Exclusion of Data Affected by Events**

When considered together, the EER provisions summarized above identify the following six elements that states must address when requesting that EPA exclude event-related concentrations from regulatory determinations:

- the event affected air quality
- the event was not reasonably controllable or preventable
- the event was caused by human activity that is unlikely to recur at a particular location, or was a natural event
- there exists a clear causal relationship between the specific event and the monitored concentration
- the event is associated with a measured concentration in excess of normal historical fluctuations including background

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<sup>5</sup>Previous guidance and policy documents that either implied or documented the need for identifying data affected by an exceptional event include:

- i) “Guideline for Interpretation of Air Quality Standards,” U.S. EPA, OAQPS No. 1.2-008, Revised February 1977.
- ii) “Guideline On the Identification and Use of Air Quality Data Affected by Exceptional Events” (the Exceptional Events Policy), U.S. EPA, OAQPS, July 1986.
- iii) “Areas Affected by PM10 Natural Events” (the PM10 Natural Events Policy), memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, to EPA Regional Offices, May 30, 1996.
- iv) “The Interim Air Quality Policy on Wildland and Prescribed Fires” (the Interim Fire Policy), memorandum from Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, May 15, 1998.
- v) “Guideline on Data Handling Conventions for the PM NAAQS,” U.S. EPA, OAQPS, EPA-454/R-98-017, December 1998.

- there would have been no exceedance or violation but for the event

In reviewing exceptional events demonstration packages, EPA has found that the following EER elements, along with historical fluctuations, play a significant role in the states' supporting documentation:

1. not reasonably controllable or preventable
2. if the event was caused by human activity, that human activity is unlikely to recur at a particular location<sup>6</sup>
3. clear causal relationship between specific event and monitored concentration
4. no exceedance or violation but for the event<sup>7</sup>

As described in the draft guidance documents, EPA's technical review of a demonstration package would therefore focus on these elements. While the EER requires and EPA expects complete demonstration packages to contain narrative and evidence supporting all six elements, EPA's position would be that these four elements represent distinct facts that states must demonstrate for EPA to concur on an event claim.<sup>8</sup> Note that if an event is natural then the second element is not considered in a demonstration review. In the case of an event that is initiated by a natural process, such as a volcano or high wind dust event, the event would be considered a natural event if sources are entirely natural or contributing anthropogenic sources are reasonably controlled.<sup>9</sup> This concept is explained in more detail in Attachment 2, the draft High Winds Guidance document.

EPA recognizes the inherent links between all six elements and expects that some sections of a demonstration package (e.g., affects air quality, natural event) may repeat or refer to other sections of the demonstration package (e.g., clear causal relationship, but for). Further, each potential event can have varied and differing characteristics, and thus would usually require a case-specific demonstration and evaluation. Therefore, the EPA would use a "weight of evidence" approach in evaluating each element within an exceptional event demonstration package.

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<sup>6</sup> The remaining part of this criterion, "or a natural event" is intentionally omitted here.

<sup>7</sup> Criteria 1, 3, and 4 on this list, along with historical fluctuations, are considered "independent elements" in the draft High Winds Guidance document.

<sup>8</sup> While the "historical fluctuations element" is considered an independent element, it also plays an important role in the "clear causal relationship" and "no exceedance but for" demonstrations. EPA has not set pass/fail criteria for this element but will use a weight of evidence approach to assess each demonstration on a case-by-case basis. The state's role in satisfying this element is to provide analyses and statistics comparing the event-affected concentration to normal historical fluctuations. EPA will use the information provided by the state to determine whether the event was in excess of normal historical fluctuations. "Normal historical fluctuations" will generally be defined by those days without events for the previous years. It is not the state's role to show that the event was above a particular threshold since EPA is not establishing a threshold. EPA acknowledges that natural events can recur and still be eligible for exclusion under the EER; therefore, events do not necessarily have to be rare to satisfy this element. EPA expects that failure of the "historical fluctuations" element indicates likely failure for "clear causal relationship" and/or "no exceedance but for" as well, and thus does not expect that demonstration submittal non-concurrence will result from failure of this element alone.

<sup>9</sup> Human activity would be considered to have played little or no *direct* causal role in causing the entrainment of the dust by high wind if contributing anthropogenic sources of dust are reasonably controlled, and thus the event would be considered a natural event. If anthropogenic sources contributed significantly to a measured concentration and these same emissions from anthropogenic sources are affected by an event and are reasonably controllable but did not have those reasonable controls applied at the time of the event, then the event would not be considered a natural event.

In the draft guidance documents, the requirement that the event was not reasonably controllable or preventable, which is part of the definition of an exceptional event in both the Clean Air Act and the EER, would mean that if a set of control measures *could reasonably have been in place* for contributing sources at the time of the event, then they *must* have been in place for the event to qualify as an exceptional event under the EER. Among other factors to consider, reasonableness would need to be judged in light of the technical information available to the state at the time the event occurred. EPA would expect for nonattainment areas to already have the technical information needed to reasonably control sources in their jurisdiction. It would be important that each demonstration package address the question of reasonable controls. As with the other elements, whether an event was not reasonably controllable or preventable would be evaluated on a case-by-case basis. In general, reasonable controls would not include any control on emissions-generating activity outside of the state or tribal boundaries of the state (or tribal lands) within which the concentration at issue was monitored.

### **Timing of EER Demonstration Package Submittal and Review**

EPA understands that the initial identification of data affected by exceptional events and the subsequent preparation, submittal, and review of demonstration packages is a resource intensive process. Delays in processing and making decisions on submitted packages increase the workload for both the submitting agency and EPA and create regulatory uncertainty. In addition, the backlog of pending actions makes retrieval of data to support new submittals potentially more difficult. Further, states and EPA often face timelines by which they must make regulatory decisions that can be affected by the inclusion or exclusion of event-affected data.

EPA will work with states as they prepare complete demonstration packages that meet the requirements of the EER. In an effort to streamline this identification, preparation, submittal, and review process, EPA has developed the following draft guidelines.

1. **Identification of data affected by exceptional events in AQS** – Although states may flag any data in AQS that they wish to flag, EPA encourages states to flag only data that might have a regulatory consequence and for which an approvable demonstration is likely. Should states wish to flag values for informational purposes, EPA prefers that they use the AQS flags intended for this purpose.
2. **State submittal of letter of intent to submit a package (optional)** – EPA recommends that states intending to submit a demonstration package for flagged data in AQS alert EPA of their intention within 12 months of the event occurrence. This action will prompt EPA to notify the state whether and when EPA plans to act on the claimed exceptional event. This initial notification can assist both the state and EPA in the planning and prioritization process.
3. **EPA response to state letter of intent** – EPA anticipates responding to the state's letter of intent within 60 days of receipt informing the state of EPA's intended review timeframe if needed for regulatory action.

4. **State submittal of exceptional event demonstration packages** – EPA encourages states to submit the optional letter of intent. States choosing not to follow this more formal planning recommendation are still encouraged to contact their EPA Regional Office to alert it of the forthcoming demonstration submittal. Submitting agencies that believe their demonstration packages are tied to near-term regulatory actions should submit their demonstration packages well in advance of the regulatory deadline. States should also identify the relationship between the exceptional event-related flagged data and the anticipated regulatory action in the cover letter that accompanies their initial submittal package to the reviewing EPA Regional Office.
5. **EPA prioritization of submitted demonstration packages** – EPA will generally give priority to exceptional event determinations that may affect near-term regulatory decisions, such as SIP submittal actions, National Ambient Air Quality Standards (NAAQS) designations, and clean data findings, and may defer review of demonstration packages that are not associated with near-term regulatory decisions.
6. **EPA review of prioritized demonstration packages** – EPA generally intends to conduct its initial review of a submitted exceptional event demonstration package within 120 days of receipt. During this time, EPA will generally determine whether to review the package in the near-term or to defer review. For those packages that are reviewed in the near-term, EPA will generally also assess completeness. Following this initial review, EPA will generally send a letter to the submitting agency that includes the status of review. For those packages that EPA will review in the near-term, EPA will generally include the following: a completeness determination and/or a request for additional information, a deadline by which the supplemental information should be submitted (if applicable), and an indicator of the timing of EPA's final review.<sup>10</sup> EPA encourages states to provide supplemental information if needed and requested by EPA. EPA anticipates a 60-day response time for states to provide additional requested information. EPA intends to make a decision regarding event concurrence within 18 months of submittal of a complete package, or sooner if required by a near-term regulatory action. Determinations on Exceptional Event demonstrations do not constitute final agency action until they are relied upon in a regulatory decision such as a finding of attainment or nonattainment which will be conducted through notice-and-comment rulemaking procedures. EPA does not generally intend to consider additional information after the concurrence decision has been made, except in the context of such a rulemaking procedure.

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<sup>10</sup> If an agency did not send a letter of intent to submit a demonstration package, then EPA may respond to the agency with a letter indicating that EPA intends to defer review for the near-term. In this case, EPA will generally not address completeness of the package or timing of final review.

## **Exceptional Events Rule Frequently Asked Questions Document (Attachment 1)**

The “Draft Exceptional Events Rule Frequently Asked Questions” document (the draft Q&A document) provides draft responses to questions that have arisen since the EER was promulgated. The questions are grouped into six broad areas. EPA encourages those involved in flagging data and preparing demonstration packages to review all the draft questions and answers, and to provide input regarding their usefulness and appropriateness and regarding additional questions which need answers. The following bullets identify key points of interest in the draft Q&A document:

- A natural event would not have to be infrequent to qualify as an exceptional event under the EER. Frequent events with natural triggers that have a contribution from anthropogenic activities that are reasonably controlled could be eligible “exceptional” events, provided the events meet the demonstration requirements for the technical criteria.
- The EER does not prohibit states from flagging individual concentration values below the level of the NAAQS. However, in general, only such data that contribute to a violation of the NAAQS are excludable. Questions 29-31 of the attached Q&A document describe the few, limited situations in which concentration values below the level of the NAAQS contribute to violations of the NAAQS.
- Whether an event is associated with a measured concentration “in excess of normal historical fluctuations” would be evaluated on a weight of evidence basis. The comparison of the measured concentration to normal historical concentrations would also influence how much information is needed to successfully meet other technical elements. For example, when the observed concentration is high compared to historical concentrations, EPA may require less additional evidence to demonstrate the “but for” finding. The draft Q&A document provides recommendations for showing how the observed concentration compares to the distribution of historical concentrations.
- Question 6 in the draft Q&A document describes types of evidence that could be submitted as part of a demonstration showing that an ozone exceedance would not have occurred but for the effect of a fire event. In particular, statistical or photochemical dispersion model predictions of the ozone concentration that would have occurred in the absence of the fire would be a relevant type of evidence, provided the demonstration package is transparent about the technical basis for the model and its uncertainties.
- When the available evidence indicates that there would have been an exceedance of a NAAQS even in the absence of the event, the event is not “exceptional” under the EER because the “no exceedance but for” criterion is not satisfied. Yet, this event-related concentration could still affect the design value for an area. If the event-affected design value is used for an ozone nonattainment area at the time of classification under Subpart 2 of Part D of Title I of the CAA, then it may seem that the area should be classified into a higher category (e.g., serious instead of moderate). Similarly, a state incorporating the event-related concentration in a design value used for an attainment demonstration might seem to need more emission reductions to attain the NAAQS than is actually the case.

Under the draft guidance, states faced with either of these situations could document any analysis of the event and justify any special approach to the treatment of such concentration data as part of their attainment demonstration or area classification. (See Question 13 of the Q&A document for additional information.)

- To remove any possible confusion, the passages of the preamble that were declared to be a legal nullity by the court that reviewed the EER are specifically identified in Question 20 in the draft Q&A document. While states cannot rely solely on these passages as EPA guidance on interpretation of the EER, this draft guidance overview document and its attachments are consistent with those sections.

### **High Winds Guidance Document (Attachment 2)**

The attached “Draft Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule” (the High Winds Guidance document) when finalized will be a resource for states when flagging data and preparing demonstrations packages for high wind dust events that have affected PM<sub>10</sub> and PM<sub>2.5</sub>. The draft document applies the provisions of the EER and the general guidance conveyed in this draft guidance overview document and in the draft Q&A document to the particular situation of a high wind dust event. While the document is specific to high wind dust events, it outlines how EPA intends to implement the preparation and review process for exceptional events and, therefore, may have relevance for agencies that do not deal with high wind dust events. The following are some of the highlights of the draft High Winds Guidance document:

- In nonattainment areas, a reference point for considering what constitutes reasonable control of wind-blown dust during high wind events would be the set of measures that are identified as RACM or BACM in the approved SIPs of other areas with similar wind-blown dust conditions, depending on area classification. USDA best management practices for soil conservation would also be considered if applicable to the dust source. Also, RACM or BACM measures in an area’s own approved SIP should be considered part of the reasonable set. However, the assessment of whether an event was not reasonably controllable will be made on a case-by-case basis considering all the facts.
- Reasonable controls generally would not include efforts to control wind-blown dust from undisturbed natural landscapes or previously disturbed landscapes that are being allowed to return to natural conditions.
- For purposes of qualifying for the exclusion of data affected by initial (non-recurring) wind events with sustained wind speeds above 25 miles per hour (or above another threshold determined to be appropriate for a particular area), the implementation of reasonable controls applied to disturbed landscapes and other anthropogenic sources of dust could be less important because: (1) the contribution from undisturbed lands is likely to be high and, (2) at such high wind speeds many available controls may have been ineffective in significantly reducing wind-generated dust emissions.

- EPA would encourage states to work with EPA Regional Offices to develop prospective high wind action plans, which need not be incorporated into the SIP, as a way to develop a mutual understanding of what controls are reasonable to implement in light of foreseeable high wind conditions.

### **On-line Availability of Exceptional Event Packages and Best Practice Components**

To assist states in deciding what type and how much evidence/technical analysis to include in their demonstration packages, EPA has developed a public website at <http://www.epa.gov/ttn/analysis/exevents.htm> that contains demonstration packages that have been approved by EPA and links to best-practice components. This website will evolve as additional demonstration packages are submitted and reviewed.

### **Draft Guidance Documents Still under Development**

EPA is currently developing a separate draft guidance document addressing the preparation of demonstrations to support wildfire-related event claims, including events that may have affected ozone concentrations. We are also developing a draft document that when finalized would replace the Interim Fire Policy, that will contain additional guidance on basic smoke management practices for prescribed fires. We expect to provide opportunities for stakeholder input on these draft documents.

### **Conclusion**

EPA expects to adhere to the draft guidance provided in this overview document and its attachments during the review and document finalization process, because we believe it is consistent with the Exceptional Events rule and the guidance already provided in the preamble to the rule. Although EPA hopes to formalize the concepts in these guidance documents by issuing final guidance, EPA has not excluded the possibility of issuing rule revisions.

EPA's Office of Air Quality Planning and Standards and EPA's Regional Offices are available for assistance and consultation. Questions and comments on this guidance may be directed to [EEGuidanceComments@epa.gov](mailto:EEGuidanceComments@epa.gov).

#### **Attachments:**

1. Draft Exceptional Events Rule Frequently Asked Questions
2. Draft Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule

WESTERN STATES AIR RESOURCES COUNCIL



September 11, 2009

Gina McCarthy, Assistant Administrator  
Office of Air and Radiation  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue  
Washington, D.C. 20004

Subject: Recommendations to improve implementation of the Exceptional Events Rule

Dear Ms. McCarthy:

The Western States Air Resources (WESTAR) Council, an association of fifteen western state air quality management agencies, offers the enclosed recommendations related to the implementation of rules governing the treatment of data influenced by exceptional events – 40 CFR Parts 50 and 51, typically referred to as the Exceptional Events Rule. This rule is especially important in western states where we face significant air quality challenges brought on by chronic wildfires and dust storms. Improvements in the implementation of this important rule would benefit EPA, state and local agencies, and the public by focusing scarce air quality management resources on problems we can solve instead of problems over which we have little or no control.

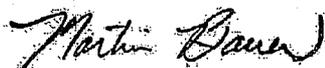
Many of the problems that have been encountered could be resolved through simple rule revisions while others could be addressed through procedures that would differentiate those cases where expeditious concurrence is warranted from those cases where more rigorous justification is needed. In those cases where additional justification is needed, it is critical that EPA provide early feedback on the elements of an exceptional events request that are either misunderstood or that need further explanation.

Finally, states will always be limited to available data to justify their exceptional events requests. It is unlikely that the available data will be as complete and comprehensive as

would be needed to provide indisputable evidence in support of an exceptional events request. Nevertheless, decisions must be made and it is in all of our interests that those decisions are made on a timely basis.

Thank you in advance for your consideration of these recommendations. If you have any questions or comments, please contact Dan Johnson, WESTAR Executive Director, at 206-254-9145 (djohnson@westar.org).

Sincerely,



Martin Bauer, President  
Western States Air Resources Council

Cc: WESTAR Council Air Directors  
Bill Harnett, EPA-OAQPS  
Steve Page, EPA-OAQPS  
EPA Regional Administrators, Regions 6, 8, 9, 10  
Bill Becker, NACAA

## ATTACHMENT

### Recommended Actions to Improve Implementation of 40 CFR Parts 50 and 51 Related to Treatment of Data Influenced by Exceptional Events

The Exceptional Events Rule, which became effective on May 21, 2007, provides state and local agencies with a mechanism to exclude air monitoring values associated with exceptional events from datasets used to make important regulatory determinations, including the determination of attainment and redesignation from nonattainment to attainment. The preamble to the rule characterizes exceptional events as "events for which normal planning and regulatory processes established by the [Clean Air Act] are not appropriate." State and local air quality management agencies and EPA Regional Offices have encountered problems implementing the rule. Delays in processing and approving exceptional event demonstrations add workload both for EPA as well as state and local agencies while the backlog of pending actions by EPA grows and retrieval of older documentation becomes increasingly problematic. State and local agencies are often faced with strict deadlines to make regulatory decisions (e.g., attainment/nonattainment determinations), decisions that could hinge on whether or not data affected by exceptional events are included or excluded. Accordingly, WESTAR believes that EPA should establish a goal to respond to requests within 60 days, and in no case should EPA need more than 18 months to make a final concurrence decision.

Many of the problems can be traced to the lack of clarity surrounding EPA's expectations about what a state<sup>1</sup> should include in its demonstration package, as well as lack of consistency between the preamble and the rule itself. States are left to guess what EPA will ultimately require. While written guidance could address this issue, strict guidelines and thresholds would ignore the reality that each exceptional event is different in its own way. *A state should always be afforded the opportunity to demonstrate that monitored data has been affected by an exceptional event and exclude the data even when the circumstances surrounding the event are unusual and do not conform to a "one size fits all" model.*

States, EPA, and ultimately the public will benefit if we can solve these implementation issues. States should not be required to solve problems over which they have little or no control. It is essential that we focus our air quality management resources on problems we can solve, especially in these times of tight budgets and limited resources.

WESTAR believes the following recommendations address many of the problems states and EPA have encountered over the past two years. EPA's expectations with regard to the scope and content of a state's exceptional events demonstration package need to be more clearly articulated. Once EPA's expectations are clear, states should be able to prepare packages

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<sup>1</sup> All subsequent references to the state are meant to include state and local agencies responsible for submitting air quality data to the AQS.

that address those expectations or explain why an alternative analysis or explanation is appropriate.

Our recommendations address each of the showings a state is required to make, as spelled out in the Exceptional Events Rule. According to the rule, the state must show that:

1. An exceptional event occurred, as defined in the rule;
2. There is a clear causal relationship between the monitored value and the event;
3. There would have been no exceedance but for the event;
4. The event caused a measured concentration in excess of normal historical fluctuations;
5. The state has followed a public comment process; and
6. Reasonable actions are being taken to protect public health.

In general, we recommend that EPA use a screening process that differentiates exceptional event demonstrations that can and should be expedited from those that, absent significant justification, are unlikely to receive EPA concurrence. In the case of the former, neither EPA nor the state should devote additional resources to embellishing an otherwise approvable package. In the latter case, the state should know the hurdles it is likely to face in preparing an approvable demonstration so that informed decisions can be made about committing resources to the task.

The majority of the cases will fall somewhere between these two extremes – simple in many respects but more complicated in others. In these cases, it is important that EPA and the state are clear on both the showings that need more work as well as those showings that are sufficient and approvable. In short, both EPA and the state should be clear on expectations.

### Recommendations

1. Show that an exceptional event occurred, as defined in the rule.

In the preamble to the Exceptional Events Rule, EPA describes exceptional events as “events for which the normal planning and regulatory process established by the CAA is not appropriate.” This characterization addresses the fundamental issue that the Exceptional Events Rule is meant to address - that regulatory decisions under the CAA should not be biased by monitored air quality data over which the state has little or no control.

The rule provides a broad definition of an exceptional event as an event that affects air quality, is not reasonably controllable or preventable, and is either a natural event or an event that is unlikely to recur [50.1(j)]. The rule later restricts an exceptional event to exceedances or violations of a NAAQS [50.14(a)(1)] and further requires the state to justify its request for exclusion of data by showing that the exceedance would not have occurred but for the event [50.14(c)(3)(iii)(D)].

Unfortunately, these restrictions could result in inflated design values, driving Clean Air Act planning and regulatory processes that are not appropriate. For example, inflated design values could impact nonattainment area classifications, control program target reductions in attainment SIPs, monitoring network design obligations, and eligibility for the limited maintenance plan option.

WESTAR recommends either of two paths for EPA to address this issue. The preferred alternative would be for EPA to revise the Exceptional Events Rule to allow its use any time monitored values are affected by an exceptional event that is not reasonably controllable or preventable. If EPA chooses not to revise the rule, WESTAR recommends that EPA allow for data that does not otherwise meet the definition of an exceptional event to be excluded under the Part 50 NAAQS rule appendices that govern data handling and allow the Regional Administrator to exclude data on a case-by-case basis.

2. Show that there is a clear causal relationship between the monitored value and the event.

The relationship between the event and the impacted monitoring site should be clearly established by the state in its exceptional event demonstration package. Once that relationship has been clearly established, no further work to address this part of the Exceptional Events Rule should be required. In some cases, the circumstances of the event will be such that the demonstration by the state is simple, while in other cases more detailed analysis will be needed. Our recommendation centers on how EPA could differentiate between the simple and the more difficult demonstrations so that, in the simple case, expeditious concurrence can be expected, and in the more difficult case, EPA can quickly alert the state as to the specific information needed for approval.

The clear causal relationship should be established through a description of four critical elements: meteorology, area impacted by the event, contributing emission sources, and air quality impacts.

- a. Narrative: Describe the event in narrative terms, including the chronology, and summarize how the following elements interacted to impact the monitoring site. The narrative and the associated analyses below should establish that: 1) there was an event, 2) the meteorological conditions were sufficient to provide for transport of the emissions generated by the event to the monitor, and 3) the chronology of concentrations (either daily or hourly) at the affected monitors are consistent with the expected arrival of the emissions.
- b. Meteorology:
  - i. Expedited review for *dust* if:

1. 20 mph or greater wind speed for minimum of 2 hours or wind speed above an established dust suspension threshold for the region, and;
  2. Synoptic scale meteorology which could be coupled with back trajectories as appropriate showing source-receptor relationship.
- ii. Expedited review for *fire impact on PM or ozone* if:
1. Synoptic scale meteorology which could be coupled with back trajectories as appropriate showing source-receptor relationship, or;
  2. Satellite and/or photographic evidence showing plume impact coupled with vertical dispersion evidence showing ground level impact.
- c. Area impacted by the event: Expedited review if all of the monitors expected to be impacted by the event were impacted.
- d. Contributing emission sources: Expedited review if the state shows emissions in the area were consistent before, during, and after the event, aside from emissions from the event itself.
- e. Air Quality Impacts: Expedited review if there is physical evidence of a plume impacting the monitor. For PM, this might include photographs or smoke markers on filter. For ozone, this might include a showing that the diurnal pattern differs significantly from the typical diurnal pattern for that monitoring site with respect to either the timing of peaks and valleys in the diurnal profile, or the rapidity of the buildup of concentrations.
3. Show that there would have been no exceedance but for the event

This is a special case of the clear causal discussion above, requiring a state to show not only that there was an impact from an event on a monitored value, but that the impact was significant enough to have caused the exceedance.

This demonstration requires a state to calculate the incremental impact caused by an event at a monitoring site over the relevant averaging time. In the preamble to the Exceptional Events Rule, however, EPA acknowledges that there are no precise and universally applicable techniques for calculating incremental impacts. Despite this acknowledgement, the state must do such a calculation to make the showing that there would have been no exceedance but for the event.

In large part, this dilemma is an outgrowth of EPA's choice to limit the definition of an exceptional event to an event that caused an exceedance of a NAAQS. EPA established a bright line test while acknowledging the absence of acceptable methods to meet the test.

Reiterating our comments above regarding EPA's choice to limit exceptional events to those that caused an exceedance, WESTAR believes that EPA should either revise the Rule to allow its use any time monitored values are affected by an exceptional event that is not reasonably controllable or preventable, or allow for data that does not otherwise meet the definition of an exceptional event to be excluded under the Part 50 NAAQS rule appendices that govern data handling and allow the Regional Administrator to exclude data on a case-by-case basis. If EPA chooses not to address this issue through either path, we offer the following recommendations on the requirement to show that there would not have been an exceedance but for the event.

WESTAR recommends expedited review when the incremental increase attributed to an exceptional event, as calculated using the methods described below, was sufficient to cause an exceedance of the relevant NAAQS:

- a. Estimating event impacts on 24 hour PM: Calculate the difference between the monitored value and the average PM concentration based on all of the hourly measurements at the site excluding the hours during which the event impacted the site. The difference is assumed to be the impact from the event. Hourly PM data must be available using this approach, or;
- b. Calculate the 98<sup>th</sup> percentile average daily PM value for similar time periods (typically seasonal but more precise, area specific metrics could be used). The incremental impact from the event is assumed to be the difference between the actual value for that day and the 98<sup>th</sup> percentile expected value for similar days.
- c. Estimating fire impact on ozone:
  - i. In areas that use predictive modeling to estimate ozone values for AQI purposes, the increase in monitored ozone resulting from the event is assumed to be the difference between the monitored value and a predicted value, or;
  - ii. The incremental impact from the event is assumed to be the difference between the actual value for that day and the 98<sup>th</sup> percentile expected value for similar days, calculated by determining the 98<sup>th</sup> percentile average 8-hour ozone value for similar time periods (typically seasonal but more precise, area specific metrics could be used).

4. Show that the event caused a measured concentration in excess of normal historical fluctuations

WESTAR stands by its May 25, 2006 comments to the Exceptional Events Rule docket as follows:

“WESTAR’s view is that statistical analysis may be used to qualify an event as an exceptional event, but statistical analysis should not be used to exclude an event from qualification as an exceptional event. Accordingly, WESTAR recommends that the rule allow States to seek a flag for any and all data impacted by an exceptional event. Concentrations above the 75<sup>th</sup> percentile of typical concentrations qualify as exceptional events and require only basic documentation. States may justify concentrations below the 75<sup>th</sup> percentile level on a case-by-case basis.”

Notwithstanding WESTAR’s comments, EPA chose in the final rule to require a state to show that the event resulted in a monitored value in excess of normal historical fluctuations. By limiting exceptional events in this manner, EPA has effectively excluded chronic dust and wildfire events that are common in the western states. That is, as chronic events, they are a part of our historical record against which we are required to show that a particular event caused an abnormal concentration. In short, during these chronic events, abnormal is normal, and under these circumstances it would be senseless to try to show that the event is abnormal.

WESTAR recommends that EPA either revise the rule to exclude this provision, or issue guidance consistent with our May 25, 2006 comments quoted above. The suggested 75<sup>th</sup> percentile should be considered sufficient for expedited review.

5. Show that the state has followed a public comment process

This provision of the Exceptional Events Rule has not proven to be a problem, and we therefore offer no recommendations for improvement.

6. Show that reasonable actions are being taken to protect public health.

While an exceptional event is defined as an event that is not reasonably controllable or preventable, reasonable steps can and should be taken to mitigate the impacts of an event on public health. This is consistent with the guiding principle in the preamble to the Exceptional Events Rule that protection of public health is the highest priority.

WESTAR recommends that states that have developed Natural Events Action Plans under the Natural Events Policy (superseded by the Exceptional Events Rule) continue to use these or

similar plans to guide the steps to be taken to alert and inform the public and to address actions the state may take to reduce emissions, especially from temporary and intermittent sources. States that have not developed such plans may consider doing so, or document other ongoing public education and alert programs if there is a likelihood of dust or fire events in the future.

As part of this showing, EPA must also determine whether the state is implementing an emission control program that, in effect, represents “reasonable actions” to protect public health. Section 110 of the Clean Air Act requires just this sort of showing in each state’s SIP, a plan that provides for implementation, maintenance, and enforcement of primary and secondary air quality standards. The SIP must contain, among other things, enforceable emission limitations and other control measures, means, or techniques as may be necessary or appropriate to prohibit any source from contributing significantly to nonattainment or interfere with maintenance of national ambient air quality standards.

WESTAR believes that, with regard to exceptional events, EPA’s assessment of whether a state is taking reasonable actions to protect public health should merely be an assessment of whether the state has met its obligations under Section 110 of the Clean Air Act. This would include emission control programs and regulations that are being implemented by the state, that have been submitted to EPA for inclusion in their SIP, but that have not yet been acted upon by EPA.

If the 110 SIP is deficient, EPA should call for a SIP revision as set forth in the Act. Under these circumstances the state would need to show that the deficiency had little impact on the monitored value for which the state has requested exclusion under the Exceptional Events Rule. Otherwise, WESTAR believes that the absence of a SIP call represents *defacto* evidence that the state is taking reasonable steps to protect public health.

In either case, EPA’s review should focus on whether, in fact, the applicable provisions of the SIP were being implemented when the event occurred, including intermittent control measures—for example, suspending burn permits.

## 7. Additional recommendations

In addition to the recommendations above related to specific showings a state must make in support of an exceptional events request, WESTAR has several suggestions regarding basic program administration that, if implemented, will ensure that the state and EPA are clear on all issues related to the approvability of exceptional events requests. The common theme is: keep in touch and keep informed.

- a. Learn from previous successes (and failures). The content and format of an approvable exceptional event demonstration will become clear over time as EPA responds to more and more demonstrations. A successful demonstration

should guide future demonstrations, including, for example, consistent definition of key terms and consistent application of analytical methods.

- b. EPA should provide periodic reports on the status of their review of exceptional event demonstrations.
- c. When an exceptional event demonstration, for one reason or another, does not qualify for expedited review, the state should be informed within 60 days of their submittal and given the opportunity to consult with EPA on the specific areas that are deficient. This is especially important when, in EPA's view, one or more of the areas represent a fatal flaw to approval.

In closing, streamlining the implementation of the exceptional events rule would benefit EPA, the states, and ultimately the public. Simple, yet critical, changes to the rule would resolve many issues, while other issues could be addressed by implementing procedures that differentiate exceptional events based on the complexity of the circumstances surrounding the event. States will always be limited to the data they have on hand to document an event. Knowing what data are most important and how those data are best used to document an exceptional event will contribute significantly to improving the implementation of the exceptional events rule.

# WESTAR Recommendations Exceptional Events EPA response

WESTAR Spring Business Meeting  
San Francisco, California  
April 26, 2011

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## Problem statement

- Delays in processing and approving exceptional event demonstrations add workload for EPA and state and local agencies; Backlog of pending actions by EPA grows – Need for expedited review process in “easy” cases
- Lack of clarity surrounding EPA’s expectations; States are left to guess what EPA will ultimately require
- Some rule definitions create barriers to quantify impacts of exceptional events on air quality data

## To exempt monitored data caused by an Exceptional Event, states must show:

1. An exceptional event occurred, as defined in the rule;
2. There is a clear causal relationship between the monitored value and the event;
3. There would have been no exceedance but for the event;
4. The event caused a measured concentration in excess of normal historical fluctuations;
5. The state has followed a public comment process; and
6. Reasonable actions are being taken to protect public health.

## An exceptional event occurred, as defined in the rule

- Revise rule restrictions on exemptions only of measured NAAQS exceedances, that would not have occurred, "But For" the event
  - Reduce inflated design values in NAAs
  - Remove requirement to quantify incremental impact of event – no acceptable methodology
- Revise rule to qualify data exemptions based on whether or not an exceptional event affecting an air quality measurement is reasonably controllable or preventable
- Alternate – allow RA to use data handling provision in rule to exempt data case-by-case

## There is a clear causal relationship between the monitored value and the event

- Expedite simple demonstrations
- Alert state if more detailed demonstration is needed
- Criteria for expedited process in four areas of analysis
  - Meteorology
  - Area impacted
  - Contributing sources
  - Air Quality Impacts

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## There would have been no exceedance but for the event

- No universally accepted method to quantify the incremental impact of the event to show whether NAAQS was exceeded solely due to the event
- Revise rule to allow exemptions of data below NAAQS and where event is not controllable or preventable
- Alternatively, suggest methodology for calculating incremental impact of the exceptional event and expedited review process

The event caused a measured concentration in excess of normal historical fluctuations

- Wide fluctuations in West due to chronic natural events of high winds (dust) and wildfire (PM and Ozone)
- Change rule; or
- allow high value caused by an event that is above the 75<sup>th</sup> percentile of typical concentrations qualify as exceptional event and expedite review with basic documentation

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The state has followed a public comment process; and Reasonable actions are being taken to protect public health

- No recommendations on public process
- Assessment of SIP implementation, reasonable mitigation action plan, including public health advisories should count as reasonable action