6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 50 and 51

[EPA-HQ-OAR-2005-0159; FRL]

RIN 2060-AN40

The Treatment of Data Influenced by Exceptional Events

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed Rule.

SUMMARY: Today, EPA is proposing a rule to govern the review and handling of air quality monitoring data influenced by exceptional events. Exceptional events are events for which the normal planning and regulatory process established by the Clean Air Act (CAA) is not appropriate. In this rulemaking action, EPA is proposing to: implement section 319(b)(3)(B) and section 107(d)(3) authority to exclude air quality monitoring data from regulatory determinations related to exceedances or violations of the National Ambient Air Quality Standards (NAAQS) and avoid designating an area as nonattainment, redesignating an area as nonattainment, or reclassifying an existing nonattainment area to a higher classification if a State

adequately demonstrates that an exceptional event has caused an exceedance or violation of a NAAQS. Also, EPA is proposing four options with respect to whether, and to what extent, States should be required to take additional actions to address public health impacts related to the event.

DATES: Comments must be received on or before **[Insert date 60 days after publication in the Federal Register]**. Comments must be postmarked by the last day of the comment period.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2005-0159, by one of the following methods:

- www.regulations.gov. Follow the on-line instructions for submitting comments.
- E-mail: Comments may be sent by electronic mail (e-mail) to A-and-R-Docket@epa.gov, Attention Docket ID No. EPA-HQ-OAR-2005-0159.
- Fax: Fax your comments to: 202-566-1741, Attention Docket ID no. EPA-HQ-OAR-2005-0159.
- Mail: Send your comments to: Air and Radiation Docket and Information Center, U.S. Environmental Protection Agency, Mail Code: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460, Attention Docket ID No. EPA-HQ-OAR-2005-0159.

- Hand Delivery: Air and Radiation Docket and Information Center, U.S. Environmental Protection Agency, 1301 Constitution Avenue, NW, Room B102, Washington, DC, Attention Docket ID No. EPA-HQ-OAR-2005-0159. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OAR-2005-0159. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected information through www.regulations.gov, or e-mail. The www.regulations.gov website is an "anonymous access" system, which means that EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through wwww.regulations.gov, your e-mail address will be

automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional instructions on submitting comments, go to **Supplementary Information**.

Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Office of Air and Radiation Docket and Information Center, EPA West, Room B102, 1301 Constitution Ave, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal

holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Office of Air and Radiation Docket and information Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: General questions concerning this proposed rule should be addressed to Mr. Larry D. Wallace, Ph.D., Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail Code C539-01, Research Triangle Park, N.C. 27711; telephone (919) 541-0906, and e-mail address wallace.larry@epa.gov.

Questions concerning technical and analytical issues related to this proposed rule should be addressed to Mr. Neil Frank, Office of Air Quality Planning and Standards, Air Quality Assessment Division, Mail Code C304-04, Research Triangle Park, N.C. 27711; telephone (919) 541-5560, and e-mail address frank.neil@epa.gov.

SUPPLEMENTARY INFORMATION:

Public Hearing

The EPA will hold two public hearings on today's proposal during the comment period. The details of the public hearings, including the times, dates, and locations will be provided in a future Federal Register notice. The public hearings will provide interested parties the opportunity to present data, views, or arguments concerning

the proposed rule. The EPA may ask clarifying questions during the oral presentations, but will not respond to the presentations or comments at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as any oral comments and supporting information presented at the public hearings. Under CAA section 307(d)(1)(A), the procedural requirements of section 307(d) apply to this proposal. In addition, under section 307(d)(1)(U), the Administrator determines that this action is subject to the provisions of section 307(d). Section 307(d)(1)(U) provides that the provisions of section 307(d) apply to "such other actions as the Administrator may determine." The EPA is including the proposals in today's proposed rulemaking under sections 307(d)(1)(A) and (U).

Comments

1. *Submitting CBI*. Do not submit this information to EPA through www.regulations.gov or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes

information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for Preparing Your Comments*. When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, Federal Register date and page number).
- Follow directions- The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your cost estimate in sufficient detail to allow for it to be reproduced.

- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

In addition, please send a copy of your comments to: Mr. Larry D. Wallace, Ph.D., U.S. Environmental Protection Agency, by one of the means listed below:

1. E-Mail: wallace.larry@epa.gov.
2. Fax: (919) 541-5489, Attention: Mr. Larry D. Wallace, Ph.D.
3. Mail: Mr. Larry D. Wallace, Ph.D., U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Mail Code: C539-01, Research Triangle Park, NC 27711.
4. Hand Delivery: Mr. Larry D. Wallace, Ph.D., U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, 109 T.W. Alexander Drive, Research Triangle Park, NC 27709.

Table of Contents:

The following is an outline of the preamble.

I. Preamble Glossary of Terms and Acronyms

The following are abbreviations of terms used in the preamble.

AQS	Air Quality System
BACM	Best Available Control Measures
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
EPA	Environmental Protection Agency
FIP	Federal Implementation Plan
FMP	Fire Mitigation Plan
NAAQS	National Ambient Air Quality Standards
NEAP	Natural Event Action Plan
OAQPS	Office of Air Quality Planning and Standards
PM_{10}	Particles with a nominal mean aerodynamic diameter less than or equal to 10 micrometers
$PM_{10-2.5}$	Particles with a nominal mean aerodynamic diameter greater than 2.5 micrometers and less than or equal to 10 micrometers
$PM_{2.5}$	Particles with a nominal mean aerodynamic diameter less than or equal to 2.5 micrometers
RACM	Reasonably Available Control Measures
SIP	State Implementation Plan
SAFE-TEA-LU	Safe Accountable Flexible Efficient-Transportation Equity Act- A Legacy for Users

SMP	Smoke Management Plan
TAR	Tribal Authority Rule
TIP	Tribal Implementation Plan

II. Background and Purpose of Today's Rulemaking

A. Legislative Requirements

Today, EPA is proposing a rule to govern the review and handling of air quality monitoring data influenced by exceptional events. As discussed below, these are events for which the normal planning and regulatory process established by the CAA is not appropriate. Section 319 of the CAA, as amended by section 6013 of the Safe Accountable Flexible Efficient-Transportation Equity Act: A Legacy for Users (SAFE-TEA-LU) of 2005, requires EPA to publish this rule in the Federal Register no later than March 1, 2006.[1] Further, EPA is required to issue the final rule no later than 1 year from the date of proposal.

The EPA is proposing to establish procedures and criteria related to the identification, evaluation, interpretation, and use of air quality monitoring data related to any NAAQS where States petition EPA to exclude data that are affected by exceptional events. Section 319

[1] All subsequent references to section 319 of the CAA in this proposal are to section 319 as amended by SAFE-TEA-LU unless otherwise noted.

defines an event as an exceptional event if the event affects air quality; is a natural event or an event caused by human activity that is unlikely to recur at a particular location; and is determined by the Administrator to be an exceptional event. The statutory definition of exceptional event specifically excludes stagnation of air masses or meteorological inversions; a meteorological event involving high temperature or lack of precipitation; or air pollution relating to source noncompliance.

Section 319(b)(3)(B)(i) requires a State air quality agency to demonstrate through "reliable, accurate data that is promptly produced" that an exceptional event occurred.[2] Section 319(b)(3)(B)(ii) requires that "a clear causal relationship" be established between a measured exceedance of a NAAQS and the exceptional event demonstrating "that the exceptional event caused a specific air pollution concentration at a particular location." In addition, section 319(b)(3)(B)(iii) requires a public process to determine whether an event is an exceptional event.

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[2] While this document refers primarily to States as the entity responsible for flagging data impacted by exceptional events, other agencies, such as local or Tribal government agencies, may also have standing to flag data as being affected by these types of events, and the criteria and procedures that are discussed in this rulemaking also apply to these entities.

Finally, section 319(b)(3)(B)(iv) requires criteria and procedures for a Governor to petition the Administrator to exclude air quality monitoring data that is directly due to exceptional events from use in determinations with respect to exceedences or violations of the NAAQS.

Section 319 also contains a set of five principles for EPA to follow in developing regulations to implement section 319:

> (i) protection of public health is the highest priority;
>
> (ii) timely information should be provided to the public in any case in which the air quality is unhealthy;
>
> (iii) all ambient air quality data should be included in a timely manner in an appropriate Federal air quality data base that is accessible to the public;
>
> (iv) each State must take necessary measures to safeguard public health regardless of the source of the air pollution; and
>
> (v) air quality data should be carefully screened to ensure that events not likely to recur are represented accurately in all monitoring data and analyses (42 U.S.C. 7619(b)(3)(A)).

In adopting revisions to section 319, EPA believes that Congress sought to provide statutory relief to States to allow them to avoid being designated as nonattainment or to avoid continuing to be designated nonattainment as a result of exceptional events in appropriate circumstances. In addition, Congress indicated that States should not have to prepare and implement regulatory strategies when their air quality is affected by events beyond their reasonable control. To accomplish this goal, Congress enumerated certain minimum requirements for this rulemaking. In addition, Congress provided certain statutory principles for EPA to follow in promulgating regulations to exclude data affected by exceptional events.

Section 319 also includes an interim provision, section 319(b)(4), that addresses the transition period between the present and the date that a final regulation governing the treatment of data related to exceptional events is promulgated. The provision indicates that following EPA guidance documents continues to apply until the effective date of a final regulation promulgated under section 319(b)(2): "Guidance on the Identification and Use of Air Quality Data Affected by Exceptional Events" (July 1986); "Areas Affected by PM_{10} Natural Events," May 30, 1996; and appendices I, K, and N to 40 CFR part 50, which

describe how air quality monitoring data are to be used and interpreted to determine compliance with the applicable NAAQS. The statute requires the promulgation of the final rule no later than 1 year following the publication of this proposed rule.

B. Historical Experience Concerning Exceptional and Natural Events

Since 1977, EPA guidance and regulations have either implied or documented the need for a flagging system for data affected by an exceptional event. The first EPA guidance related to the exclusion or discounting of data affected by an exceptional event was an Office of Air Quality Planning and Standards (OAQPS) guidance document entitled, "Guidelines for the Interpretation of Air Quality Standards," Guideline No. 1.2-008 (revised February 1977).[3]

In July 1986, EPA issued the guidance entitled, "Guideline On the Identification and Use of Air Quality Data Affected By Exceptional Events" (the Exceptional

[3] "Guideline for Interpretation of Air Quality Standards," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. OAQPS No. 1.2-008 (Revised February 1977). The guidance indicated the need for a data flagging system which would require the submittal of detailed information establishing that a violation was due to uncontrollable natural sources and that the information could be used in decision-making related to the feasibility of modifying control strategies.

Events Policy). The Exceptional Events Policy provided criteria for States to use in making decisions related to identifying data that have been influenced by an exceptional event.

In addition to the Exceptional Events Policy, on July 1, 1987, EPA promulgated the NAAQS for PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or less) which also addressed the issue of excluding or discounting data affected by exceptional events.[4] Appendix K of that rule allows for special consideration of data determined to be affected by an exceptional event. Section 2.4 of appendix K authorizes EPA to discount from consideration in making attainment or nonattainment determinations for air quality data that are attributable to "an uncontrollable event caused by natural sources" of PM_{10}, or “an event that is not expected to recur at a given location.” Section 2.4 of appendix K, together with EPA guidance contained in the Exceptional Events Policy, describes the steps that should be taken for flagging PM_{10} data that a State believes are affected by an exceptional or natural event.

[4] Federal Register (52 FR 24667), July 1, 1987.

In 1990, section 188(f) was added to the CAA. This section of the CAA provided EPA authority to waive either a specific attainment date or certain planning requirements for serious PM_{10} nonattainment areas that were affected by nonanthropogenic sources. In response to section 188(f), and in consideration of the CAA consequences for areas affected by elevated concentrations caused by natural events, in 1996 EPA issued a policy to address data affected by natural events entitled, "Areas Affected by PM_{10} Natural Events," (the PM_{10} Natural Events Policy).[5]

On July 18, 1997, EPA issued revised NAAQS for ozone and a new NAAQS addressing $PM_{2.5}$. For ozone, the revised NAAQS provided for an 8-hour averaging period (versus 1 hour for the previous NAAQS), and the level of the standard was changed from 0.12 ppm to 0.08 ppm (62 FR 38856). For the $PM_{2.5}$ NAAQS, EPA established both a new 24-hour standard and a new annual standard. In that Federal Register, EPA also promulgated appendices I and N to 40 CFR part 50. Appendices I and N provided the methodologies for determining whether an area is in attainment of the 8-hour

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[5] Memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, to EPA Regional Offices entitled, "Areas Affected by PM_{10} Natural Events," May 30, 1996.

ozone and $PM_{2.5}$ NAAQS respectively, using ambient air quality data. Section 1.0 of appendix I, and section 1.0(b) of appendix N provide the authority for EPA to give special consideration to data determined to be affected by an exceptional or natural event.

Appendices K, I, and N, which are a part of the NAAQS for the affected pollutants as described above, provide that, while States must submit all valid ambient air quality data to EPA's Air Quality System (AQS) data base for use in making regulatory decisions, in some cases it may be appropriate for the Regional Administrator to exclude, discount, weight, or make adjustments to data that have been appropriately flagged from calculations in determining whether or not an area has attained the standard. These decisions are to be made on a case-by-case basis using all available information related to the event in question, and are required to be made available to the public for review. It should also be noted that, while it would be desirable to be able to adjust the daily value to exclude only those portions of the data that are attributable to the exceptional event, due to technical limitations, such subtraction has not been possible, and EPA's historical practice has been to exclude a daily measured value in its entirety when that value is found to

be largely caused by an exceptional event.

Following the promulgation of the 8-hour ozone and the $PM_{2.5}$ NAAQS, EPA provided additional guidance to States on how to address data affected by exceptional and natural events.[6] That guidance directed the States to follow three specific EPA guidance documents in making determinations related to data influenced by exceptional and natural events: (1) The Exceptional Events Policy; (2) The PM_{10} Natural Events Policy; and (3) The Interim Air Quality Policy on Wildland and Prescribed Fires, Memorandum from Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, May 15, 1998. The Interim Air Quality Policy on Wildland and Prescribed Fires addressed the treatment of air quality monitoring data that are affected by wildland and

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[6] "Guideline on Data Handling Conventions for the PM NAAQS," United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, EPA-454/R-99-008, April 1999.

"Guideline on Data Handling Conventions for the 8-hour Ozone NAAQS," United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, EPA-454/R-99-008, April 1999.

prescribed fires that are managed for resource benefits.[7] The EPA will continue to use these policies to address issues related to the existing and/or revised $PM_{2.5}$ NAAQS pending EPA's final action on today's proposed rulemaking. Similarly, issues related to exceptional and natural events affecting the ozone standard will continue to be addressed under the 1986 Exceptional Events Policy until EPA issues a final exceptional events rule.

III. Today's Proposed Action

A. To Whom and to What Pollutants Does Today's Proposed Rule Apply?

Under the statutory scheme established by the CAA, States are primarily responsible for the administration of air quality management programs within their borders. This includes the monitoring and analysis of ambient air quality and submission of monitoring data to EPA, which are then stored in EPA's AQS data base. The EPA retains an important oversight responsibility for ensuring compliance with CAA requirements. With respect to the treatment of air quality monitoring data, States are responsible for

[7] Following the promulgation of this rule, EPA will revise the "Interim Air Quality Policy on Wildland and Prescribed Fires" to be consistent with current policies related to wildland and prescribed fires as well as the final rulemaking on exceptional events.

ensuring data quality and validity and for identifying measurements that they believe warrant special consideration, while EPA is responsible for reviewing and approving or disapproving any requests for such consideration. Therefore, if adopted, today's proposed rule would apply to all States; to local air quality agencies to whom a State has delegated relevant responsibilities for air quality management, including air quality monitoring and data analysis; and, as discussed below, to Tribal air quality agencies where appropriate. This proposed rule would also govern EPA's actions in reviewing and approving or disapproving the relevant actions taken or requested by States. Where EPA implements air quality management programs on Tribal lands, this proposed rule would govern those actions as well.

At present, only the NAAQS for ozone and PM contain provisions which allow for the special handling of air quality data affected by exceptional events (40 CFR part 50, appendices K, I, and N). The language of section 319 of the CAA is broad in terms of making its provisions applicable to events that "affect air quality" and to exceedances or violations of "the national ambient air quality standards" (42 U.S.C. 7619(b)(1)(A)(i), (b)(3)(B)(iv)). Thus, its provisions can apply to the

NAAQS for any criteria pollutant. Because the NAAQS established for other criteria pollutants do not currently contain provisions permitting the discounting or exclusion of data due to exceptional events, we are proposing to only apply the provisions of this rule initially to ozone and PM. As we review and consider the need for revisions to the NAAQS for other pollutants, we will include provisions to address exceptional events in those NAAQS in accordance with section 319, as appropriate at that time. Because issuance of a new or revised NAAQS will necessitate the initiation of the designation process, EPA believes that the NAAQS rules are an appropriate place to make provision for exceptional events in the evaluation of air quality data. In the interim, where exceptional events result in exceedances or violations of NAAQS that do not currently provide for special treatment of the data, we intend to use our discretion as outlined under section 107(d)(3) not to redesignate affected areas as nonattainment based on these events.

B. How Does This Rule Relate to Indian Tribes?

Under the CAA and the Tribal Authority Rule (TAR), eligible Indian Tribes may develop and submit Tribal Implementation Plans (TIPs) for EPA approval, to administer requirements under the CAA on their reservations and other

areas under their jurisdiction. However, Tribes are not required to develop TIPs or otherwise implement relevant programs under the CAA. The EPA has stated that it will continue to ensure the protection of air quality throughout the nation, including in Indian country, and will issue Federal Implementation Plans (FIPs) as necessary or appropriate to fill gaps in program implementation in affected areas of Indian country (63 FR 7254, 7265; February 12, 1998).

In cases where a Tribal air quality agency has implemented an air quality monitoring network which is affected by emissions from exceptional events, the criteria and procedures identified in this proposed rule may be used to exclude or discount data for regulatory purposes. Certain Tribes may implement all relevant components of an air quality program for purposes of meeting the various requirements of this proposed rule. In some cases, however, a Tribe may implement only portions of the relevant program and may not be in a position to address each of the procedures and requirements associated with excluding or discounting emissions data (e.g., a particular Tribe may operate a monitoring network for purposes of gathering and identifying appropriate data, but may not implement relevant programs for the purpose of mitigating

the effects of exceptional events required under this proposed rule). The EPA intends to work with Tribes on the implementation of this proposed rule, which may include appropriate implementation by EPA of program elements ensuring that any exclusion or discounting of data in Indian country areas with air quality affected by exceptional events comports with the procedures and requirements of this proposed rule.

C. What is an Exceptional Event?

In accordance with the language in section 319, EPA is proposing to define the term “exceptional event” to mean an event that:

(i) affects air quality;

(ii) is not reasonably controllable or preventable;

(iii) is an event caused by human activity that is unlikely to recur at a particular location or a natural event; and

(iv) is determined by the Administrator through the process established in these regulations to be an exceptional event.

It is important to note that natural events, which are one form of exceptional events according to this definition, may recur, sometimes frequently (e.g., western wildfires). For purposes of this rule, EPA is proposing to define

"natural event" as an event in which human activity has no substantial or direct causal connection to the event in question. We recognize that over time, certain human activities may have had some impact on the conditions which later give rise to a "natural" air pollution event. However, we do not believe that small historical human contributions should preclude an event from being deemed "natural."

In this proposed rule, EPA also defines the term "exceedance" with respect to compliance with the NAAQS and establishes criteria for determining when an event can be said to "affect air quality." We are not proposing more detailed requirements for determining when an event is "not reasonably controllable or preventable" because we believe that such determinations will necessarily be dependent on specific facts and circumstances that cannot be prescribed by rule. In adopting section 188(f) of subpart 4 of the 1990 amendments to the CAA, Congress recognized and provided for distinctions between these types of activities, while discussing circumstances under which events should or should not be considered natural (see Public Law 101-549, CAA Amendments of 1990 House Report No. 101-290(l), May 17, 1990; and discussion of Mono Lake, California therein).

D. Examples of Exceptional Events

The EPA believes that the following types of events meet the definition of exceptional events, as defined above. This means that air quality data affected by these types of events may qualify for exclusion under this proposed rule if all other requirements of the rule are met. The AQS data base also contains a more detailed list of other similar events that may be flagged for special consideration (http://www.epa.gov/ttn/airs/airsaqs/manuals/codedescs.htm).

1. Chemical Spills and Industrial Accidents

Emissions that result from accidents such as fires, explosions, power outages, train derailments, vehicular accidents, or combinations of these may be flagged as an exceptional event.

2. Structural Fires

Structural fires include any accidental fire involving a manmade structure.

3. Exceedances Due to Transported Pollution

Transported pollution, whether national or international in origin and whether from natural or anthropogenic sources, may cause exceedances which are eligible for exclusion under this rule as long as the other criteria and requirements for exceptional events under this

rule are met. For example, States may flag, and EPA may exclude, data associated with fires occurring outside of the borders of the United States, such as forest fires in Mexico, Central America, and Canada; or transport events such as African dust and Asian dust which contribute significantly to ambient concentrations of a pollutant, leading to exceedances or violations of the NAAQS. An example of interstate transported emissions which may be flagged as due to an exceptional event would be emissions due to smoke from wildland fires which cause exceedances or violations at monitoring sites in other States. Other types of events may be considered on a case-by-case basis.

4. Exceedances Due to a Terrorist Attack

Emissions that result from a terrorist attack such as smoke from fires, dust, explosions, power outages, train derailments, vehicular accidents, or combinations of these may be flagged as an exceptional event.

5. Natural Events

The natural events addressed by this proposed rule are: (1) volcanic and seismic activities; (2) natural disasters and associated cleanup activities; (3) high wind events; (4) unwanted fires; and (5) stratospheric ozone intrusions. The EPA will consider other types of natural events on a case-by-case basis.

a. Volcanic and Seismic Activities. Ambient concentrations of particulate matter for which volcanic eruptions or seismic activity caused or contributed to high levels of particulate matter in an affected area will be treated as natural events. While not occurring frequently, volcanic and seismic activity can affect air quality data related to the particulate matter NAAQS for an extended period of time after an event. Volcanic eruptions contribute to ambient concentrations in two ways; concentrations due to primary emissions (e.g., ash); and emissions of precursor pollutants (e.g., sulfur dioxide) that contribute to the secondary formation of particulate matter. Seismic activity (e.g., earthquakes) can also contribute to ambient particulate matter concentrations by shaking the ground, causing structures to collapse and otherwise raising dust.

b. Natural Disasters and Associated Clean-up Activities.

For the purpose of flagging, major natural disasters, such as hurricanes and tornados for which State, local, or Federal relief has been granted, and clean-up activities associated with these events may be considered exceptional events.

c. High Wind Events. High wind events are events that affect ambient particulate matter concentrations through

re-entrainment of material, i.e., by raising dust. Concentrations of coarse particles, i.e., $PM_{10-2.5}$ and PM_{10} in some locations, are most likely affected by these types of events, although $PM_{2.5}$ standards may be exceeded under such circumstances as well.

d. Unwanted Fires. Ambient particulate matter concentrations caused by smoke from wildland fires will be treated as due to natural events if the fires are determined to be unwanted fires, designated wildland fire use fires, not designated or managed as prescribed fires, or requiring appropriate suppression action by a wildland manager.[8]

The question of what is a natural versus an anthropogenic fire has particular significance in considering the impacts of wildland fires on air quality and how they should be regarded under today's proposed rule. Federal land managers have given recognition to several different types of wildland fires, depending on their causal circumstances and the role that such fires play in the affected ecosystems. "Wildfires" are described as unplanned, unwanted wildland fires, and include

[8] It should be noted that this rule does not cover agricultural burning. To the extent that it is necessary for EPA to address this issue, we will do so in the future via separate guidance or rulemaking.

unauthorized burns (such as arson or acts of carelessness by campers), prescribed burns that escape control due to unforeseen circumstances, or other wildland fires where the primary objective is to suppress the fire as quickly as possible.

In contrast, “wildland fire use” fires are those which were ignited naturally or unintentionally (e.g., as the result of lightning) and are allowed to continue burning without suppression efforts in locations that have been designated in fire management plans as areas where fires are necessary and desirable to accomplish specific resource management objectives. “Prescribed fires” are those ignited purposely to accomplish specific management objectives, and have been subject to written, approved prescribed fire plans (“Interagency Strategy for Directives Task Group,” Memorandum from National Fire and Aviation Executive Board to Agency Personnel: Bureau of Indian Affairs, Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, USDA Forest Service, April 18, 2005). Under these classifications, we believe that wildfires due to whatever causes them clearly fall within the meaning of “natural events” as that term is used in section 319. Similarly, we believe that wildland fire use fires qualify as “natural events” by virtue of their

natural origins.

Prescribed fires, however, cannot be classified as "natural," given their clearly anthropogenic origins. Nonetheless, we believe that prescribed fires are not automatically excluded from the definition of exceptional events. If a prescribed fire meets the statutory criteria of being "unlikely to recur at the same location" or "not reasonably controllable or preventable," and the measures specified below, it may qualify as an exceptional event.

Prescribed fires carried out for resource management objectives are frequently designed to restore the role of wildland fires as they once occurred under natural conditions. As such, their expected frequency can vary widely, depending on the fire regenerative cycle of a particular landscape or wildland ecosystem. The natural fire cycle can range from once every year to less frequently than once in 35-60 years. Thus in many, though not all, cases it may be demonstrated that the likelihood of recurrence is sufficiently small that these events should be accorded special consideration under the rule.

Since a prescribed fire is being deliberately ignited, it does not qualify as "natural," and one view is that it cannot qualify as "not reasonably controllable or preventable." However, a different interpretation of this

provision of section 319 examines whether there are any reasonable alternatives to the use of fire in light of the needs and objectives to be served by it. For instance, there may be a sufficient build-up of forest fuels in a particular area that if left unaddressed would pose an unacceptable risk of catastrophic wildfire, which result in adverse impacts of much greater magnitude and severity than would result from the careful use of prescribed fires. A particular ecosystem may also be highly dependent on a natural fire cycle to maintain a sustainable natural species composition. Alternatively, pest or disease outbreaks in an area may be such that there are no reasonable alternatives to fire. In some cases, other legal requirements may preclude the use of mechanical fuel reduction methods such as in designated wilderness or National Parks. Where such ecological conditions exist, or where mechanical or other treatments are not reasonably feasible for reasons that include, but are not limited to, a lack of access or severe topography, we believe that it would be appropriate to exclude the impacts from well-managed prescribed fires to address them. Well-managed prescribed fires are those that consider smoke impacts prior to and during the burn, barring unforeseen circumstances, and when the prescribed fire is in

compliance with a Smoke Management Plan (SMP).

The EPA is proposing in this action that States continue to follow the smoke management provisions described in the “Interim Air Quality Policy on Wildland and Prescribed Fires,” issued May 15, 1998 (Wildland and Prescribed Fire Policy). This policy provides that EPA will allow exceedances to be discounted that have been flagged by a State as having been caused by prescribed fires used for purposes of resource management provided that the State certifies that it has adopted and is implementing a certified SMP as described in our policy. Under our proposal, if a State, local, or Tribal air quality agency does not certify that a basic SMP is being implemented, or that basic smoke management practices are being employed by burners, EPA would not exclude data related to exceedances or violations attributed to prescribed fires managed for resource benefits.

We request comments on the interpretation of prescribed fire described above on the proposed requirements for SMPs, and on any additional criteria or conditions that should be considered in determining whether and under what circumstances prescribed fires should be considered to be exceptional events.

e. Stratospheric Ozone Intrusions. Stratospheric ozone intrusion is considered to be a natural event. A stratospheric ozone intrusion occurs when a parcel of air originating in the stratosphere, which is at an average height of 20 km or 12.4 miles, is re-entrained directly to the surface of the earth. Stratospheric ozone intrusions are very infrequent, localized events of short duration. They are typically associated with strong frontal passages and, thus, may occur primarily during the spring season.

IV. The Management of Air Quality Data Affected by Exceptional Events

The EPA is proposing that, in order to exclude air quality data from consideration for regulatory purposes, States must follow the procedures, timelines, and other requirements described in this proposed rule. Specifically, States must clearly identify, or "flag," data they believe to be influenced by such events; they must show that they have flagged days on which air quality has been "affected" by exceptional events according to EPA criteria; and they must submit appropriate documentation demonstrating that the exceptional event caused the exceedance or violation of the NAAQS in question. Each of these steps is described in detail below.

A. Flagging of Data in the AQS Data Base

Air quality data are required, pursuant to 40 CFR part 58.35, to be submitted to EPA by each State on a calendar quarterly basis, with submissions due not later than 90 days after the end of a quarterly reporting period. Once air quality data have been submitted to EPA, it is possible to "flag" specific values for various purposes. "Data flagging" refers to the act of making a notation in a designated field of an electronic data record. The principal purpose of the data flagging system in the AQS data base is to identify those air quality measurements for which special attention or handling is warranted. These include, but are not limited to, those measurements that are influenced by exceptional events. In the case of exceptional events, States place the initial flag on the data in the AQS data base. Following an evaluation of the supporting documentation, EPA will decide whether to concur with the flag; concurrence will be marked by the placement of a second flag in the AQS data base by EPA. Once EPA has concurred on the flag, the data will be excluded from regulatory decisions such as determinations of attainment or nonattainment.

While the flagging of data by the State is the first step in an exceptional events demonstration, it is

insufficient by itself to allow for the exclusion of data. In order to have EPA concur on a flag, States must meet the additional requirements described below. As explained, the State has the responsibility to document both the occurrence of the event and the causal connection to the monitoring data under consideration. Because the initial step of flagging the data is a relatively simple one, States may flag many more days than the number of days for which they ultimately submit documentation to support exclusion.

B. What Does it Mean for an Event to "Affect Air Quality"?

It is important to recognize that any emissions-producing event has the potential to have some influence on downwind air quality. Indeed, on any given day, measured air quality at any given location will reflect the influences of a variety of activities, including both natural and anthropogenic emissions from both local and remote upwind sources. The EPA believes that it would be unreasonable to exclude data affected by an exceptional event simply because of a trivial contribution of the event to air quality. Furthermore, we also believe that it would be unreasonable to exclude more significant, but routine background air quality impacts, as this would disregard an important part of the public's exposure to air pollution

upon which EPA's air quality standards are based. The effect of such exclusion would be an inappropriate reduction in the stringency of the NAAQS, rather than providing specific relief under the circumstances provided in section 319 for which States should not be designated nonattainment or be required to prepare control strategies.

Neither section 319 nor its legislative history provides precise guidance on what should be considered when determining whether an event "affects air quality" and thus qualifies to be considered for exclusion or special treatment. However, section 319(b)(3)(B)(ii) and (iv) provide that there must be a "clear causal relationship" between a measured exceedance of a standard and the event to show that the event "caused a specific air pollution concentration;" and it must be shown that the data in question are "directly due" to an exceptional event. Moreover, one of the principles provided by section 319(b)(3)(A) indicate that the protection of public health is the highest priority. For these reasons, we are proposing that for an event to qualify as "exceptional" for purposes of special regulatory consideration, its air quality impact must fall both above the level of the applicable standard (i.e., must be an "exceedance" as required by section 319) and significantly beyond the

normal fluctuating range of air quality, including background air quality concentrations, and should be large enough so that without it there would have been no exceedance. We next provide several alternative approaches to determining whether and when air quality is "affected by" exceptional events, and request comment on which of these approaches is most suitable for demonstrating such impacts.

1. Option 1: 95th Percentile Criterion

The first proposed approach is essentially a test for statistical deviations from the norm. For measurement days on which the event can be shown to have an air quality impact, the measurement would be compared to the 95th percentile of measurements typical of days in the particular calendar quarter that are not influenced by exceptional events ("non-event days"). The typical days could be based on a 3-5 year period of record which exclude days influenced by exceptional events. Under this option, only an event whose resulting concentrations meet or exceed the 95th percentile criterion, along with meeting the other criteria in this proposed rule would qualify for exclusion from regulatory consideration.

In evaluating available air quality data, we have found that by limiting consideration to those

concentrations above the 95th percentile, only those concentrations that fall approximately two standard deviations above the mean of concentrations for that quarter would generally be excluded (See memo from Mark Schmidt, OAQPS, to docket entitled “Analysis of Flagged Particulate Matter Data,” February 10, 2006). Excluding days on which concentrations caused by exceptional events exceed the 95th percentile threshold employs a general test of statistical significance and has the effect of ensuring that such concentrations would clearly fall beyond the range of normal expectations for air quality during a particular time of year.

In our analysis of flagged and excluded air quality data for the period 1999-2004, we found that application of the 95th percentile criterion would result in the exclusion of approximately 85 percent of data previously flagged by States and concurred on by EPA. Thus, this approach would result in a somewhat more rigorous qualification requirement than is reflected in EPA’s past case-by-case approach. Previously, EPA did not have a concentration threshold or other quantitative criteria to determine which days would be eligible for exclusion due to exceptional events. As indicated above, approximately 15 percent of the flags that were concurred on were concentrations that

were not necessarily statistically distinguishable from routine levels. The 95th percentile approach could also help to eliminate some of the variability from State to State and Region to Region: as described in Schmidt (2006), rates of flagging and the severity of pollution on flagged days have varied significantly among States and regions in the past. For $PM_{2.5}$, for example, many States flagged no days between 1999-2004, while Puerto Rico flagged 15 percent of all of its $PM_{2.5}$ data. Also, while most $PM_{2.5}$ flags during this period were above the 95th percentile, some States flagged data at the 75th percentile or lower. (See memo from Mark Schmidt, OAQPS, to docket entitled "Analysis of Flagged Particulate Matter Data," February 10, 2006.)

2. Option 2: 75th Percentile/95th Percentile Tiered Approach

Under this approach, we propose to retain flexibility to determine whether concentrations less than the 95th percentile but above the norm should qualify for exclusion as "affecting air quality." In particular, multiple measurement values over time with relatively small individual event impacts may collectively affect an annual average concentration to a significant degree. States may wish to consider whether to exclude such impacts if the

average concentration is close to the level of the annual NAAQS. Therefore, we are soliciting comment on a second approach whereby measured values are compared both to the historical 95th percentile of non-event days and to the 75th percentile of such days.

Where concentrations caused by an exceptional event meet or exceed the 95th percentile criterion, they would be conclusively determined to qualify for exclusion subject to the other requirements of this proposed rule. Where concentrations caused by an exceptional event do not meet the 95th percentile criterion, we would provide a further opportunity for States to make demonstrations which satisfy the other criteria in this proposed rule, so long as values exceeded the 75th percentile of non-event days. This approach would provide for a more flexible approach and would rely on a weight-of-evidence demonstration that would permit States to make other sorts of showings that the concentrations caused by the event were in some way unusual or not representative of normal air quality and thus should not result in additional regulatory requirements.

When we applied the 75 percent percentile criterion to our analysis of flagged and excluded air quality data for the period 1999-2004, we found that this criterion would make nearly all of the data previously flagged by States

and concurred on by EPA eligible for exclusion. Thus, we expect this approach would have a result that is roughly consistent with EPA's past case-by-case approach.

3. Option 3: Case-by-Case Approach Based on Weight of Evidence

The third option is to permit the more general case-by-case evaluation, without threshold criteria, that may be guided by the magnitude of the measured concentration on days affected by exceptional events relative to historical, seasonally adjusted air quality levels. This approach is most nearly analogous to our historical treatment of exceptional events but, in contrast to Options 1 and 2, provides the least definitive guidance to assist States in their evaluations. Nevertheless, the case-by-case approach allows for consideration of days with ambient concentrations which are not necessarily among the highest concentrations that have been historically observed. In fact, 25 percent of days have concentrations greater than the median value but less than the 75^{th} percentile. While such days are unlikely to impact short-term standards, discounting such days can certainly have an impact on an annual average concentration. In general, however, demonstration that an event caused a concentration which is essentially indistinguishable from routine air quality

would be very difficult to document, and this approach may make it difficult for EPA regions to be consistent when determining whether to concur on a flag.

We request comment on which of these proposed options should be included in the final rule, including the appropriateness of proposed statistical criteria, the period of record on which to base the 95^{th} and 75^{th} percentile and conclusions about normal air quality expectations (e.g., 3 years, 5 years, or some longer period of record), and any other criteria or procedures we should consider adopting along with one of these options.

C. Use of a "But For" Test

There may be instances in which exceptional events may have a significant impact on air quality on days when concentrations are already above the applicable standard in the absence of the influence of such events. In such cases, it is important to preserve and consider all valid air quality data influenced by activities which properly fall within the responsibilities of States to manage for purposes of air quality attainment and maintenance. For this reason, we are proposing to require that air quality data may not be excluded except where States show that exceedances or violations of applicable standards would not have occurred "but for" the influence of exceptional

events. In other words, to the extent it is possible to determine that the resulting air quality concentrations and appropriate design values for an area would be above the level of the standards even without the influence of the exceptional event, the air quality data for the day(s) in question should not be excluded. However, consideration of the impacts of exceptional events on air quality values for control strategy planning purposes may be appropriate, and States are encouraged to consult with the appropriate EPA regional offices to further discuss this issue.

D. Schedules and Procedures for Flagging and Requesting Exclusion of Data

In establishing procedures and timetables for States to request, and EPA to grant, exclusion of data affected by exceptional events, we are guided by two competing considerations: ensuring States have adequate time and opportunity to compile and evaluate all relevant and available information in support of such requests; and making determinations in a timely manner so that all pertinent and valid air quality data would be appropriately considered in regulatory determinations. To assist EPA in determining the best approach to managing the data flagging process and submissions of demonstrations for the final rule, we are proposing three alternatives for public review

and comment.

1. Option 1: Early Data Flagging and Demonstration Submission

The first approach would establish a two-step process for identification of data and submission of demonstrations. This process provides for the early flagging of data and the notification of the appropriate EPA Regional Office concerning the State's intention to seek exclusion of data, followed by a longer timeframe for States to prepare and submit their demonstrations.

Under this approach, we would require a State to flag the data that they believe to be affected by exceptional events at the time of submission of the air quality data to EPA's AQS data base, in accordance with the schedule described in 40 CFR part 50.35, which is generally no later than 90 days after the end of the calendar quarter. This approach would ensure that the flagging process remains consistent with the timeline set forth in rules governing data submission requirements.

Just as the scope and substance of demonstrations in support of requests for exclusion will vary depending on facts and circumstances (see section IV.F. below), so, too, will the time required for such demonstrations. Where air quality in an area is influenced by a relatively small set

of emission sources with well-defined emission profiles and limited pollutant species, a demonstration that an air quality measurement influenced by a particular event merits exclusion may be relatively simple to make. In other cases, such as where the number and types of sources contributing to measured air quality concentrations are extremely complex and varied, making it more difficult to distinguish between the effects of routine activities and unusual ones, more time and effort will be needed for a State to provide an adequate demonstration in support of its request.

For these reasons, we are proposing under this option to require States to notify the appropriate EPA Regional Office of their intent to seek exclusion of data due to exceptional events at the time of submission of quarterly air quality data to the AQS data base. We are also proposing to require the State to consult with the EPA Regional Office as soon as reasonably possible after notification about the event, its suspected air quality impact, and the demonstration needed to justify a decision to exclude the data from regulatory consideration. This is intended to enable the State and EPA to work together during the process of data analysis and documentation to ensure that a complete and well-supported demonstration is

submitted in a timely manner.

With respect to demonstrations in support of requests for exclusion of data, we are proposing under this option to provide States with more time to submit the necessary demonstration. We propose that States submit complete demonstrations to EPA not later than 180 days following the close of the quarter in which the event occurred. Based on past experience with exceptional events and associated data analyses, we believe that this will provide adequate time in most cases for States to identify, compile, and evaluate all relevant factors pertaining to an exceptional event and its impacts. However, in special circumstances where additional time is required to make a complete submission, and where the outcome of such additional efforts is likely to have a substantial impact on the demonstration, we are proposing to allow States to request extensions of up to 90 additional days. We expect that such extensions under this option would be the exception, rather than the rule, and that they will be limited to special circumstances necessitating more complex and sophisticated analyses, such as where the collection and analysis of species-specific data in urban areas may be needed in order to characterize and quantify an event's contribution to air quality at a particular location. Under this option, as well as the

options addressed below, once EPA receives a State's demonstration, EPA will then have a 30-day period to review the demonstration and provide a concurrence or nonconcurrence on the flag in the AQS data base. The EPA expects that, in most cases, a period of 30 days will be enough time to review and provide a concurrence related to a State's request to exclude data affected by an exceptional event. However, for more complex demonstrations, EPA may require more time for its review. In such cases, EPA may extend the time for its review by not more than an additional 30 days.

2. Option 2: Early Data Flagging and Delayed Demonstration Submission

Under this option, we are proposing the same requirements for the flagging of data and notification of the appropriate EPA Regional Office as described in Option 1. However, under Option 2, we propose to allow up to 3 years following the quarter in which the event occurred for the submission of exceptional events demonstrations. The reason for providing more time under this option is that for most existing air quality standards, decisions regarding whether or not an area is attaining the applicable standard are based on the most recent 3 years of air quality data. Providing 3 years for submission of

demonstrations would provide States with an opportunity to evaluate whether the influence of one or more exceptional events will be relevant to determinations of attainment or nonattainment before undertaking the effort of preparing and submitting demonstrations.

3. Option 3: Delayed Data Flagging and Demonstration Submission

Under this option, we are proposing to decouple the process of flagging and demonstrations from the regular submission of air quality data to the AQS data base and to require instead that data be flagged and exceptional events demonstrations be submitted not later than 6 months prior to the date when regulatory decisions using the air quality data must be made. This option is based on the recognition that while data flagging itself may not be a particularly burdensome exercise, it triggers a more extensive process of collection and analysis of other information to determine and demonstrate whether, in fact, an exceptional event has occurred which affects air quality data in a way that justifies exclusion of the data. It may be that although certain events occurred which do indeed affect air quality in significant ways, their impact on regulatory decisions may not be known for a significant period of time, i.e., until a relevant 3-year period of record is

compiled and the need for a regulatory decision is identified. Thus under this option, it would be less burdensome for the States and EPA if demonstrations were not required unless and until it became apparent that potentially affected measurements would be used in making regulatory findings of attainment or nonattainment (e.g., where a State with an existing area designated as nonattainment seeks to have that area redesignated as attainment and the existence of one or more exceptional events may affect its ability to provide the requisite 3 years of clean air quality data).

We request comment on which of the above three proposed options EPA should promulgate and on what, if any, modifications to these options we should make prior to the final rule.

E. Exclusion of Entire 24-Hour Value as Opposed to a Partial Adjustment of the 24-Hour Value

The EPA's historical practice has been to exclude a daily measured value in its entirety when that value is found to be largely caused by an exceptional event, and we are proposing to retain this approach in today's proposed rule. With this approach, a determination is made that emissions from the event are largely responsible for the resultant ambient air pollutant concentration. For

example, if the observed concentration is 200 μg/m^3 $PM_{2.5}$ and is associated with a nearby forest fire, then EPA would concur with the claim that the event was responsible for the ambient concentration. The measured value would be excluded in its entirety from the data used to judge attainment (as per 40 CFR 50, appendix N), although the measurement day would still count towards meeting minimum data capture requirements.

We believe it would be desirable to adjust the daily value to exclude only those portions of the data that are attributable to the exceptional event in question, and to retain the remainder of the day's measurement if appropriate and accurate methods were available to make such adjustments. For example, if an area affected by a forest fire had a measured 24-hour $PM_{2.5}$ concentration of 50 μg/m^3 and the estimated event impact was 30 μg/m^3, then the expected value which would have occurred but for the event would have been 20 μg/m^3. Normal air quality for this location might be 16 μg/m^3 and, therefore, the "but-for" concentration of 20 μg/m^3 is above average. Discounting the entire event day could, therefore, inappropriately bias a determination of nonattainment with the annual $PM_{2.5}$ NAAQS (currently set at 15 μg/m^3). We are currently seeking to develop and evaluate new analytical methods that would

allow us to discount only the portion of the daily value attributable to the exceptional event. However, at present, we are not aware of the existence of adequate and universally applicable techniques that are administratively and technically feasible and that could support partial adjustment of air quality data except perhaps in limited cases, such as where the number and type of pollutant species and contributing sources are relatively less complex or potentially, when sufficient spatial, temporal, meteorological and chemical data are available [See memo to docket, Husar et al. 2006, (www.regulations.gov, Epa-HQ-Oar-2003-0061-0733 thru 0733.5)]. When we determine that techniques for adjustment of air quality data are sufficiently well-demonstrated for use in exceptional events determinations, we will publish a notice of proposed rulemaking to seek comment on the appropriateness and scope of such use.

F. What Should States be Required to Submit in Their Exceptional Events Demonstrations?

Section 319 requires that, in order to have a flagged value excluded from regulatory determinations, a State must make an affirmative demonstration that an event occurred (as shown by reliable and accurate data that is promptly produced) and that there is a clear causal relationship

between measured exceedances or violations of a standard and the exceptional event in question to "demonstrate that the exceptional event caused a specific air pollution concentration." (42 U.S.C. 7619(b)(3)(B)(ii), (iv)). Section 319 also indicates that regulations promulgated under the section should provide for criteria and procedures to exclude air quality monitoring data "directly due to exceptional events from use in determinations by the Administrator with respect to exceedances or violations of the national ambient air quality standards."

Therefore, after flagging data in the AQS data base, States are expected to develop appropriate documentation to support each individual flag. As a general matter, we believe that such demonstrations should include documentation showing that the event in fact occurred and that emissions related to the event were transported in the direction of the monitor(s) where measurements were recorded; the size of the area affected by the transported emissions; the relationship in time between the event, transport of emissions, and recorded concentrations; and, as appropriate, pollutant species-specific information supporting a causal relationship between the event and the measured concentration. The latter information could be based on available data provided by routine speciation,

monitoring networks, or from selective laboratory analysis of archived particulate matter filters for the day thought to be impacted by specific events. In certain situations, such data might be useful for evaluation of impacts from exceptional events, e.g., to distinguish between impacts caused by natural fires versus impacts caused by industrial sources. Depending on which option is finalized pursuant to section V below, States may also need to show that appropriate mitigation actions were taken at the time that the event occurred, or after an event occurred in order to protect public health.

The following examples are intended to further illustrate the kinds of information that States could consider in preparing their demonstrations:

1. Information demonstrating the occurrence of the event and its subsequent transport to the affected monitors. This could include, for instance, documentation from land owners/managers, satellite-derived pixels (portions of digital images) indicating the presence of fires; satellite images of the dispersing smoke and smoke plume transport or trajectory calculations (calculations to determine the direction of transport of pollutant

emissions from their point of origin) connecting fires with the receptors.

2. Identification of the spatial pattern of the affected area (the size, shape, and area of geographic coverage). This could include, for instance, the use of satellite or surface measurement data.

3. Information about temporal patterns (e.g., the time and duration of an event in relation to measured downwind concentrations, air quality trends over time and space). This could include, for instance, observed sequential concentration spikes at multiple locations in a downwind direction.

4. Identification of the chemical composition of measured concentrations. This could include, for instance, organic or crustal material in excess of typically observed quantities to differentiate from other high concentration events.

5. Extremely high wind speeds, or unusual transport conditions relative to historically typical levels for the season of the year in which the claimed event occurred.

This list is not exhaustive and not all of these kinds

of information and/or documentation will need to be provided in every instance. A particular instance may require more or less documentation, depending on the particular facts or circumstances in that instance. The simplest demonstrations could consist of newspaper accounts or satellite images to demonstrate that an event occurred together with daily and seasonal average ambient concentrations to demonstrate an unusually high ambient concentration level which is clearly indicative of an exceptional impact. Such is the case with events such as volcanic eruptions and nearby forest fires. In one instance, we determined that wildfires upwind of the San Diego area caused high concentrations of particulate matter measured in October 2003 based on the actual physical damage caused by fire to the ambient monitor. Depending on the nature of the event, meteorological conditions, severity and spatial extent of measured ambient concentrations (including relevant chemical components when available) relative to what typically occurs in the area, and on emissions of pollutants from the exceptional event which have similar characteristics to those of other sources in the area, additional showings could be required on a case-by-case basis. In particular, we anticipate that significantly more effort will be needed to establish that

an exceptional event caused a particular concentration in an urban area in which there are numerous and diverse sources and complex meteorology and topography, and where the emissions from the event in question may well be similar to those from other sources contributing to measured concentrations, as compared to an area that has relatively few sources, simple terrain and less complex meteorology, and where emissions associated with the event are both substantially greater than and different in composition from those of other nearby sources. Because of the variability in the nature of exceptional events and the resulting demonstration requirements, States should consult with the appropriate EPA Regional Office early in the process of preparing their demonstrations.

We are not proposing to specify what will be required as a minimum level of documentation in all cases because facts and circumstances will vary significantly based on, among other things, geography, meteorology and the relative complexity of source contributions to measured concentrations in any particular location. However, we request comment on whether we should adopt a set of minimum demonstration requirements to ensure a reasonable degree of national consistency in approaches to demonstrating exceptional events, and if so, what elements should be

included in the demonstration. We believe, however, that at a minimum, the elements of such a demonstration should include a showing that an event occurred at a time when meteorological conditions were conducive to transporting emissions from the event downwind to the monitor recording a high concentration of one or more criteria pollutants.

G. Special Considerations Relevant to Proposed Standards for $PM_{10-2.5}$

As noted in EPA's notice of proposed rulemaking reviewing the NAAQS for particulate matter (71 FR 2620; January 17, 2006), fine particles ($PM_{2.5}$) are produced chiefly by combustion processes and by atmospheric reactions of various gaseous pollutants, whereas thoracic coarse particles ($PM_{10-2.5}$) are generally emitted directly as particles as a result of mechanical processes that crush or grind larger particles or the resuspension of dusts. Sources of fine particles include, for example, motor vehicles, power generation, combustion sources at industrial facilities, and residential fuel burning. Sources of thoracic coarse particles include, for example, resuspension of traffic-related emissions such as tire and brake lining materials, and direct emissions from industrial operations, construction and demolition activities. Fine particles can remain suspended in the

atmosphere for days to weeks and can be transported thousands of kilometers, whereas thoracic coarse particles generally deposit rapidly on the ground or other surfaces and are not readily transported across urban or broader areas (71 FR 2620, 2625; January 17, 2006).

Based on preliminary analysis, we generally anticipate that demonstrations that ambient concentrations of $PM_{10-2.5}$ have been affected by exceptional events will involve similar analytical steps to demonstrations for $PM_{2.5}$ but will be simpler than demonstrations for $PM_{2.5}$.[9] This conclusion is based on preliminary evaluation of estimated $PM_{10-2.5}$ concentrations derived from historical PM_{10} and $PM_{2.5}$ data. We examined those days on which PM_{10} exceedances were flagged as due to exceptional events but where $PM_{2.5}$ concentrations were not also flagged, indicating that the event in question was dominated by coarse particles. The results of this analysis suggest that exceptional events related to $PM_{10-2.5}$ are relatively infrequent, occur predominantly in the western States and are overwhelmingly high wind events. Thus, with the exception of western areas, we do not anticipate that exceptional events will be

[9] The demonstrations related to $PM_{10-2.5}$ are contingent upon the final outcome related to the rulemaking on the NAAQS for $PM_{10-2.5}$.

a predominate factor in decisions made related to attainment or nonattainment determinations for the proposed $PM_{10-2.5}$ standards (See memo from Mark Schmidt, OAQPS, to docket entitled "Analysis of Flagged Particulate Matter Data," February 10, 2006). Moreover, in light of the above analysis and the evidence on which it is based, we believe that exceptional events demonstrations for $PM_{10-2.5}$ will involve relatively straightforward showings that when high concentrations occurred at the affected monitors, concentrations at available rural monitors (e.g., IMPROVE network monitors) were also elevated and that meteorological conditions (i.e., wind speed and wind direction) were conducive to transport from upwind sources of re-entrained coarse particles. It may be beneficial to examine continuous $PM_{10-2.5}$ monitoring data as well, as they may indicate extremely high short-term values (e.g., 1 hour or less) that heavily influence 24-hour concentrations and are consistent with extreme high wind events. For instance, when we examined air quality concentrations recorded in El Paso, Texas during a dust storm that occurred on April 26-27, 2002 we found two consecutive 24-hour average concentrations of PM_{10} (654 $\mu g/m^3$) and $PM_{2.5}$ (56 $\mu g/m^3$) which were dominated by a peak 1-hour concentration of 2700 $\mu g/m^3$ which occurred in the late evening of April

26-27.

H. Public Availability of Air Quality Data and Demonstrations Related to Exceptional Events

Sections 40 CFR parts 58.35 and 58.28 of EPA's air quality monitoring rules state that all data, flagged or unflagged, should be available to the public for comparison to the NAAQS to determine if exceedances have occurred. The EPA is proposing to require that all relevant flagged data, along with the reasons for the data being flagged, and a demonstration that the flagged data are caused by exceptional events be made available by the State for public review and comment prior to the demonstration being submitted to EPA for a decision concerning whether to exclude the data from regulatory consideration. Notice and availability of such data and demonstrations must be adequate and consistent with States' administrative procedures governing similar submissions. EPA is not proposing to require that public hearings be held on exceptional events demonstrations, but leaves this matter to the States' discretion.

V. Additional Requirements

Pursuant to section 319, EPA is proposing new regulations to address exceptional events. Also EPA is proposing one option, and is taking comments on three

alternative options, to address the issue of whether, and to what extent, States might be required to adopt specific mitigation plans or measures. Section 319 states that EPA must promulgate regulations that are consistent with paragraph 3 which enumerates certain principles and minimum regulatory requirements. The first part of paragraph 3 states that in promulgating regulations under section 319, EPA shall follow five principles, including the principle that each State "must take necessary measures to safeguard public health regardless of the source of air pollution." Section 319(b)(3)(A). This section does not, however, specify what measures may be "necessary" in this context. In order to address this principle, EPA is proposing to exclude trivial and more routine background air quality impacts from qualifying as an exceptional event and is also proposing a "but for" test as a precondition to qualification as an exceptional event (See: section IV). In addition, EPA is also proposing one approach and is taking comments on three other alternative options concerning State actions in anticipation of or in response to exceptional events. These proposed options range from being very detailed and more prescriptive to very flexible and less prescriptive. While EPA does not believe section 319(b)(3)(A) explicitly requires, in and of itself, that

States develop mitigating measures or plans under options (1), (2), and (3) as discussed below, EPA solicits comment on whether this subparagraph supports the exertion of other legal authority to require mitigating actions or plans and solicits comment on issues regarding its legal authority to require mitigation measures and plans, and the legal basis for not requiring mitigation measures or plans. We are also requesting comments on the proposed approach and the three alternatives, and on any modifications to or combinations of any of the four approaches.

A. Option 1: Proposed Option: Require Public Notification, Education and Appropriate and Reasonable Measures

In cases where exceedances or violations of a NAAQS are caused by an exceptional event, EPA is proposing that once a State becomes aware that an exceptional event is occurring, is predicted to occur, or has occurred, the State must take appropriate action to:

1. Provide notice to the public of the event. This may include, but is not limited to, using the media to alert the public of the event.
2. Provide public education concerning the potential health risks associated with being exposed to high ambient concentrations of pollutant(s)

related to the event. This may include, but is not limited to, providing information to sensitive populations related to the health risks associated with the event.

3. Take appropriate and reasonable measures to abate or minimize the exposure of the public to high concentrations of air pollution associated with the exceptional event. This may include, but is not limited to, taking reasonable and appropriate actions to implement control measures on significant contributing anthropogenic sources to reduce potential exposure of the public to emissions associated with natural events. For example, in the case of volcanic or seismic activity, this may include, but is not limited to, providing for prompt clean up of the ash deposits related to the event to prevent re-entrainment.

Under this option, where a State is requesting that air quality data be excluded as an exceptional event, the State must submit, as part of its demonstration, the appropriate documentation to show that the State provided appropriate public notice and public education concerning the event in question, and that the State took reasonable

measures to abate or minimize the exposure of the public, where appropriate.

The concept of having States take steps to reduce emissions, where appropriate, and to develop mitigation plans to address impacts associated with exceptional events was first instituted under the PM_{10} Natural Events Policy. The mitigation plans required under the PM_{10} Natural Events Policy were called Natural Events Action Plans (NEAPS). In instances where a State requested that air quality data influenced by a natural event be excluded, the State was required to develop and implement a NEAP.

In developing a NEAP, States were expected to: establish a public notification and education program related to natural events; minimize public exposure to high concentrations of pollutants related to natural events; provide a process for abatement of controllable anthropogenic sources related to natural events; identify, study, and implement practical mitigation measures as necessary; and provide for a periodic re-evaluation of the NEAP every 3-5 years.

Due to past success with the implementation of NEAPs, EPA is proposing to base the requirements to mitigate the impact of exceptional events on the general concepts and elements described above from the PM_{10} Natural Events

Policy. The EPA is proposing this approach to provide flexibility to the States to implement those measures that it considers to be reasonable and appropriate under particular circumstances to protect public health in the event of an exceptional event. The EPA believes that this approach allows States to use their experience in addressing those exceptional events that occur most frequently in their respective jurisdictions, and in providing notice to sensitive populations concerning the harmful effects of prolonged exposure to high concentrations of pollution associated with various types of exceptional events, yet could be consistent with both the principles and requirements of section 319. The proposed approach also allows EPA to fulfill its oversight responsibility, while still providing flexibility to States to implement reasonable measures to address the effects of exceptional events on public health. A possible disadvantage of this option is that it has the potential to result in inconsistencies in the way that exceptional events are addressed by States and in the actions that are taken to mitigate public health impacts associated with exceptional events, although such inconsistencies exist in any program that allows flexibility of any kind. We believe that despite this, such flexibility makes for a

better and more efficient program in terms of taking specific mitigation actions that fit the circumstances of each case.

B. Option 2: The Development of a Mitigation Plan by States under Section 110 of the CAA

Under this option, States would be required to adopt a general mitigation plan to address exceptional events before the occurrence of an event as a part of the State's SIP required under section 110(a)(1) of the CAA. Section 110(a)(1) requires States to adopt and submit to EPA, within 3 years following the promulgation of a new or revised NAAQS, a plan which provides for the implementation, maintenance, and enforcement of the standard in each air quality region within the State. The EPA believes that section 110(a)(1) of the CAA provides EPA with the statutory authority to require States to submit plans to address the mitigation of public health impacts due to exceptional events that cause exceedances or violations of the NAAQS, because such plans assist in the maintenance and enforcement of the NAAQS and could be consistent with both the principles and requirements of section 319. Under this alternative, States would be required to develop and adopt the general requirements and procedures necessary for the implementation of a mitigation

plan as a part of its section 110(a)(1) SIP to address a new or revised NAAQS. As a part of this plan, EPA would require States to identify the actions the State intends to take to reduce the impact of exceptional events on public health. Since the precise nature and cause of exceptional events may not be foreseeable, in many cases, these requirements would be general, and similar to the types of actions that States have already identified and adopted in their section 110 plans intended to address emergency episodes as required under section 110(g) and 40 CFR part 51.152. Once the general requirements of the mitigation plan are in place under section 110, the State would only need to take action on an episodic basis to implement the requirements of the mitigation plan for the affected area following the occurrence of an exceptional event.

The general plan requirements would include provisions for providing public notification of an event; providing a program to educate the public on the harmful effects of prolonged exposure to emissions associated with an exceptional event; and implementing reasonable measures to mitigate the public health impacts of an exceptional event (e.g., the implementation of control measures to abate or minimize the effect of high concentrations of emissions associated with an exceptional event). In cases where

control measures are required to address the impacts associated with an exceptional event, the State would implement the required measures on an episodic basis, meaning in response to a specific event that affects the air quality of a particular area.

In cases where anthropogenic sources contribute to emissions related to a recurring natural event, appropriate control measures would have to be implemented on all significant contributing anthropogenic sources related to the event in the affected area.[10] Natural events, which are defined as a class of exceptional events under this rule, may recur frequently in affected areas. Under this option, as well as under Option 3 below, after a natural event occurs, and it is determined that anthropogenic sources have significantly contributed to the emissions associated with that event, EPA is proposing that at a minimum, Reasonably Available Control Measures (RACM) must be implemented on the anthropogenic sources that contributed to the emissions associated with the event. Reasonable Available Control Measures are defined as those control measures that are considered to be reasonable, and

economically feasible, to implement in an area for a given source type. States should consult the most recent EPA control guidance for the affected pollutant to determine what control measures might be considered as RACM for the affected source types associated with emissions due to a natural event. This requirement is also consistent with the policy currently being implemented under the "PM_{10} Natural Events Policy."

Also, EPA requests comments on whether, instead of RACM, the appropriate level of controls that should be implemented on these source types is Best Available Control Measures (BACM). Best Available Control Measures is a term first identified in the CAA under part D, subpart 4, related to the implementation of the PM_{10} standard. For PM_{10}, BACM are defined as techniques that achieve the maximum degree of emissions reductions from a source as determined on a case-by-case basis, considering both the technological and economic feasibility of implementing the control measures for the affected source (59 FR 42010; August 16, 1994). Currently, EPA requires the

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[10] In the case of the proposed NAAQS for $PM_{10-2.5}$, these options would not apply to sources which are proposed to be excluded from consideration, e.g., agriculture and mining activities.

implementation of BACM on contributing anthropogenic sources under the PM_{10} Natural Events Policy for high wind events. Under this option, as well as under Option 3 below, the State would also be required to submit the mitigation plan for the affected area to the appropriate EPA Regional Office for review and concurrence. Once the State has received concurrence from the Regional Office on the control measures identified for the anthropogenic sources contributing to exceedances associated with natural events, the State would be required to include the measures as a part of its section 110(a)(1) SIP related to the mitigation plan for the area. As is the case with the control plans required for emergency episode plans under section 110(g), the State will not be required to submit the specific control measures as a part of the mitigation plan to EPA to be made federally enforceable. Pursuant to section 107(d)(3)and section 319 (b)(3)(B) of the CAA, it is EPA's intention to adopt a flexible approach and not redesignate an area as nonattainment, or seek a SIP call for an area, so long as the State continues to implement the requirements related to the mitigation plan for the area, as well as the control measures for significant contributing anthropogenic sources related to a natural event.

Where a State provides adequate documentation to show that RACM was being implemented for the affected sources at the time that the natural event in question occurred, a State need not implement further control measures in the area related to the natural event. In cases where RACM was not implemented for contributing anthropogenic sources at the time of the natural event, the State would be required to implement RACM as expeditiously as practicable, but in no case later than 18 months from the end of the calendar quarter in which the event occurred. The EPA requests comments on whether this proposed time period is appropriate for the implementation of RACM for significant contributing anthropogenic sources under this option or whether another time period is more appropriate.

The advantage of this particular option is that all States would have a general plan in place for how to address exceptional events once they occur and could take immediate action to protect public health. It would also allow States to evaluate proactively what actions need to be taken to address anthropogenic sources related to exceptional events, and to consider the most efficient and effective ways to educate the sensitive populations most likely to be harmed should an event occur.

It is important to note that if we selected Option 3

regarding the timeline for flagging of data and submission of demonstrations, a disadvantage would be that flagging and demonstrations could potentially be delayed significantly past the time when States would be required to implement RACM under this option for mitigation plans. We request comment on when RACM should be implemented by States in the event that we select Flagging and Demonstration Option 3.

C.Option 3: The Development of a Mitigation Plan for Episodic Events

Under this option, where appropriate, EPA would require a State to develop and implement a mitigation plan for an area following the occurrence of an exceptional event. This is in contrast to Option 2 above, which would require each State to adopt a plan under section 110 of the CAA containing the general provisions of a mitigation plan in advance of the occurrence of any exceptional event. Under this third option, the mitigation plan would only be developed by the State following the occurrence of an exceptional event for which a State requested exclusion of air quality data. The mitigation plan would be required to address the actions that would be taken by the State related to future similar events, yet could be consistent with the principles and requirements of section 319. The

mitigation plan under this option would have the same provisions to plans developed under Option 2 above, including the requirements to notify the public that an event is expected to occur, or is occurring, or has occurred, to provide for public education related to the health effects associated with the event, and to identify the actions that would be taken by the State to mitigate the impact of any recurrence of the event on public health. The mitigation plan must include a detailed description of planned actions that would be implemented if the event recurs. It would also provide for an implementation schedule which identifies the actions that would be taken related to the recurrence of an event, and it should identify the principal parties that would be responsible for carrying out the stated actions under the mitigation plan.

In cases where a State intends to request that EPA exclude data from regulatory consideration that has been affected by an exceptional event under this option, the State must submit the plan to EPA for review and concurrence. However, EPA will not take action to make the mitigation plan federally enforceable. Under this option States would develop a mitigation plan for an area where an exceptional event has caused an exceedance or violation of

a NAAQS no later than 18 months following the end of the calendar quarter in which the event occurred. The EPA requests comments on whether 18 months is an appropriate time period for the development and adoption of a mitigation plan under this option or whether another time period is more appropriate.

As stated in Option 2 above, in cases where anthropogenic sources contribute to emissions related to a recurring natural event, RACM must be implemented for all significant contributing anthropogenic sources. Where a State provides adequate documentation to show that RACM was being implemented for the affected sources in the area at the time that the event occurred, no action would be required by the State to implement further control measures related to the event for the affected area. In cases where a determination is made that RACM was not being implemented for significant contributing anthropogenic sources at the time of the event, the State would be required to adopt and implement RACM as expeditiously as practicable, but in no case later than 3 years following the end of the calendar quarter in which the event occurred. The EPA requests comment on the appropriateness of the time period being proposed for the implementation of control measures related to significant contributing anthropogenic sources

associated with a recurring natural event under this option.

An advantage of this alternative is that a State can more carefully tailor the actions that it will take to mitigate the effect of the exceptional event based on its prior experience, which will help ensure protection of public health. However, the disadvantage of this particular option is that it would apply more specifically to one type of event, so that if a new or different type of exceptional event occurred, there would be no provisions in place under the mitigation plan to address it. Each time a new type of event occurs, the State would need to submit or revise the plan to address the new event.

D. Option 4: Do Not Require States to Adopt and Implement Specific Mitigation Plans or Measures under this Rule

Under this option, EPA would not require a State to develop and implement a mitigation plan for exceptional events, or to take specific mitigation measures as described in options 1-3 in order for EPA to exclude data from regulatory consideration because it results from an exceptional event. This approach would allow States to have the maximum degree of flexibility in determining what actions should be taken to mitigate the impacts of exceptional events, e.g., public notification, public

education, efforts to reduce exposures, or other necessary measures to safeguard public health. Thus, States would not be obligated to take any particular actions to mitigate exposures such as those in Option 1, to develop and implement a formal mitigation plan as part of the SIP such as that in proposed Option 2, or to develop a more formal plan with requirements not a part of the SIP such as that in proposed Option 3.

This proposed approach would require a much less formal method for States to take necessary measures to safeguard public health, yet could be consistent with both the principles and requirements of section 319. The statute does not identify specific ways in which EPA must satisfy its principles and requirements. Moreover, as detailed above, EPA is proposing to exclude only certain types of exceptional events from regulatory determinations with respect to the NAAQS. In section IV, EPA is proposing options for percentile criteria, case-by-case evaluation, and establishment of a “but for” test in order for an event to qualify as an exceptional event for which data can be excluded with respect to exceedences or violations of the NAAQS. These requirements, in and of themselves, may offer appropriate protection of public health. Under this view, EPA should give States broad flexibility in determining how

best to respond to individual exceptional events. Given the States' concern with the health of their citizens, and taking into consideration the other requirements of this rule, in this view States would have sufficient incentive to take appropriate actions to protect public health.

One benefit of this option is that it would allow States to maintain the maximum degree of flexibility to respond to exceptional events and to take appropriate actions to protect public health without unnecessarily limiting their ability to seek exceptional events treatment for the data. One potential limitation of this proposed approach is that it might result in inconsistencies among States in addressing exceptional events and in mitigating the impacts of those events.

The EPA requests comments on all options described above. Additionally, EPA requests comments on specific modifications that should be made to one or more of the options provided above, or on any combination of these options.

VI. Special Treatment of Certain Events Under this Rule

As stated in section III.C., above, this proposed rule applies to data affected by natural events, which are a subset of exceptional events, at air quality monitoring sites where it has been determined that concentrations due

to these events have caused or substantially contributed to exceedances or violations of the NAAQS in an affected area. This proposed rule applies to several types of natural events, including volcanic and seismic actives, natural disasters, high wind events, unwanted fires, and stratospheric ozone intrusions, and to transported pollution originating from national and international sources that otherwise meets the criteria and requirements for exceptional events. Some types of exceptional events have unusual characteristics which require special consideration in the context of this proposed rulemaking. We discuss each of these special issues, and the necessary accommodations, below

A. Volcanic and Seismic Activities

Volcanic and seismic activities may affect air quality for an extended period of time after the initial occurrence of the event in question. Therefore, EPA believes it is appropriate to consider an extended timeframe for flagging and exclusion of data associated with such events. Specifically, EPA is proposing that emissions attributed to anthropogenic activities that re-entrain volcanic ash and dust from seismic activity during the first year (12 months) following an event will be treated as due to the natural event. Based on prior experiences, and on

consultation with States, we believe that 1 year is an adequate amount of time for cleaning ash deposits from areas where anthropogenic activities (e.g., vehicle traffic) may cause re-entrainment and possible exceedances of the particulate matter NAAQS. After a year, however, exceedances or violations due to re-entrainment of ash deposits will not be provided special consideration under this rule. The EPA, however, requests comments on whether another time period is more appropriate and reasonable to allow for clean up of ash deposits following volcanic or seismic activity.

B. High Wind Events

Where high wind events result in exceedances or violations of $PM_{2.5}$ standards, we are proposing that they will be treated as natural events pursuant to this proposed rule if there is a clear causal relationship demonstrated between the exceedances measured and the high wind event in question, and if anthropogenic activities which contribute to $PM_{2.5}$ emissions in conjunction with the high wind event are reasonably well controlled.

For the proposed 24-hour $PM_{10-2.5}$ standard, we propose to exclude measured exceedances from consideration if it is demonstrated that high winds resulted in the transport of airborne particulate matter in concentrations that caused

an exceedance or violation of the NAAQS.[11] States would be expected to control emissions from contributing anthropogenic sources as appropriate under the definition of the proposed $PM_{10-2.5}$ indicator.

C. Stratospheric Ozone Intrusion

Consideration of stratospheric ozone intrusions applies only to the 8-hour ozone standard. The occurrence of such inversions is extremely difficult to measure or document given currently measured meteorological parameters. The infrequence, short duration, and localized nature of such events makes it difficult to use currently available, general meteorological data, which are usually collected at isolated locations like airports, to determine whether a stratospheric ozone intrusion has occurred. The EPA believes it is important to differentiate between stratospheric ozone intrusion, which is an exceptional event for the purpose of flagging data, and other non-exceptional meteorological events. Although data have been identified in the past showing the result of stratospheric

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[11] As discussed in rules proposed at 71 FR 2665-2668, January 17, 2006, and 71 FR 2710 at 2731, 2736-40, January 17, 2006, where properly sited monitors show exceedances or violations of proposed $PM_{10-2.5}$ standards, it will generally be presumed that such concentrations are due to emissions of urban origin and therefore subject to regulation, unless shown to be due to an exceptional event.

ozone intrusion, no standard definition or criteria have been established for concrete identification. Therefore, EPA's determination of whether a stratospheric ozone intrusion has occurred is a case-by-case decision based on reasonable judgment considering the season of the year; time of day; persistence, duration, type and severity of accompanying meteorological conditions associated with the ozone measurement in question; and other data showing that conditions were not conducive to local high ozone production but for this intrusion.

VII. Treatment of Fireworks Displays

While we are not including fireworks displays in our proposed rule governing exceptional events, we are proposing as a policy matter to address certain displays in a manner similar to exceptional events. Some national and/or cultural traditions, such as July 4th Independence Day and Chinese New Year, have long included fireworks displays as important--indeed, many might assert essential--elements of their observances. While this issue is not specifically covered in CAA section 319, EPA believes that Congress did not intend to require EPA to consider air quality violations associated with such cultural traditions in regulatory determinations to prohibit these activities.

We are not aware of any information showing adverse

air quality impacts caused by individual use of fireworks in relatively small quantities. However, analyses of monitoring data collected on July 4th and July 5th indicates that large fireworks displays, in combination with other sources, can in some circumstances be potentially significant sources of air pollutant emissions. For this reason, States are encouraged to take reasonable precautions to minimize exposures to emissions from fireworks displays, as well as to manage associated activities that may have significant impact in the areas where these events are held. Such actions may include alerting the public to the potential for short-term air quality impacts that may result from the discharge of fireworks at large displays, monitoring prevailing winds, and locating displays downwind of concentrations of people. States are encouraged, too, to explore the use of lower-emitting fireworks, such as those developed for frequent use at amusement parks.

For these reasons, where States can show that the use of fireworks displays is integral to significant traditional national, ethnic, or other cultural events, we are proposing that air quality data associated with such events could be excluded. We request comments on alternative approaches to addressing emissions from

fireworks at such events.

VIII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), EPA must determine whether the regulatory action is "significant" and, therefore, subject to the Office of Management and Budget (OMB) review and the requirements of the Executive Order. The order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or Tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of

legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, it has been determined that the proposed rule is a "significant regulatory action." As such, this proposed rule was submitted to OMB for review under Executive Order 12866.

B. Paperwork Reduction Act

This action does not impose an information collection burden. The information being requested under this rule is consistent with current requirements related to information needed to verify the authenticity of monitoring data submitted to EPA's AQS data base, and to justify data that has been flagged as being affected by exceptional or natural events. The OMB has previously approved the information collection requirements contained in the existing regulations at 40 CFR part 58.01, subparts A through E, under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and assigned OMB control number 2060-0084, EPA ICR number 940.17. A copy of the OMB approved Information Collection Request (ICR) may be obtained from Susan Auby, Collection Strategies Division; U.S. Environmental Protection Agency (2822T); 1200 Pennsylvania Ave., NW, Washington, DC 20460 or by calling (202) 566-1672.

Burden means that total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in the CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act (APA) or any other statute unless the EPA certifies that the rule will not

have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions. For the purpose of assessing the impacts of today's proposed rule on small entities, small entity is defined as: (1) a small business that is a small industry entity as defined in the U.S. Small Business Administration (SBA) size standards. (See 13 CFR 121); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominate in its field.

Courts have interpreted the RFA to require a regulatory flexibility analysis only when small entities will be subject to the requirements of the rule. See, Michigan v. EPA, 213 F.3d 663, 668-69 (D.C. Cir., 2000), cert. den., 532 U.S. 903 (2001). This rule would not establish requirements applicable to small entities. Instead, this rule provides the criteria necessary for State, local, or Tribal air quality agencies to meet in order to properly flag data as being influenced by an exceptional or natural event. The rule also provides

information concerning what action should be taken by a State, local, or Tribal air quality agency to protect public health once EPA has provided a concurrence on data that has been flagged as being influenced by an exceptional or natural event. Because affected States would have discretion to choose the sources that may need to be regulated and the emissions reductions each selected source would have to achieve using RACM or BACM related to anthropogenic sources in the area determined to be influenced by an exceptional or natural event, EPA could not predict the effect of the rule on small entities.

After considering the economic impacts of today's proposed rule on small entities, I certify that this rule will not have a significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal Agencies to assess the effects of their regulatory actions on State, local and Tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State

governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small government on compliance with regulatory requirements.

Today’s action does not include a Federal mandate

within the meaning of UMRA that may result in expenditures of $100 million or more in any 1 year by either State, local, or Tribal governments in the aggregate or to the private sector, and therefore, is not subject to the requirements of sections 202 and 205 of the UMRA.

Inasmuch as this action simply provides the criteria for State, local, or Tribal air quality agencies to flag data to be discounted for regulatory purposes that is being influenced by exceptional or natural events, this proposed Federal action will not impose mandates that will require expenditures of $100 million or more in the aggregate in any 1 year.

E. Executive Order 13132: Federalism

Executive Order 13132, entitled “Federalism” (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.” “Policies that have federalism implications” is defined in the Executive Order to include regulations that have “substantial direct effects on the States, or the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

This proposed rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. The CAA establishes the scheme whereby States take the lead in developing plans to meet the NAAQS. This rule will not modify the relationship of the States and EPA for purposes of developing programs to implement the NAAQS. Thus, Executive Order 13132 does not apply to this rule.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications." This proposed rule does not have "Tribal implications" as specified in Executive Order 13175. The rule provides information concerning what action should be taken by a State, local, or Tribal air quality agency implementing relevant air quality programs to protect public health once EPA has provided a

concurrence on data that has been flagged as being influenced by an exceptional or natural event. The CAA and the Tribal Authority Rule (TAR) give Tribes the opportunity to develop and implement CAA programs, but it leaves to the discretion of the Tribe whether to develop these programs and which programs, or appropriate elements of a program, the Tribe will adopt.

This rule does not have Tribal implications as defined by Executive Order 13175. It does not have a substantial direct effect on one or more Indian Tribes, because no Tribe has implemented an air quality management program related to the PM NAAQS at this time. Furthermore, this rule does not affect the relationship or distribution of power and responsibilities between the Federal government and Indian Tribes. The CAA and the TAR establish the relationship of the Federal government and Tribes in developing plans to attain the NAAQS, and this rule does nothing to modify that relationship. Because this rule does not have Tribal implications, Executive Order 13175 does not apply.

G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

Executive Order 13045: "Protection of Children From Environmental Health and Safety Risks" (62 FR 19885, April

23, 1997) applies to any rule that (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health and safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by EPA.

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because EPA does not have reason to believe that the environmental health risks or safety risks addressed by this rule present a disproportionate risk or safety risk to children. The rule provides information concerning what action should be taken by a State, local, or Tribal air quality agency to protect public health once EPA has provided a concurrence on data that has been flagged as being influenced by an exceptional or natural event.

H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This rule is not a "significant energy action" as

defined in Executive Order 13211, “Actions that Significantly Affect Energy Supply, Distribution, or Use,” (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this rule is not likely to have any adverse energy effects.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer Advancement Act of 1995 (NTTAA), Public Law No. 104-113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impracticable. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when EPA decides not to use available and applicable VCS.

This action does not involve technical standards. Therefore, EPA did not consider the use of any VCS.

List Of Subjects in 40 CFR Parts 50 and 51

Environmental protection, Air pollution control, National parks, Wilderness areas.

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Dated:

_____

Stephen L. Johnson,
Administrator

In consideration of the foregoing, the Environmental Protection Agency proposes to amend 40 CFR parts 50 and 51 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 to add paragraphs (j) and (k) to read as follows:

§50.1 Definitions.

* * * * *

(j) Exceptional event means an event that affects air quality; is not reasonably controllable or preventable; is a natural event or an event caused by human activity that is unlikely to recur at a particular location; and is determined by the Administrator in accordance with 40 CFR 50.13 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 in which human activity plays little or no direct causal role.

(l) Exceedance with respect to a national ambient air quality standard means one occurrence of a measured or modeled concentration that exceeds the specified concentration level of such standard for the averaging period specified by the standard.

3. Add §50.14 to read as follows:

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

(a) Requirements.

(1) A State may request EPA to exclude data showing exceedances or violations of the national ambient air quality standards that are directly due to an exceptional event from use in determinations by demonstrating to EPA's satisfaction that such event caused a specific air pollution concentration at a particular air quality monitoring location.

(2) Demonstrations may include any reliable and accurate data, but must demonstrate a clear causal relationship between the measured exceedance or violation of such standards and the event.

(b) Determinations by EPA.

(1) EPA shall exclude data due to such event from use in determinations where a State demonstrates:

(i) T~~t~~hat an exceptional event caused a specific air

pollution concentration resulting in an exceedance or violation of the national ambient air quality standards at a particular air quality monitoring location; and

(ii) Tthat it has taken appropriate actions to protect public health.

(2) [Reserved]

(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]

OPTION 1 for paragraph (c)(2):

(2) Flagging of data.

(i) A State shall notify EPA of its intent to exclude one or more measured exceedances of an applicable ambient air quality standard as being due to an exceptional event by placing a flag in the appropriate field for the data record of concern in accordance with the schedules for submission of data to the AQS data base in 40 CFR 58.35.

(ii) Flags placed on data in accordance with this section shall be deemed informational only, and the data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until EPA notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS data base.

(3) Submission of demonstrations.

(i) A State that has flagged data as being due to an exceptional event shall, after notice and opportunity for public comment, submit a complete demonstration to EPA in support of its request for exclusion not later than 180 days following the end of the calendar quarter in which the flagged concentration was recorded.

(A)~~.~~ Extensions. Where a State demonstrates to the satisfaction of EPA that additional time is needed to obtain information or complete analyses to demonstrate that an exceptional event caused an exceedance or violation of an ambient air quality standard, and that such information is

likely to have significant probative value, then EPA may grant an extension of the date for submission of demonstrations of not more than an additional 90 days.

(B). [Reserved]

(ii) [Reserved]

(4) EPA review and concurrence or nonconcurrence.

(i) EPA shall complete its review and concur or nonconcur with a State's request for exclusion not later than 30 days following receipt of a complete submission from the State. EPA shall notify the State of its concurrence or nonconcurrence by placing a flag in the appropriate field for the data record in the AQS data base.

(A). Extensions. Where additional time is needed to complete its review of the State's demonstration, EPA may extend the time for review by not more than an additional 30 days.

(B). [Reserved]

(ii) [Reserved]

OPTION 2 for paragraph (c)(2):

(2) Flagging of data.

(i) A State shall notify EPA of its intent to exclude one or more measured exceedances of an applicable ambient air quality standard as being due to an exceptional event by placing a flag in the appropriate field for the data record of concern in accordance with the schedules for submission of data to the AQS data base in 40 CFR 58.35.

(ii) Flags placed on data in accordance with this section shall be deemed informational only, and the data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until EPA notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS data base.

(3) Submission of demonstrations.

(i) A State that has flagged data as being due to an exceptional event shall, after notice and opportunity for public comment, submit a complete demonstration to EPA in support of its request for exclusion not later than 3 years following the end of the calendar quarter in which the flagged concentration was recorded.

(ii) [Reserved]

(4) EPA review and concurrence or nonconcurrence.

(i) EPA shall complete its review and concur or nonconcur with a State's request for exclusion not later than 30 days following receipt of a complete submission from the State. EPA shall notify the State of its concurrence or nonconcurrence by placing a flag in the appropriate field for the data record in the AQS data base.

(A)~~.~~ Extensions. Where additional time is needed to complete its review of the State's demonstration, EPA may extend the time for review by not more than an additional 30 days.

(B)~~.~~ [Reserved]

(ii) [Reserved]

OPTION 3 for paragraph (c)(2):

(2) Flagging of data.

(i) A State shall notify EPA of its intent to exclude one or more measured exceedances of an applicable ambient air quality standard as being due to an exceptional event by placing a flag in the appropriate field for the data record of concern

not later than 180 days prior to the date on which EPA intends to propose determinations with respect to violations of applicable national ambient air quality standards.

(ii) Flags placed on data in accordance with this section shall be deemed informational only, and the data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until EPA notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS data base.

(3) Submission of demonstrations.

(i) A State that has flagged data as being due to an exceptional event shall, after notice and opportunity for public comment, submit a complete demonstration to EPA in support of its request for exclusion not later than 180 days prior to the date on which EPA intends to propose determinations with respect to violations of applicable national ambient air quality standards.

(ii) [Reserved]

(4) EPA review and concurrence or nonconcurrence.

(i) EPA shall complete its review and concur or nonconcur with a State's request for exclusion not later than 30 days following receipt of a complete submission from the State. EPA shall notify the State of its concurrence or nonconcurrence by placing a flag in the appropriate field for the data record in the AQS data base.

(A.) Extensions. Where additional time is needed to complete its review of the State's demonstration, EPA may extend the time for review by not more than an additional 30 days.

(B). [Reserved]

(ii) [Reserved]

PART 51 NATIONAL PRIMARY AND SECONDARY NATIONAL AMBIENT AIR QUALITY STANDARDS

1. The authority citation for part 51 continues to read as follows:

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

2. Adding ~~Amend~~ Subpart Y consisting of §51.920 as follows

Subpart Y – Exceptional Events

OPTION 1 ~~(Proposed Option)~~ for §51.920__:

§51.920__ Mitigation of Exceptional Events.

(a) As a condition for EPA's approval of a request to exclude air quality data due to exceptional events from use, each State must take appropriate and reasonable actions to protect public health from exceedances or violations of the national ambient air quality standards due to exceptional events. The State must:

(1) Provide for prompt public notification whenever air quality concentrations exceed or are expected to exceed an applicable ambient air quality standard.

(2) Provide for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event.

(3) Provide for the implementation of reasonable measures to protect public health from exceedances or violations of ambient air quality standards caused by exceptional events.

(b) [Reserved]

OPTION 2 for §51.920__:

§51.920__ Mitigation of Exceptional Events.

(a) As a condition for EPA's approval of a request to exclude air quality data due to exceptional events from use, each plan must include a mitigation action plan which provides for appropriate actions to protect public health from exceedances or violations of the national ambient air quality standards due to exceptional events. Each mitigation action plan must:

(1) Provide for prompt public notification whenever air quality concentrations exceed or are expected to exceed an applicable ambient air quality standard.

(2) Provide for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event.

(3) Describe the procedures by which appropriate actions will be identified and taken to prevent or mitigate public health threats associated with exceptional events.

(4) Provide for the implementation of reasonably available control measures to reduce emissions from those anthropogenic sources which are not

exempt under §50.13(a)(2)(ii) and which interact with recurring natural events to contribute to exceedances or violations of applicable national ambient air quality standards.

(b) States should periodically reevaluate mitigation action plans for adequacy and revise them as necessary and appropriate.

OPTION 3 for §51.920__:

§51.920__ Mitigation of Exceptional Events.

(a) As a condition for EPA's approval of a request to exclude air quality data due to exceptional events from use in determinations with respect to exceedances or violations of the national ambient air quality standards, each State must adopt and implement a mitigation action plan for an affected area which provides for appropriate actions to protect public health from exceedances or violations of national ambient air quality standards due to exceptional events which is to be implemented in an affected area on an episodic basis. Mitigation action plans need not be incorporated into the applicable implementation plan, but each mitigation action plan must:

(1) Provide for prompt public notification whenever air quality concentrations exceed or are expected to exceed an applicable ambient air quality standard.

(2) Provide for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event.

(3) Describe the procedures by which appropriate actions will be identified and taken to prevent or mitigate public health threats associated with exceptional events.

(4) Provide for the implementation of reasonably available control measures to reduce emissions from those anthropogenic sources which are not exempt under §50.13(a)(2)(ii) and which interact with recurring natural events to contribute to exceedances or violations of applicable national ambient air quality standards.

(b) States should periodically reevaluate mitigation action plans for adequacy and revise them as necessary and appropriate.