ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA–R09–OAR–2006–0583; FRL–8459–2]

Approval and Promulgation of Implementation Plans; Designation of Areas for Air Quality Planning Purposes; State of California; PM–10; Affirmation of Determination of Attainment for the San Joaquin Valley Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In a final rule published in the **Federal Register** on October 30, 2006, EPA determined that the San Joaquin Valley nonattainment area (SJV or the Valley) in California attained the National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM–10). Since that final determination of attainment, the State has flagged several exceedances of the PM–10 standard in 2006 as being caused by exceptional events, i.e., high winds, and requested that these data be excluded from attainment determinations. EPA is proposing to concur with the State's request to flag these exceedances and thus to exclude that data from use in determining PM–10 attainment for the SJV. EPA is also proposing to exclude from use in determining attainment for the SJV exceedances recorded at a monitor located at the Santa Rosa Rancheria, tribal lands within the boundaries of the SJV, on two bases: The exceedances occurred while the monitor was operating in very close proximity to construction activities and, as such, the monitor was not properly sited during that time for purposes of comparison to the NAAQS; and the exceedances were caused by an exceptional event. EPA is proposing to concur with the Santa Rosa Rancheria Tribe's request to flag these exceedances as due to an exceptional event. As a result, EPA is proposing to affirm its determination that the SJV has attained the PM–10 standard based on EPA's evaluation of quality-assured data through December 2006. In addition to providing the public with an opportunity to comment on EPA's evaluation and proposed concurrence on flagged exceedances that occurred through the end of calendar year 2006, EPA is in this proposed rule addressing issues raised in petitions for reconsideration and withdrawal of EPA's 2006 determination of attainment, filed by Earthjustice on behalf of the Sierra Club, Latino Issues Forum and others.

DATES: Written comments must be received on or before September 26, 2007.

ADDRESSES: Submit comments, identified by docket number EPA–R09–OAR–2006–0583, by one of the following methods:

(1) Federal eRulemaking portal: *http://www.regulations.gov.* Follow the on-line instructions.

(2) E-mail: *lo.doris@epa.gov.*

(3) Mail or deliver: Doris Lo (AIR–2), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105–3901.

Instructions: All comments 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 Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through the *www.regulations.gov* or e-mail. *www.regulations.gov* is an anonymous access system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. 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.

Docket: The index to the docket for this action is available electronically at *www.regulations.gov* and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed directly below.

FOR FURTHER INFORMATION CONTACT: Doris Lo, EPA Region IX, (415) 972–3959, *lo.doris@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document, wherever ''we,'' ''us,'' or ''our'' are used, we mean EPA.

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I. Background

On October 17, 2006, EPA finalized its determination that the SJV attained the NAAQS for PM–10, and on October 30, 2006, EPA published this determination in the **Federal Register**. 71 FR 63642. This determination was based upon monitored air quality data for the PM–10 NAAQS [1] during the years 2003–2005 and all available quality-assured data through July 31, 2006. For a more detailed discussion of the related background for the SJV, please refer to the proposed and final rules at 71 FR 40952 (July 19, 2006) and 71 FR 63642. Shortly before EPA issued the determination of attainment, EPA learned of preliminary data indicating that exceedances had occurred on

[1] EPA's final determination of attainment addressed both the 24-hour and annual PM–10 standards; however, on October 17, 2006, effective on December 18, 2006, EPA revoked the annual PM–10 standard. 71 FR 61144.

September 22, 2006, at several monitors, and that the State intended to flag [2] them as caused by natural events and to request that EPA concur with these flags. EPA stated that because the data were preliminary and because they may qualify as natural events, EPA would proceed with its determination of attainment at that time. EPA further indicated that once quality-assured data were available EPA would review those data and consider whether the determination of attainment should be withdrawn.

Since the October 2006 final determination of attainment, EPA has obtained information regarding the PM–10 exceedances summarized in Table 1, which were recorded at various monitors within the boundaries of the SJV:

TABLE 1.—SUMMARY OF EXCEEDANCES EVALUATED FOR TODAY'S PROPOSED RULE

Date of exceedance	Monitor location (type(s))	Concentration (μg/m3)
September 22, 2006	Corcoran (FRM, FEM)*	215, 261
	Bakersfield-Golden (FRM, FEM)	157, 170
	Oildale (FRM)	162
October 25, 2006	Corcoran (FEM)	304
	Bakersfield-Golden State Highway (FEM)	193
December 8, 2006	Corcoran (FEM)	162
	Bakersfield-Golden State Highway (FEM)	213
September 14, 2006	Santa Rosa Rancheria (FRM)	190
September 20, 2006	Santa Rosa Rancheria (FRM)	158
October 26, 2006	Santa Rosa Rancheria (FRM)	157

* FRM = Federal Reference Method; FEM = Federal Equivalent Method.[3]

On April 24, 2007, the State submitted to EPA documentation supporting its claim that the September 22, 2006 exceedances were caused by high winds and wildfires. This submittal was supplemented with additional documentation on July 10, 2007. On May 1, 2007, the State submitted to EPA documentation supporting its claim that the October 25, 2006 exceedances were caused by high winds. On June 12, 2007, the State submitted to EPA documentation supporting its claim that the December 8, 2006 exceedances were caused by high winds. The State believes that all of these exceedances qualify as natural events and that the data should thus be excluded from consideration in the attainment determination.

On July 9, 2007, EPA met with a representative of the Santa Rosa Rancheria EPA to discuss exceedances recorded on September 14, September 20 and October 26, 2006. The Tribe has flagged these exceedances as being caused by an exceptional event related to construction activities and EPA has compiled documentation to support that claim.

II. EPA's Proposed Actions

In this proposed rule, EPA is proposing to concur with the State's request to flag exceedances of the PM–10 standard within the SJV on September 22, October 25 and December 8, 2006 as being caused by exceptional events, i.e., high winds, and thus to exclude these data from use in determining PM–10 attainment for the SJV. EPA is also proposing to exclude exceedances recorded at the Santa Rosa Rancheria, tribal lands within the SJV, on September 14, September 20 and October 26, 2006 from use in determining attainment for the SJV, on two bases: (1) The exceedances occurred while the monitor was operating in very close proximity to construction activities and, as such, the monitor was not properly sited during that time for purposes of comparison to the NAAQS; and (2) the exceedances were caused by an exceptional event, i.e., construction activity in very close proximity to the monitor. The Tribe has flagged those exceedances, and EPA is proposing to concur with those flags.

As a result, EPA is proposing to affirm its October 2006 attainment determination based on its evaluation of quality-assured data from September 14 through December 31, 2006. After receiving and considering all relevant public comments on our proposed rule, we will publish our final determination as to whether we will concur with the State's and Tribe's requests to flag the exceedances discussed above as affected by exceptional events and to exclude them from consideration in our attainment determination. We will also publish our determination as to whether we will exclude the exceedances at the Santa Rosa Rancheria as a result of the monitor siting. EPA is not taking comment in these proposed actions on any issues that were the subject of the 2006 attainment determination rulemaking except to the extent that they affect EPA's ability to determine that the SJV continued to attain the PM–10 standard through 2006.

In this proposed rule we are also addressing relevant issues raised in the petition for reconsideration and petition to withdraw the determination of attainment filed by the Latino Issues Forum and others.

In our 2006 attainment determination we stated that if, after the September 22, 2006 data were quality-assured, and after further evaluating the State's request for exclusion of these data, we determine that the data do not qualify for exclusion and we believe that if included that they would establish that the area is in violation of the NAAQS, EPA would proceed with appropriate rulemaking action to withdraw its determination of attainment. 71 FR 63642. Both EPA's natural/exceptional events policies and its exceptional events rule anticipate that the Agency will concur or nonconcur on a state's request to exclude data by letter rather than rulemaking.

[2] 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 Air Quality System (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. See 71 FR 12592, 12598 (March 10, 2006).

[3] A federal reference method (FRM) is an air sample collection and analysis method which follows the procedures detailed in the appendices to 40 CFR part 50. A federal equivalent method (FEM) is an air sampling collection and analysis method which does not follow the reference procedures in 40 CFR part 50, but has been certified and designated by the EPA as obtaining ''equivalent'' results.

Generally we would initiate rulemaking following an attainment determination for an area only if we had preliminarily concluded that a withdrawal of that determination would be appropriate. That is not the case here. However, in this instance both because EPA had indicated in its final action that it would reassess the attainment determination once it had quality-assured data for the September 22, 2006 exceedances and because of the issues raised by the petitions pending before the Agency and discussed below, we are proposing to concur with the State's and Tribe's requested flags and affirm our 2006 attainment determination via notice and comment rulemaking. Because we generally make determinations of attainment on a calendar year basis, our proposed rule addresses quality assured exceedances from September 14 through December 31, 2006. Moreover the petitions address exceedances within this timeframe.

III. Summary of Litigation and Administrative Proceedings

Earthjustice filed three petitions related to EPA's determination of attainment for the SJV. On December 27, 2006, Earthjustice, on behalf of Latino Issues Forum, Medical Advocates for Healthy Air and Sierra Club, filed in the U.S. Court of Appeals for the 9th Circuit a petition for review of EPA's October 2006 determination under the Clean Air Act that the SJV has attained the PM–10 standard. *Latino Issues Forum* v. *EPA,* No. 06–75831 (9th Cir.). On December 29, 2006, Earthjustice also filed with EPA a petition for reconsideration of our attainment determination. In the petition, Earthjustice alleges, among other things, that EPA improperly ignored September 22, 2006 PM–10 exceedances in the SJV that were not subject to public notice and comment. Finally, on March 21, 2007, Earthjustice filed a petition for withdrawal of our attainment determination. In this petition, Earthjustice alleges that the attainment determination must be withdrawn because, among other things, the exceedances that occurred in September and October 2006 do not qualify as exceptional events. EPA addresses issues raised in both of these administrative petitions in this proposed rule.

IV. EPA's Exceptional Events Rule

On March 22, 2007, EPA issued a final rule governing the review and handling of air quality data influenced by exceptional events. 72 FR 13560. The rule became effective on May 21, 2007 and implements 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. In the rule, EPA establishes procedures and criteria related to the identification, evaluation, interpretation, and use of air quality monitoring data related to the ozone and particulate matter NAAQS where states petition EPA to exclude data that are affected by exceptional events from certain regulatory actions under the CAA. The rule is codified at 40 CFR 50.1, 50.14, and 51.920. 72 FR at 13580–13581.

In the preamble to the final rule, EPA also addresses its applicability to Indian Tribes. Where, as here, the Santa Rosa Rancheria Tribe operates an air quality monitor only in order to gather data for informational purposes but does not implement other programs such as mitigating the effects of exceptional events, it is EPA's responsibility to ensure that any exclusion or discounting of data in Indian country areas comports with the rule's procedures and requirements. EPA intends to work with tribes on the implementation of the rule. 72 FR at 13563.

In 1986 and 1996 EPA issued guidance to address the use of data influenced by exceptional and natural events: ''Guidance on the Identification and Use of Air Quality Data Affected by Exceptional Events'' (July 1986) and ''Areas Affected by PM–10 Natural Events,'' May 30, 1996. CAA Section 319, as amended by SAFE–TEA–LU, states that these guidance documents continue to apply until the effective date of a final regulation promulgated under section 319(b)(2). See CAA Section 319(b)(4). SAFE–TEA–LU did not however address those situations where EPA had not made a determination prior to the effective date of the rule whether an exceptional event had occurred after a state had flagged data and submitted a demonstration in a timely manner to show that such data reflected NAAQS exceedances that were caused by an exceptional event. In these circumstances, EPA believes that in the interests of equity and administrative efficiency, a state seeking to exclude data affected by exceptional events should, for a limited period of time, be able to choose to comply with either the provisions of the rule or those of the guidance documents for a limited period of time. This approach would have some advantages, such as allowing the state to avoid duplicating its demonstration process and completing the decisionmaking process already underway. EPA believes that it is reasonable to use this approach until December 31, 2007 to complete the transition from the policies to the rule. However, unless the state in the circumstances described above, specifically requests that EPA evaluate a natural or exceptional event demonstration under the guidance documents, EPA will presume that the rule applies.

Under 40 CFR 50.14(j), an ''exceptional event,'' with specified exceptions not relevant here, is defined as one ''that affects air quality, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the Administrator in accordance with 40 CFR 50.14 ['treatment of air quality monitoring data influenced by exceptional events'] to be an exceptional event.'' A ''natural event'' is defined as one ''in which human activity plays little or no direct causal role.'' 40 CFR 50.14(k).[4]

The rule establishes a multi-step process for identification by states, tribes and local agencies of data and submission of the requisite demonstrations to EPA. 72 FR at 13571. In short, a state must notify EPA of its intent to exclude measured exceedances of a NAAQS as being due to an exceptional event by ''flagging'' the data in EPA's AQS database. 40 CFR 50.14(c)(2)(i). For PM–10, the state should submit the flags, accompanied by an initial description of the event, by July 1st of the calendar year following the year in which the flagged measurement occurred. 40 CFR 50.14(c)(2)(iii). A state that has flagged data as being due to an exceptional event and is requesting its exclusion must, after notice and opportunity for public comment, submit a demonstration that to EPA's satisfaction shows that the flagged event caused a specific concentration in excess of the NAAQS at the particular location to justify data exclusion. This demonstration must be submitted to EPA within 3 years of the calendar quarter following the event, but no later than 12 months prior to an EPA regulatory decision. A state must submit the public comments it received along with its demonstration to EPA. 40 CFR 50.14(c)(3)(i).

[4] In the preamble to the final rule, EPA discusses specific types of natural events, including high wind events (i.e., those that affect ambient particulate matter concentrations through the raising of dust or through the re-entrainment of material that has been deposited). See 72 FR at 13565–13566 and 13576–13577. EPA's interpretation of the rule with respect to high winds is addressed in section V. below.

In the preamble to the final rule, EPA explained that it will generally review the state's demonstration and provide a concurrence or nonconcurrence on the flag in the AQS database within 60 days of the state's complete submission. EPA expects that, in most cases, this time period should be sufficient to review and provide a concurrence or nonconcurrence regarding a state's request to exclude data affected by an exceptional event. However, for more complex demonstrations, EPA may require additional time to make its decision and will notify the state of the additional time required. 72 FR at 13571. Upon its concurrence on a flag, EPA will exclude the data from use in determinations of NAAQS exceedances and violations. 40 CFR 50.14(b).

The requirements for the demonstration to justify data exclusion that the state must submit, in this instance, to EPA are set forth at 40 CFR 50.14(a), (b)(1), and (c)(3)(iii). In order to be considered for exclusion, the state must show that the event satisfies the criteria in section 50.1(j), there is a clear causal connection between the exceedances and the claimed exceptional event, the event is associated with measured concentration in excess of normal historical fluctuations including background and there would have been no exceedance ''but for'' the event. 40 CFR 50.14(c)(iii)(A)–(D).

One of the requirements of section 50.1(j) is that the exceptional event must be shown to affect air quality, which is met by establishing that the event is associated with a measured exceedance in excess of normal historical fluctuations, including background. 40 CFR 50.14(c)(iii)(B). In addition, as noted above there must be a clear causal relationship between the measurement under consideration and the event that is claimed to have affected the air quality in the area. 40 CFR 50.14(c)(iii)(C). Air quality impact and causal connection may be shown through a number of methods including modeling and speciation analysis. EPA will evaluate whether an event affected air quality and caused a particular concentration using the weight of available evidence and considering the historical frequency of such measured concentrations. States must compare contemporary concentrations with distribution of historical values and these may be presented on a seasonal or other temporal basis. 40 CFR 50.14(a)(2) and (c)(3)(iii)(A) and (C); 72 FR at 13569.

Also, air quality data may not be excluded except where states, tribes, or local agencies show, through a weight of evidence approach, that exceedances or violations of applicable standards would not have occurred ''but for'' the influence of exceptional events. 40 CFR 50.14(c)(3)(iii)(D). 72 FR at 13570–13571. Finally, states must demonstrate that they have provided an opportunity for public comment and must submit any public comments it received to EPA. 40 CFR 50.14(c)(3)(i) and (iv).

States, tribes, or local agencies must also demonstrate that the claimed exceptional event meets the other requirements of § 50.1(j)—that the event is not reasonably preventable or controllable and that the event is either caused by human activity that is unlikely to recur at a particular location or is a natural event. In this instance, the claimed events are high winds, i.e. natural events, and construction, i.e., an event caused by human activity that is unlikely to recur at the particular location.

In order to concur on a state's request to exclude data, EPA must determine that the state's submission is complete and demonstrates to EPA's satisfaction that the exceptional event caused the exceedances. Although states must meet the minimum requirements (e.g. ''but for'' test), EPA did not specify a minimum level of documentation in the rule because the facts and circumstances could vary depending on, among others, meteorology, and geography. Instead, EPA illustrated through examples the kind of information that states could consider in meeting the demonstration requirements of the rule. In describing the documentation process and requirement, EPA also stated that acceptable documentation would be determined through consultation with the EPA regional offices. 72 FR at 13573.

Finally, under 40 CFR 51.930, a state requesting to exclude air quality data due to exceptional events must take appropriate and reasonable actions, including public notification, public education and implementation of measures, to protect public health from exceedances or violations of the NAAQS.

V. EPA's Evaluation of Flagged Exceedances

The State and Tribe have not specifically requested that EPA evaluate the September 14 through December 31, 2006 exceedances (which occurred before the effective date of the Exceptional Events Rule) under EPA's natural events policy or exceptional events policy. Therefore we are evaluating the State's submittals and the Santa Rosa Rancheria exceedances under the Exceptional Events Rule to determine whether they meet both the procedural requirements and the technical criteria for showing that the exceedances are exceptional. We will discuss whether the State's submittal and the exceedances at Santa Rosa Rancheria meet each of these requirements and criteria separately. For each of the exceedances being discussed in today's proposal, EPA bases its evaluation on the procedural requirements and technical criteria and mitigation requirements of the Exceptional Events Rule, as discussed above and summarized below:

Procedural Requirements:

- Data are flagged in EPA's AQS database.
- Public had an opportunity to review and comment on the state's documentation.
- The documentation was submitted to EPA.
- EPA concurs with the state's demonstration.

Technical Criteria:

- The state must show that the event satisfies the criteria in 40 CFR 50.1(j).[5]
- There is a clear causal connection between the exceedance and the claimed exceptional event.
- The event is associated with measured concentration in excess of normal historical fluctuations including background.
- There would have been no exceedances ''but for'' the event.

Mitigation Requirements:

- Provide for prompt public notification of exceedance events.
- Provide for public education on how to minimize exposure.
- Provide for the implementation of appropriate measures to protect the public.

A. September 22, 2006 Exceedances at Corcoran, Bakersfield, and Oildale

The 24-hour PM–10 NAAQS was exceeded at three monitoring locations on September 22, 2006: The Corcoran monitoring site recorded concentrations of 215 $\mu g/m^3$ and 261 $\mu g/m^3$ with a FRM sampler and a FEM automated continuous analyzer,[6] respectively; the

[5] Section 50.1(j) provides the regulatory definition of an exceptional event. ''Exceptional event'' means an event that affects air quality, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the Administrator in accordance with 40 CFR 50.14 to be an exceptional event. It does not include stagnation of air masses or meteorological inversions, a meteorological event involving high temperatures or lack of precipitation, or air pollution relating to source noncompliance.

[6] The FEM monitor currently operated at the Corcoran site is an automated continuous analyzer known as a Tapered Element Oscillating Microbalance (TEOM).

Bakersfield-Golden State Highway monitoring site recorded concentrations of 157 μg/m^3 and 170 μg/m^3 with its FRM sampler and FEM (TEOM) analyzers, respectively; and the Oildale monitoring site recorded a concentration of 162 μg/m^3 with its FRM sampler.

The State concludes that three sources of PM–10 contributed to exceedances of the 24-hour PM–10 NAAQS on this day: Wind-entrained dust from sources in the central and southern SJV, which is identified as the primary source of PM–10; wind-entrained dust from regional sources from the northern SJV; and emissions related to several wildfires which are identified as secondary sources of PM–10.[7] Based on the evidence submitted, EPA agrees with the State's demonstration that high wind-entrained dust from sources in the central and southern SJV caused the exceedances at the three monitoring locations on September 22, 2006.

We do not however agree with the State that emissions from wildfires or regionally transported dust from the northern SJV were significant contributors.

After evaluating the State's demonstration under the technical criteria established in the Exceptional Events Rule, EPA finds that for the Corcoran, Bakersfield and Oildale areas, the State does not demonstrate that emissions from wildfires had a significant impact on the PM–10 concentrations recorded on September 22, 2006. None of the fires cited in the documentation was within the boundaries of the SJV. Further, an independent review of PM–2.5 speciation data collected at Bakersfield and Fresno on the days preceding and after September 22 shows no unusual concentrations of carbon. See *http://www.epa.gov/cgi-bin/htmSQL/mxplorer/query_spe.hsql.* If the fires had had a significant effect on PM–10 concentrations, there would have been evidence of increased carbon (one of the chemical constituents of wood smoke) in the speciation data. The documentation submitted by the State includes mostly anecdotal evidence of the wildfires' impact and satellite photographs showing smoke over parts of California. The anecdotal evidence consists of newspaper reports of reduced visibility due to smoke and the odor of wood smoke, as well as observations from trained weather observers at Lemoore Naval Air Station.[8] EPA finds that the documentation lacks data linking the fires to the concentrations given the distance of the fires and the lack of corroborating speciation data and satellite photographs of the smoke, and newspaper reports do not rise above general or anecdotal evidence to establish a clear causal relationship between the exceedances on September 22, 2006 and the emissions from wildfires.

Similarly, EPA believes that the State's documentation that regional sources of entrained dust impacted monitors in the Corcoran and Bakersfield areas does not show a clear causal relationship between the exceedances and regional transport of PM–10 from the northern SJV. EPA bases this conclusion on its review of the documentation which indicates that while there were high hourly averaged winds and gusts in the northern central valley of California, the State did not present any facts, corroborating evidence or any convincing argument to demonstrate how PM–10 from this area could have reached the southern SJV in concentrations sufficient to contribute to an exceedance of the 24-hour PM–10 NAAQS.

Because EPA does not agree with the State's conclusions with respect to regional transport of PM–10 from the northern SJV and with respect to wildfires, in the following discussion regarding the September 22, 2006 exceedances we refer only to the State's conclusion that these exceedances were caused by wind-entrained dust from sources in the central and southern SJV.

1. Procedural Requirements

a. Data Are Flagged in EPA's AQS Database

All of the September 22, 2006 exceedances were flagged in EPA's AQS database as of July 2007.

b. Public Had an Opportunity To Review and Comment on the State's Documentation

In February 2007, the SJV Air Pollution Control District (SJVAPCD or District) notified the public in local newspapers and on its Web site of the availability of the document entitled ''Natural Event Documentation, High Winds, Corcoran and Bakersfield, California, September 22, 2006,'' SJV Unified Air Pollution Control District, February 2007 and requested public comments by March 5, 2007.

The SJVAPCD subsequently revised the February 2007 document and submitted to the California Air Resources Board (CARB) ''Natural Event Documentation, Corcoran, Oildale and Bakersfield, California, September 22, 2006,'' SJV Unified Air Pollution Control District, April 20, 2007 (NED for September 22, 2006) and posted it on its Web site.

SJVAPCD thereafter provided additional information to CARB in ''Addendum, Natural Event Documentation, Corcoran, Oildale and Bakersfield, California, September 22, 2006,'' SJV Unified Air Pollution Control District, May 23, 2007 (NED Addendum for September 22, 2006) and posted it on its Web site.

The District indicated that no public comments were received during the public process.

c. The Documentation Was Submitted to EPA

The NED for September 22, 2006 and the NED Addendum for September 22, 2006 were subsequently submitted by the State to EPA on April 24, 2007 and July 10, 2007, respectively, and are the documents upon which EPA is basing its evaluation below.

d. EPA Concurs With the State's Demonstration

In this proposed rule, EPA is proposing to concur with the State's demonstration in the NED for September 22, 2006 and the NED Addendum for September 22, 2006 that high wind-entrained dust from the central and southern SJV caused the exceedances at the three monitoring locations on September 22, 2006.

2. Technical Criteria

a. Did this event satisfy the criteria in section 50.1(j) of the Rule?

The State needs to show that the September 22, 2006 event, wind-entrained dust from sources in the central and southern SJV, affected air quality in the Corcoran and Bakersfield areas,[9] was not reasonably controllable or preventable, was a natural event, and is determined by EPA through the process established in the Rule to be an exceptional event. We believe the State has supported its claims that wind-driven dust from sources of PM–10 in the central and southern SJV was the cause of the September 22, 2006 exceedances, as discussed in detail below.

[7] ''Natural Event Documentation, Corcoran, Oildale, and Bakersfield, California, September 22, 2006'', April 20, 2007 (NED for September 22, 2006) at 10.

[8] NED for September 22, 2006 at 11, Table 3, 14 and 37–44.

[9] The Bakersfield-Golden State Highway and Oildale monitors are approximately 3.5 miles apart. For the purposes of this discussion, the analysis for the Bakersfield-Golden State Highway and Oildale monitors is the same.

i. Affected Air Quality

For an event to qualify as an exceptional event, the state must show that the event affected air quality. This criterion can be met by establishing that the event is associated with a measured exceedance in excess of normal historical fluctuations, including background, and there is a causal connection between the event and the exceedance. The demonstration of a clear causal relationship is necessary to establish that the event affected air quality and is also a separate statutory requirement as discussed above.

In the NED for September 22, 2006 and the NED Addendum for September 22, 2006, the State provides documentation that the measured exceedances on September 22, 2006 were in excess of normal historical fluctuations. See subsection c. below. The State also establishes a causal connection between the high winds recorded at Lemoore and the high concentrations recorded at the Corcoran, Bakersfield, and Oildale monitors. The State's demonstration of the clear causal relationship between the event and the exceedances on this day is discussed in greater detail in subsection b. below.

ii. Not Reasonably Controllable or Preventable

Section 50.1(j) of the Exceptional Events Rule requires that for an event to qualify as an exceptional event, whether natural or anthropogenic, a state must show that the event was not reasonably preventable or controllable. Here this requirement is met by demonstrating that despite reasonable and appropriate measures in place, the September 22, 2006 wind event caused the exceedances. During this event there were no other unusual dust-producing activities occurring in the SJV and anthropogenic emissions were approximately constant before, during and after the event. In addition, the State shows that reasonable and appropriate measures were in place, including Regulation VIII (the District's general fugitive dust rules) and Rule 4550 which limits fugitive dust emissions specifically from agricultural operations through Conservation Management Practices.[10] Moreover, EPA has approved the District's best available control measure (BACM) demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[11]

iii. Was a Natural Event

In the preamble to the Exceptional Events Rule EPA states that ambient particulate matter concentrations due to dust being raised by unusually high winds will be treated as due to uncontrollable natural events where (1) the dust originated from nonanthropogenic sources, or (2) the dust originated from anthropogenic sources within the State, that are determined to have been reasonably well-controlled at the time that the event occurred, or from anthropogenic sources outside the State. 72 FR at 13576. In the preamble EPA also explains that ''[s]tates must provide appropriate documentation to substantiate why the level of wind speed associated with the event in question should be considered unusual for the affected area during the time of year that the event occurred.'' *Id.* at 13566.

On September 22, 2006, the wind-entrained dust originated from anthropogenic sources within California, *i.e.*, from usual dust-generating activities such as agricultural and industrial operations.[12] We discuss the fugitive dust control measures in place in the SJV on September 22 above.

With respect to the wind speed, EPA concurs with the State's demonstration that the wind speeds in the central SJV were unusually high on September 22, 2006.[13] Meteorological data show that the winds at Lemoore reached speeds of 29 mph with gusts of approximately 40 mph. According to the State, the Department of Water Resources' extreme annual wind statistics indicate that the mean annual peak gust for Lemoore is 42 mph.[14] Thus wind gusts observed at Lemoore were unusually high because they are close to the typical highest annual value of 42 mph. The State also provides documentation that shows that winds of approximately 18 mph will entrain and transport dust.[15] Winds greater than this speed occurred at Lemoore and Kettleman Hills, and were responsible for transporting this entrained dust. Meteorological data indicate that the wind direction was from the north and northwest and hence the entrained dust at that wind speed was transported towards Corcoran. Winds at Corcoran were not as intense during the peak hours at Lemoore. Table 3 of the State's submittal indicates the winds at Corcoran at 10 a.m. were 9 mph with gusts to 12 mph.[16] These wind speeds, though not sufficient to erode dust, were sufficient to keep the entrained and transported dust from the high winds at Lemoore suspended for the period during which the exceedances occurred.

iv. Determined by EPA To Be an Exceptional Event

Finally, EPA must determine through the process established in the Exceptional Events Rule whether an exceptional event occurred. We believe that the State has met the procedural requirements of the rule including flagging of the data, submission of demonstration, evidence of the public opportunity to review and comment on the demonstration and mitigation requirements as discussed in section V.A.1. and 3. of this proposed rule. We further believe that the State has also met the technical criteria in the Exceptional Events Rule as discussed in section V.A.2. Therefore, we are proposing to concur with the State's determination that an exceptional event, i.e., a high wind event, occurred resulting in the exceedances on September 22, 2006.[17]

b. Does the State's documentation show a clear causal connection between the exceedances and the claimed exceptional event?

Under 40 CFR 50.14(c)(3)(iii)(B), a state's demonstration must establish a clear causal relationship between the measured exceedance and the claimed exceptional event. In addressing this requirement for the September 22, 2006 exceedances, the State identifies a source region for the PM–10, an area northwest of Corcoran around the area of Lemoore. The State provides a convincing demonstration showing that the winds in the area of the central SJV were of sufficient speeds to erode soils and entrain dust and that the wind direction moved the PM–10 southeast towards Corcoran and further to the Bakersfield area.

Meteorological measurements in Lemoore show that this area had the highest hourly averaged winds in the SJV that day, peaking at 10 a.m. with a speed of 29 mph from the NNW and gusts at the same time reaching 37

[10] NED for September 22, 2006 at 32.

[11] 69 FR 30006, 30035 (May 26, 2004); 71 FR 7683 (February 14, 2006).

[12] NED for September 22, 2006 at 32–33.

[13] NED for September 22, 2006 at 29; NED Addendum for September 22, 2006 at section 4.

[14] NED for September 22, 2006 at 29.

[15] NED for September 22, 2006 at 13; David Bush, T&B Systems Contribution to CRPAQS Initial Data Analysis of Field Program Measurements, Final Report Contract 2002–06PM Technical & Business Systems, Inc., November 9, 2004 (Bush Report).

[16] NED Addendum for September 22, 2006 at 11, Table 3.

[17] Generally EPA concurs or nonconcurs by letter with requests to flag data as caused by exceptional events. See our explanation in section II. above regarding why we are proceeding by a rulemaking here.

mph.[18] Lemoore is approximately 25 miles northwest of Corcoran. Meteorological measurements were also obtained from a site at Kettleman Hills, which showed a peak hourly wind at 11 am of 20 mph from the NNW with gusts up to 32 mph.[19] Kettleman Hills is approximately 28 miles west of Corcoran. The wind speed, direction, time and distance from monitors indicate that the high winds at Lemoore entrained the dust carrying it toward Corcoran.[20] The State cites a 2002 California Regional PM–10/PM–2.5 Air Quality Study (2002 CRPAQS study) that established a dust-generating wind speed threshold of 17.8 mph to support its conclusion that these wind speeds were sufficient to erode soils and entrain dust into the atmosphere as well as to exacerbate the entrainment of dust from the anthropogenic activities.[21]

At about 9:30 a.m. and 10:30 a.m. the District received complaints about dust emissions in Lemoore.[22] This was at the time of peak winds in Lemoore. The District followed up on the complaints but did not issue notices of violation. The State indicates that there were PM–10 generating activities in the area of Lemoore on the morning of September 22, 2006 but that these activities were typical for the area and subject to the District's fugitive dust regulations.[23]

The State shows a clear relationship between the wind speeds at Lemoore and Kettleman Hills and increased concentrations at the Corcoran monitoring site. The documentation clearly shows that as hourly average wind speeds increased at the three meteorological sites, hourly concentrations at Corcoran also increased. The peak hourly concentrations at Corcoran were at 10 a.m. and 11 a.m. (725 μg/m^3 and 695 μg/m^3, respectively).[24] These concentrations coincide with the highest winds at Lemoore and Kettleman Hills.

The winds at Corcoran showed the same pattern of increasing wind speeds but at a lower intensity. Hourly average winds at Corcoran peaked at 8 a.m. at 11 mph with a peak average minute gust of 15 mph. While these wind speeds were not high enough to erode and entrain soil, based on the wind speed threshold referenced above, they were sufficient to keep the coarse particles suspended in the atmosphere. The winds were also consistently from the northwest, which demonstrates that the coarse particles which impacted Corcoran originated in the areas northwest of the monitor, e.g. Lemoore where the winds were unusually high.

Using the threshold wind speed in the 2002 CRPAQS study, the State shows that most of the PM–10 was generated upwind of the Corcoran site and then transported to the Corcoran area.[25] Based on available data, wind speeds at Corcoran were not high enough to generate dust on their own but were high enough to sustain the entrainment of PM–10 from upwind areas.

The wind-driven dust from sources in the central and southern SJV, beginning in Lemoore, also impacted the Bakersfield area on September 22, 2006. The State provides the analysis and supporting information needed to demonstrate that the winds between the Corcoran and Bakersfield areas were of sufficient intensity to transport the plume of PM–10 from Corcoran to the Bakersfield and Oildale monitors. The Bakersfield area monitors began to record hourly concentrations in excess of the level of the 24-hour PM–10 NAAQS two hours after the peak Corcoran hourly PM–10 concentration, with the Bakersfield hourly PM–10 concentrations peaking five hours after the Corcoran peak hourly PM–10 concentration. In order to transport a plume of dust from Corcoran to the Bakersfield area, approximately 55 miles, wind speeds would have to average approximately 11 mph in order for the maximum amount of PM–10 to impact the Bakersfield area monitors five hours later.[26] The winds at Alpaugh, which is located between Corcoran and Bakersfield, averaged 11 mph.[27] As would be expected, the concentration of PM–10 in the Bakersfield area was lower than in Corcoran, but still significant enough to exceed the NAAQS. The lower PM–10 concentrations at Bakersfield are likely due to the dispersion of the dust plume and possibly deposition of a portion of the dust particles along the path from the Corcoran area to Bakersfield.

The State's demonstration for September 22, 2006 includes information on wind speed and direction [28] that shows the correlation between the hourly wind speeds at meteorological sites in Alpaugh and Bakersfield-Meadows Airfield and the hourly PM–10 concentrations recorded in the Bakersfield area.[29]

The State also includes the results of a basic meteorological model known as Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT).[30] It is important to note that while this modeling is not meant to quantify the particle concentration recorded in the Bakersfield area, it does offer support of the State's demonstration that the winds on September 22, 2006 were of the appropriate intensity and direction to move a plume of dust from the central SJV to the Bakersfield area.

c. Did the State demonstrate that the event is associated with measured concentration in excess of normal historical fluctuations including background?

For EPA to concur with a state's claim that an exceptional event caused an exceedance, one of the requirements that the state must meet is to show that the event is associated with concentrations that are beyond the normal historical fluctuations. See 40 CFR 50.14(c)(3)(iii)(C).

The NED for September 22, 2006 and NED Addendum for September 22, 2006 include sections that show the unusualness of the concentrations recorded on that date. Section 4 of the Addendum includes Figure A–5 that compares the peak 24-hour PM–10 concentrations recorded at Corcoran, Bakersfield and Oildale during the month of September for the years 2000 through 2006.[31]

The FRM monitor at the Corcoran site has mostly operated on a once-in-every-three-days schedule since 2000.[32] The Corcoran FRM has collected 786 samples since 2000 and has recorded only four exceedances of the 24-hour PM–10 NAAQS.[33] A further analysis shows that, with the exception of a flagged natural event in 2004, 24-hour

[18] NED for September 22, 2006 at 11, Table 3.

[19] *Id.*

[20] *Id.*

[21] *Id.* at 13; Bush Report.

[22] NED for September 22, 2006 at 33, Table 15.

[23] *Id.* at 5 and 32–33.

[24] *Id.* at 11, Table 3.

[25] *Id.* at 13; Bush Report.

[26] NED Addendum for September 22, 2006 at 7.

[27] *Id.* at 8, Table A–1.

[28] NED Addendum for September 22, 2006 at 8, Table A–1.

[29] The Oildale monitoring site does not record hourly PM–10 concentrations but uses a manual PM–10 sampler that provides only 24-hour average concentrations. The Bakersfield-Golden State Highway monitoring site utilizes both a manual sampler for average 24-hour PM–10 concentrations and a continuous PM–10 analyzer to provide hourly concentrations. Since the Bakersfield-Golden State Highway site and the Oildale site are relatively close to each other (see footnote 9 above), we believe it is appropriate to use the Bakersfield-Golden State Highway continuous analyzer to characterize the temporal distribution of hourly concentrations at both sites.

[30] NED Addendum for September 22, 2006 at 10.

[31] NED Addendum for September 22, 2006 at 14.

[32] From September 1, 2000 to March 22, 2001 the Corcoran monitor operated on a once-in-every-six-days schedule.

[33] PM–10 Raw Data Report Corcoran 2000–2006, EPA AQS Database, July 30, 2007.

PM–10 concentrations exceeded a level of 100 μg/m³ only three times during the month of September for a seven year period, i.e, when we look at the 59 samples collected during the September for the past seven years, a concentration greater than 100 μg/m³ occurred only five percent of the time.[34] Exceedances of the NAAQS have occurred twice in September, which is less than four percent of the days sampled. Comparisons for the month of September are more relevant than for the entire year because September has the highest concentration of dust but does not typically have the highest PM–10 concentrations, which occur in the winter season. Dust is typically less than 50% of the PM–10 during September.[35] During the winter season nitrates are the largest contributor, particularly in the southern part of the central valley.

For Bakersfield, which utilizes a FRM operating on a once-in-every-six-days schedule, 413 samples were collected since the year 2000. During this time the NAAQS was exceeded three times. Again, when we look at data collected during the September months from 2000 to 2006, only one day out of 33 days sampled recorded a level greater than 100 μg/m³ (128 μg/m³ on September 18, 2003), three percent of the time.[36]

For Oildale, also operating a FRM on a once-every-six-days schedule, 432 samples were collected from 2000 to 2006. The PM–10 NAAQS was exceeded once during this seven-year period. During the September months, only one day out of 35 days sampled recorded a level greater than 100 μg/m³ (111 μg/m³ on September 14, 2006), less than three percent of the time.[37]

d. Did the State demonstrate that there would have been no exceedance ''but for'' the event?

As discussed above, to qualify as an exceptional event the state must also demonstrate that there would have been no exceedance ''but for'' the event. 40 CFR 50.14 (c)(3)(iii)(D). To meet this ''but for'' criterion, states must include analyses to demonstrate that an exceedance or violation would not have occurred but for the event. Such analyses do not require a precise estimate of the estimated air quality impact from the event. 72 FR at 13570.

To meet this ''but for'' criterion, the State first shows that there were no unusual activities occurring in the affected areas in the Valley on September 22, 2006 that could have resulted in the exceedances. Specifically, based on information from District field staff and discussions with representatives of agricultural and industrial operations in the Valley, anthropogenic emissions were approximately constant in the Valley immediately before, during and after the event. The State indicates that there were PM–10 generating activities, such as agricultural and construction operations, in the area of Lemoore on the morning of September 22, 2006. These types of activities are typical for the area.[38]

The State next indicates that the greatest fraction of PM–10 at the Corcoran and Bakersfield sites on September 22 consisted of particles in the size fraction between PM–10 and PM–2.5.[39] This information indicates that geologic dust, as opposed to secondary PM or PM from combustion sources, was the primary contributor to the exceedances. The fraction of coarse particles at Corcoran and Bakersfield on September 22 was 89% and 79% respectively.[40] These values must be compared to the typical geologic values for the Valley during September of approximately 30 μg/m³ which are less than 50% of the measured PM–10.[41] Based on the reported 89% value, the estimated geologic material for Corcoran was approximately 190 to 230 μg/m³ for September 22, 2006. The corresponding values for Bakersfield were 123–134 μg/m³. Compared to the typical September value of approximately 30 μg/m³, the September 22, 2006 values represent an excess geologic contribution of approximately 160 to 200 μg/m³ for Corcoran and approximately 94 to 104 for Bakersfield. If the typical value of 30 μg/m³ were used instead of the high estimated geologic values derived from the PM–10–2.5 size fraction, the resulting ''adjusted'' PM–10 values for Corcoran and Bakersfield would be 50–65 μg/m³. This result favorably compares to the typical average September concentration of less than 60 μg/m³. Allowing for a PM–10 geologic value of 60 μg/m³, which is twice the September norm, would only yield an ''adjusted'' concentration of 84 to 96 μg/m³. All of these sets of adjusted values for September 22 are consistent with the aforementioned historical September levels which rarely exceeded 100 μg/m³, showing that very few days in Bakersfield and Corcoran over the period 2000–2006 exceeded the level of 100 μg/m³.

In addition, the NED for September 22, 2006 includes Table 2 that lists the PM–10 24-hour average concentrations recorded using continuous analyzers for the days immediately preceding and after September 22, 2006.[42] This table indicates that 24-hour average PM–10 concentrations at Corcoran were over 100% higher on September 22 as compared to September 20, 21, 23, and 24. At Bakersfield, concentrations on September 22 were over 100% higher than on September 20 and September 24 and 86% higher than on September 21. Compared to September 23 the increase was 14%.

Finally, as discussed above, there were reasonable and appropriate measures in place to control PM–10 in the SJV on September 22, 2006, Regulation VIII and Rule 4550.[43] Moreover, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[44] Furthermore, District staff performed 46 inspections in the Valley on September 22 to ensure that regulated sources were complying with the District's fugitive dust rules.[45] The District's Natural Events Action Plan, discussed below, also addresses the reasonable and appropriate measures that the District has implemented to address high wind events in the SJV.

Based on the weight of evidence presented, EPA concludes that the State's documentation demonstrates that the exceedances at Corcoran, and Bakersfield and Oildale on September 22, 2006 would not have occurred but for the wind event on this day.

3. Mitigation Requirements

Under 40 CFR 51.930, a state requesting to exclude air quality data due to exceptional events must take appropriate and reasonable actions, including public notification, public education, and implementation of measures, to protect public health from exceedances or violations of the NAAQS.

The SJVAPCD adopted the ''Natural Events Action Plan for High Wind Events in the San Joaquin Valley Air

[34] 138 μg/m³ on September 9, 2004, a 102 μg/m³ on September 24, 2004 and a 112 μg/m³ on September 23, 2006; See *Id.*

[35] ''What are the Sources of Particulate Matter'', Presentation by Karen L. Magliano, California Air Resources Board, May 17, 2006 (Magliano Presentation).

[36] PM–10 Raw Data Report Bakersfield Golden 2000–2006, EPA AQS Database, July 30, 2007.

[37] PM–10 Raw Data Report Oildale 2000–2006, EPA AQS Database, July 26, 2007.

[38] NED for September 22, 2006 at 32–33.

[39] *Id.* at 32, Figure 13.

[40] *Id.*

[41] Magliano Presentation.

[42] NED for September 22, 2006 at 9.

[43] *Id.* at 32.

[44] 69 FR 30006, 30035 (May 26, 2004); 71 FR 7683 (February 14, 2006).

[45] NED for September 22, 2006 at 45–46.

Basin'' (NEAP) on February 16, 2006. The NEAP provides the SJVAPCD's approach to forecasting high wind events, notifying the public prior to the event and educating the public on how to minimize exposure during high wind events. The document also discusses measures that are in place to help minimize exposure to elevated PM–10 levels. EPA believes that the detailed processes and measures described in the NEAP satisfy the mitigation requirements under 40 CFR 51.930.

a. Provide for Prompt Public Notification of Exceedance Events

Section 6 of the NEAP provides the meteorological forecasting criteria that the SJVAPCD uses to determine whether or not to declare NEAP episodes. When the criteria indicate that a NEAP episode should be declared, the SJVAPCD has a public notification program, discussed in Section 7 of the NEAP, which involves informing the local media, SJVAPCD staff and community groups.

b. Provide for Public Education on How To Minimize Exposure

Section 7 of the NEAP provides a list of precautions that can be taken to limit exposure during a NEAP episode. The list includes keeping windows shut, using air conditioners or heaters on the recycle/recirculating air mode, limiting strenuous activity, and other precautions. Section 8 of the NEAP discusses the SJVAPCD's general public outreach program on NEAP episodes which includes developing and providing a brochure and information about NEAP episodes by means of community events, health fairs, schools and civic engagements.

c. Provide for the Implementation of Appropriate Measures To Protect the Public

Section 10 of the NEAP discusses the SJVAPCD's measures that reduce PM–10 emissions. These measures, including those approved by EPA as BACM for the SJV, in combination with the SJVAPCD's process for declaring NEAP episodes and educating the public on how to minimize their exposure during a NEAP episode, meet the requirements for appropriate measures to protect the public during high wind exceptional events.

Conclusion

EPA believes that the high winds in the area of Lemoore on September 22, 2006 were an exceptional event as defined in 40 CFR 50.1(j). EPA also believes that the State has provided a sufficient weight of evidence demonstration to show that these high winds generated and transported PM–10 from the area of Lemoore to Corcoran, causing an exceedance of the 24-hour PM–10 NAAQS. Winds between Corcoran and the Bakersfield area were sufficient to transport the dust that originated in the Lemoore area such that they caused the monitors at Bakersfield-Golden State Highway and Oildale to also exceed the NAAQS. The documentation submitted by the State demonstrates that but for the high winds in the area of Lemoore, the Corcoran, Bakersfield and Oildale monitors would not have exceeded the 24-hour PM–10 NAAQS on September 22, 2006. Because EPA believes that the State has satisfied the provisions of the Exceptional Events Rule, EPA proposes to concur with the State's request to flag these exceedances as being due to exceptional events and to exclude the data from consideration in determining whether the area has attained the PM–10 standard.

B. October 25, 2006 Exceedances at Corcoran and Bakersfield

On October 25, 2006, the SJV recorded exceedances of the 24-hour PM–10 NAAQS at two sites, Corcoran and Bakersfield-Golden State Highway, using continuous PM–10 analyzers designated as FEM monitors.[46] The 24-hour average concentrations recorded were 304 μg/m^3 at Corcoran and 193 μg/m^3 at Bakersfield-Golden State Highway. The conditions that contributed to these exceedances were very similar to those that occurred on September 22, 2006. Based on the evidence submitted, EPA agrees with the State's demonstration that high wind-entrained dust from the central and southern SJV caused the exceedances at the two monitoring locations on October 25, 2006.

1. Procedural Requirements

a. Data Are Flagged in EPA's AQS Database

The October 25, 2006 exceedances were flagged in EPA's AQS database as of July 2007.

[46] The District operates Tapered Element Oscillating Microbalance (TEOM) continuous automated analyzers at these two sites in addition to the manual high-volume Federal Reference Method (FRM) monitors. The FRMs operate at a less than everyday schedule, as allowed by EPA regulations, but neither of the FRM monitors was operating on October 25, 2006. The District operates the continuous analyzers so that they may report daily PM–10 air quality data to the public.

b. Public Had an Opportunity To Review and Comment on the State's Documentation

In February 2007, the SJVAPCD notified the public in local newspapers and on its Web site of the availability of the document entitled ''Natural Event Documentation, High Winds, Corcoran and Bakersfield, California, October 25, 2006,'' SJV Unified Air Pollution Control District, February 2007 and requested public comments by March 5, 2007.

The SJVAPCD subsequently revised the February 2007 document and submitted to CARB the ''Natural Event Documentation, Corcoran and Bakersfield, California, October 25, 2006,'' San Joaquin Valley Unified Air Pollution Control District, April 23, 2007 (NED for October 25, 2006), and posted it on its Web site.

The SJVAPCD indicated that no public comments were received during its public process.

c. The Documentation Was Submitted to Epa

The NED for October 25, 2006 was submitted by the State to EPA on May 1, 2007 and is the document upon which EPA is basing its evaluation below.

d. EPA Concurs With the State's Demonstration

In this proposed rule, EPA is proposing to concur with the State's demonstration in the NED for October 25, 2006 that high wind-entrained dust caused the exceedances at the two monitoring sites.

2. Technical Criteria

a. Did this event satisfy the criteria in section 50.1(j) of the Rule?

i. Affected Air Quality

For an event to qualify as an exceptional event, the state must show that the event affected air quality. This criterion can be met by establishing that the event is associated with a measured exceedance in excess of normal historical fluctuations, including background, and there is a causal connection between the event and the exceedance. The demonstration of a clear causal relationship is necessary to establish that the event affected air quality and is also a separate statutory requirement as discussed above.

In the NED for October 25, 2006, the State provides documentation that the measured exceedances recorded on October 25, 2006 were in excess of normal historical fluctuations. See subsection c. below. The State also establishes a causal connection between

the high winds recorded at Lemoore and the high concentrations at the monitors recorded at Corcoran and Bakersfield. The State's demonstration of the clear causal relationship between the exceptional event and the exceedances on this day is discussed in greater detail in subsection b. below.

ii. Not Reasonably Controllable or Preventable

Section 50.1(j) requires that for an event to qualify as an exceptional event, whether natural or anthropogenic, a state must show that the event was not reasonably preventable or controllable. Here this requirement is met by demonstrating that despite reasonable and appropriate measures in place, the October 25, 2006 wind event caused the exceedances. During this event, there were no other unusual dust-producing activities occurring in the SJV and anthropogenic emissions were approximately constant before, during and after the event. In addition, the State showed that reasonable and appropriate measures were in place, including Regulation VIII (the District's general fugitive dust rules) and Rule 4550 which limits fugitive dust emissions specifically from agricultural operations through Conservation Management Practices.[47] Moreover, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[48]

iii. Was a Natural Event

In the preamble to the Exceptional Events Rule, EPA states that ambient particulate matter concentrations due to dust being raised by unusually high winds will be treated as due to uncontrollable natural events where (1) the dust originated from nonanthropogenic sources, or (2) the dust originated from anthropogenic sources within the State, that are determined to have been reasonably well-controlled at the time that the event occurred, or from anthropogenic sources outside the State. 72 FR at 13576. In the preamble EPA also explains that ''[s]tates must provide appropriate documentation to substantiate why the level of wind speed associated with the event in question should be considered unusual for the affected area during the time of year that the event occurred.'' *Id.* at 13566.

The wind-entrained dust on October 25, 2006 originated from anthropogenic sources within California, i.e., from usual dust-generating activities such as agricultural and industrial operations.[49] We discuss the fugitive dust control measures in place in the SJV on October 25 above.

With respect to the wind speed, EPA concurs with the State's demonstration that the wind speeds in the central SJV were unusually high on October 25, 2006.[50] Table 1 of the NED for October 25, 2006 lists the wind speeds in the Hanford and Lemoore areas. The peak hourly averaged winds were in the range of 29 to 31 mph at Lemoore, with gusts reaching 40 mph. Peak hourly winds at Hanford were lower, in the range of 17 to 18 mph, but still in line with the threshold wind speed of 17.8 mph. Hanford also recorded peak gusts of 22 to 30 mph during the 10 a.m. to 12 noon period.[51] Tables 8, 9, and 11 of the NED for October 25, 2006 also include information on wind speeds throughout the central valley of California and the central and southern SJV.[52] The documentation also states that wind speeds of these intensities are relatively rare in the southwestern part of the SJV and occur less than 5% of the time, based on long-term monitoring records.[53]

EPA concurs with the State's demonstration in the NED for October 25, 2006 that the wind speeds occurring in the central SJV were unusually high on October 25, 2006. While the winds at Corcoran were not as high as those in Lemoore and Hanford, as described in the State's documentation, the winds at Corcoran during the peak hourly PM–10 concentrations (8 a.m. to 11 a.m.) ranged from 10 to 13 mph, which are unusual for this time of year in that area. These wind speeds, though not sufficient to erode dust, were sufficient to keep the entrained and transported dust from the high winds at Lemoore suspended for the period during which the exceedances occurred.

iv. Determined by EPA To Be an Exceptional Event

Finally, EPA must determine through the process established in the Exceptional Events Rule whether an exceptional event occurred. We believe that the State has met the procedural requirements of the Rule including flagging of the data, submission of demonstration, evidence of the public opportunity to review and comment on the demonstration and mitigation requirements as discussed at section V.B.1. and 3. of this proposed rule. We further believe that the State has also met the technical criteria of the Rule as discussed at section V.B.2. of this proposed rule. Therefore we are proposing to concur with the State's determination that an exceptional event, i.e., a high wind event, occurred resulting in the exceedances on October 25, 2006.

b. Does the State's documentation show a clear causal connection between the exceedances and the claimed exceptional event?

Under 40 CFR 50.14(c)(3)(iii)(B), a state's demonstration must establish a clear causal relationship between the measured exceedances and the claimed exceptional event. In addressing this requirement for the October 25, 2006 exceedances, the NED for October 25, 2006 submitted by the State identifies the area northwest of Corcoran as the source of PM–10 during the October 25, 2006 event. Winds in the Lemoore area were again in excess of the threshold wind speed for eroding and entraining dust as discussed above. Table 1 of the NED for October 25, 2006 shows a clear correlation between the wind speeds in the Hanford and Lemoore areas and the increased hourly concentrations at Corcoran.[54] In fact the peak wind speeds at Lemoore and Hanford, which occurred between 10 a.m. and 12 noon at Lemoore, coincide with the peak hourly concentrations at Corcoran. The peak hourly averaged winds were in the range of 29 to 31 mph at Lemoore, with gusts reaching 40 mph. Peak hourly winds at Hanford were lower, in the range of 17 to 18 mph, but still in line with the threshold wind speed of 17.8 mph. Hanford also recorded peak gusts during the 10 a.m. to 12 noon period of 22 to 30 mph. Figure 2 of NED for October 25, 2006 compares the hourly wind speed and PM–10 concentration data from Corcoran with the hourly wind speed data from Lemoore in a graphical format.[55] This graphic shows the almost perfect correlation between increased wind speeds at Corcoran and Lemoore with the increased PM–10 hourly concentrations at Corcoran.

The dust plume that affected the Corcoran monitoring site on October 25, 2006 continued moving south and ultimately impacted the continuous PM–10 analyzer operating at the Bakersfield-Golden State Highway monitoring site. The State provides information on wind speed and direction from the Alpaugh meteorological monitoring station,

[47] NED for October 25, 2006 at 29.

[48] 69 FR at 30035; 71 FR 7683.

[49] NED for October 25, 2006 at 29.

[50] *Id.* at sections 4 and 5.

[51] *Id.* at 11.

[52] *Id.* at 22–23.

[53] *Id.* at 24.

[54] NED for October 25, 2006 at 11.

[55] *Id.* at 12.

located between Corcoran and Bakersfield about 16 miles south southeast of the Corcoran monitoring site.[56] Between the hours of 9 a.m. and 4 p.m., wind speeds at Alpaugh averaged about 12 mph.[57] Since the meteorological data measured at Alpaugh is taken at 2 meters Above Ground Level (AGL), the average wind speed at 10 meters AGL is about 15 mph.[58] EPA believes this average wind speed would have been sufficient to keep the dust plume suspended, and that it facilitated the transport of the dust plume to the Bakersfield area.

The data in Table 1 of the NED for October 25, 2006 show the Bakersfield hourly PM–10 concentrations beginning to exceed the level of the 24-hour PM–10 NAAQS at 11 a.m. (177 μg/m^3) and peaking between the hours of 2 p.m. and 5 p.m. (415 μg/m^3 and 416 μg/m^3, respectively). Figure 4 provides a graph of PM–10 hourly concentrations for three continuous PM–10 analyzers operated by the District at Corcoran, Bakersfield-Golden State Highway, and Tracy.[59] The graph shows hourly PM–10 concentrations at Bakersfield-Golden State Highway slowly increasing through the morning hours of October 25 until 8 a.m. Hourly concentrations increase at a higher rate between 8 a.m. and 1 p.m., mirroring the increase at Corcoran, but not as dramatic. As the Corcoran hourly concentrations are dropping between 11 a.m. 4 p.m. we see a corresponding sharp increase in hourly concentrations at Bakersfield-Golden State Highway. This behavior of the hourly concentrations supports the State's explanation that the dust plume that first affected Corcoran traveled south over a period of several hours and then impacted the Bakersfield monitor.

As with the September 22, 2006 event, the State includes for the October 25, 2006 event the results of a basic meteorological model known as the Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT).[60] It is important to note that while this modeling is not meant to quantify the particle concentration recorded in the Bakersfield area, it does support the State's demonstration that the winds on October 25, 2006 were of the appropriate intensity and direction to move a plume of dust from the central SJV to the Bakersfield area.

c. Did the State demonstrate that the event is associated with measured concentrations in excess of normal historical fluctuations including background?

For EPA to concur with a state's claim that an exceptional event caused an exceedance, one of the requirements that the state must meet is to show that the event is associated with concentrations that are beyond the normal historical fluctuations. See 40 CFR 50.14(c)(3)(iii)(C).

The State provides data on PM–10 levels on the days before and after October 25, 2006. PM–10 concentrations before and after October 25, 2006 were significantly lower than the concentration recorded on October 25, 2006. An EPA review of continuous PM–10 data from Corcoran and Bakersfield-Golden State Highway showed that 24-hour average concentrations from October 1, when the TEOM continuous analyzers began reporting data, through October 24 did not exceed 100, and while there were a number of higher concentrations on the days after October 25, not counting the exceedances recorded on December 8, 2006, which are discussed further below in subsection d, the PM–10 concentrations at Corcoran and Bakersfield-Golden State Highway fell to mostly less than 100 again from October 28 through June 30, 2007.[61]

Historically we can compare data from these continuous analyzers only with the separate manual FRM samplers operated at the sites. When we look at typical PM–10 concentrations recorded in the month of October from 2000 to 2006 the maximum value recorded at Bakersfield was 116 μg/m^3 measured on October 16, 2001 and the maximum non-exceedance value recorded at Corcoran was 150 μg/m^3 measured on October 31, 2006.[62] These concentrations indicate that the exceedances recorded on October 25, 2006 were unusual and not representative of typical high concentrations recorded at these monitoring locations.

d. Did the State demonstrate that there would have been no exceedance ''but for'' the event?

As discussed previously, to qualify as an exceptional event the State must also demonstrate that there would have been no exceedance ''but for'' the event. 40 CFR 50.14(c)(3)(iii)(D). To meet this ''but for'' requirement, the state must include analyses to demonstrate that an exceedance or violation would not have occurred but for the event. Such analyses do not require a precise estimate of the estimated air quality impact from the event. 72 FR at 13570.

To meet this ''but for'' requirement the State first shows that there were no unusual activities occurring in the affected areas in the Valley that could have resulted in the exceedances. Specifically, based on information from District field staff and discussions with representatives of agricultural and industrial operations in the Valley, anthropogenic emissions were approximately constant in the Valley immediately before, during and after the event. The District staff observed no unusual emissions other than those associated with the wind event. The PM–10 generating activities were BACM-controlled sources that are usual for the area.[63] District staff conducted 90 inspections throughout the SJV on October 25 to ensure sources were in compliance with District air pollution rules.[64]

The State notes in the NED for October 25, 2006 that the PM–2.5 to PM–10 ratio on this day was very low, which indicates that mostly coarse PM was present on the filter, supporting its claim that the concentrations recorded on this day were affected by a blowing dust event.[65]

When we examine the typical make-up of PM–10 in the SJV during October we generally see particle concentrations that are mostly in the size fraction of PM–2.5, roughly 60–65%, with the remaining mass being particles in the PM–10–2.5 size fraction.[66] Typically, fugitive dust is the major constituent of the PM–10–2.5 size fraction and makes up about 25 to 35% of the total PM–10. When we look at a comparison of PM–2.5 and PM–10 concentrations recorded on October 25, 2006, we find that the PM–10–2.5 portion of the total PM–10 represents about 93% of the total PM–10 at Corcoran and 85 percent of total PM–10 at Bakersfield. This high percentage of PM–10–2.5, which is mostly fugitive dust, is atypical for this time of year and supports the State's demonstration that the PM–10 concentrations on this day consisted of mostly coarse geologic material.

We can also look at the days immediately preceding and following

[56] *Id.* at 22–26.

[57] *Id.* at 58.

[58] *Id.* at 24–26.

[59] *Id.* at 14.

[60] *Id.* at 27.

[61] ''Continuous PM–10 Data Collected with TEOMs, Data Reported to EPA's AIRNOW Website,'' July 30, 2007, Excel Spreadsheet, Bob Pallarino.

[62] Corcoran exceeded the 24-hour NAAQS on October 29, 2002 with a value of 168 μg/m^3; PM–10 Raw Data Reports, Corcoran 2000–2006 and Bakersfield-Golden 2000–2006.

[63] NED for October 25, 2006 at 7 and 29.

[64] *Id.* at 35.

[65] *Id.* at 28.

[66] Magliano Presentation.

the exceedance day to see if the concentrations on October 25 were unusual. The PM–10 concentrations recorded on October 25 at Corcoran and Bakersfield were over three times higher than they were on October 24.[67] PM–10 concentrations after the event decreased dramatically and by October 28, PM–10 concentrations at both sites were below 100. See also the discussion of the historical levels at these monitors set forth in subsection c. above, which further demonstrates that the concentrations recorded on October 25 were unusual.

Finally, as discussed above, there were reasonable and appropriate measures in place to control PM–10 in the SJV on October 25, 2006, Regulation VIII and Rule 4550.[68] Moreover, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[69] Section 9.2 of the NED for October 25, 2006 indicates that the District staff performed 90 inspections on that date to ensure that regulated sources were complying with District fugitive dust rules.[70] The District's Natural Events Action Plan, discussed in section V.A.3. above, also addresses the reasonable and appropriate measures that the District has implemented to address high wind events in the SJV.

Based on the weight of evidence presented, EPA concludes that the State's documentation demonstrates that the exceedances at Corcoran and Bakersfield on October 24, 2006 would not have occurred but for the wind event on this day.

3. Mitigation Requirements

See section V.A.3. above.

Conclusion

EPA believes that the high winds in the area of Lemoore on October 25, 2006, were an exceptional event as defined in 40 CFR 50.1(j). EPA also believes that the State has provided a sufficient weight of evidence demonstration to show that these high winds generated and transported PM–10 from the area of Lemoore to Corcoran, causing an exceedance of the 24-hour PM–10 NAAQS. Winds between Corcoran and the Bakersfield area were sufficient to transport the dust that originated in the Lemoore area such that they caused the monitor at Bakersfield-Golden State Highway to also exceed the NAAQS. The documentation submitted by the State demonstrates that but for the high winds in the area of Lemoore, the Corcoran and Bakersfield monitors would not have exceeded the 24-hour PM–10 NAAQS on October 25, 2006. Because EPA believes the State has satisfied the provisions of the Exceptional Events Rule, EPA proposes to concur with the State's request to flag these exceedances as being due to exceptional events and to exclude the data from consideration in determining whether the area has attained the PM–10 standard.

C. December 8, 2006 Exceedances at Corcoran and Bakersfield

The SJV recorded exceedances of the 24-hour PM–10 NAAQS on December 8, 2006 at two sites, Corcoran and Bakersfield-Golden State Highway, using continuous PM–10 analyzers designated as FEM monitors. The 24-hour average PM–10 concentrations recorded were 162 $\mu g/m^3$ at Corcoran and 213 $\mu g/m^3$ at Bakersfield-Golden State Highway.

The State demonstrates that unusually high winds in the Bakersfield area eroded and entrained dust that impacted the continuous PM–10 analyzer at Bakersfield. Unlike September 22 and October 25, 2006, the winds in the SJV on this day were generally from the southwest, south and southeast, transporting dust northward and ultimately impacting the continuous PM–10 analyzer at Corcoran. Based on the evidence submitted, EPA agrees with the State's demonstration that high wind-entrained dust caused the exceedances at the two monitoring locations on December 8, 2006.

1. Procedural Requirements

a. Data Are Flagged in EPA's AQS Database

The December 8, 2006 exceedances were flagged in EPA's AQS database as of July 2007.

b. Public had an opportunity to review and comment on the State's documentation

In February 2007, the SJVAPCD notified the public in local newspapers and on its Web site of the availability of the document entitled ''Natural Event Documentation, High Winds, Corcoran and Bakersfield, California, December 8, 2006,'' SJV Unified Air Pollution Control District, February 2007 and requested public comments by March 5, 2007.

The SJVACPD subsequently revised the February 2007 document and submitted to the California Air Resources Board (CARB) the ''Natural Event Documentation, Corcoran and Bakersfield, California, December 8, 2006,'' SJV Unified Air Pollution Control District, May 23, 2007 and posted it on its Web site.

SJVAPCD thereafter made revisions per CARB's request and submitted to CARB the ''Natural Event Documentation, Corcoran and Bakersfield, California, December 8, 2006,'' SJV Unified Air Pollution Control District, June 6, 2007 (NED for December 8, 2006) and posted it on its Web site.

The District indicated that no public comments were received during the public process.

c. The Documentation Was Submitted to EPA

The NED for December 8, 2006 was subsequently submitted by the State to EPA on June 12, 2007 and is the document upon which EPA is basing its evaluation below.

d. EPA Concurs With the State's Demonstration

In this proposed rule, EPA is proposing to concur with the State's demonstration in the NED for December 8, 2006 that high wind-entrained dust caused the exceedances at the two monitoring locations on December 8, 2006.

2. Technical Criteria

a. Did this event satisfy the criteria in section 50.1(j) of the Rule?

As with the previous events discussed in this proposed rule, the State needs to show that this event, identified in the NED for December 8, 2006 as unusually high winds, affected air quality in the Corcoran and Bakersfield areas, was not reasonably controllable or preventable, was a natural event, and is determined by EPA to be an exceptional event.

i. Affected Air Quality

For an event to qualify as an exceptional event, the state must show that the event affected air quality. This criterion can be met by establishing that the event is associated with a measured exceedance in excess of normal historical fluctuations, including background and there is a causal connection between the event and the exceedance. This demonstration of a causal connection is necessary to establish that the event affected air quality and is also a separate statutory requirement as discussed above.

In the NED for December 8, 2006, the State provides documentation that these measured exceedances were in excess of normal historical fluctuations. See subsection c. below. The State also establishes a causal connection between

[67] NED for October 25, 2006 at 16, Table 3.

[68] *Id.* at 29.

[69] 69 FR at 30035; 71 FR 7683.

[70] NED for October 25, 2006 at 35.

the high winds recorded in the Bakersfield and Southern SJV area and the high concentrations recorded at the Corcoran and Bakersfield monitors. The State's demonstration of the clear causal relationship between the event and the exceedances on this day is discussed in greater detail in subsection b. below.

ii. Not Reasonably Controllable or Preventable

Section 50.1(j) of the Exceptional Events Rule requires that for an event to qualify as an exceptional event, whether natural or anthropogenic, a state must show that the event was not reasonably preventable or controllable. Here this requirement is met by demonstrating that despite reasonable and appropriate measures in place, the December 8, 2006 wind event caused the exceedances. During this event, there were no other unusual dust-producing activities occurring in the SJV and anthropogenic emissions were approximately constant before, during and after the event. In addition, the State shows that reasonable and appropriate measures were in place, including Regulation VIII (the District's general fugitive dust rules) and Rule 4550 which limits fugitive dust emissions specifically from agricultural operations through Conservation Management Practices.[71] Moreover, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[72]

iii. Was a Natural Event

In the preamble to the Exceptional Events Rule, EPA states that ambient particulate matter concentrations due to dust being raised by unusually high winds will be treated as due to uncontrollable natural events where (1) the dust originated from nonanthropogenic sources, or (2) the dust originated from anthropogenic sources within the State, that are determined to have been reasonably well-controlled at the time that the event occurred, or from anthropogenic sources outside the State. 72 FR at 13576. In the preamble EPA also explains that ''[s]tates must provide appropriate documentation to substantiate why the level of wind speed associated with the event in question should be considered unusual for the affected area during the time of year that the event occurred.'' *Id.* at 13566.

On December 8, 2006, the wind-entrained dust originated from anthropogenic sources within California, i.e., from usual dust-generating activities such as agricultural and industrial operations.[73] We discuss the fugitive dust control measures in place in the SJV on December 8, 2006 above.

With respect to the wind speed, EPA concurs with the State's demonstration that the wind speeds in the southern SJV were unusually high on December 8, 2006. The State includes information on the unusual nature of the wind speeds in the SJV on December 8, 2006, stating that winds of these magnitudes are rare, occurring less than 5% of the time. The NED for December 8, 2006 reports that during the blowing dust event, Bakersfield reported winds up to 25 mph with gusts up to 35 mph. Farther north in the area of Kettleman Hills, located on the west side of the San Joaquin Valley, gusts up to 50 mph were reported. Kettleman Hills also reported a twenty-two hour period with gusts of 20 mph or greater (from 6 a.m. on December 8, 2006 to 4 a.m. on December 9, 2006). Maricopa, located on the southwest side of the San Joaquin Valley approximately 25 miles southwest of Bakersfield, reported a one-minute average wind speed of 56 mph.[74]

iv. Determined by EPA To Be an Exceptional Eevent

Finally, EPA must determine through the process established in the Exceptional Events Rule whether an exceptional event occurred. We believe that the State has met the procedural requirements of the Rule including flagging of the data, submission of demonstration, evidence of the public opportunity to review and comment on the demonstration and mitigation requirements as discussed at section V.C.1. and 3. of this proposed rule. We further believe that the State has also met the technical requirements of the Rule as discussed at section V.C.2. Therefore, we are proposing to concur with the State's determination that an exceptional event, i.e., a wind event, occurred resulting in the exceedances on December 8, 2006.

b. Does the State's documentation show a clear causal connection between the exceedances and the claimed exceptional event?

Under 40 CFR 50.14(c)(3)(iii)(B), a state's demonstration must establish a clear causal relationship between the measured exceedances and the claimed exceptional event. Unlike September 22 and October 25, 2006, the winds on December 8, 2006 were erratic and generally from the east, south, and southwest.[75] Wind speeds at meteorological stations near Bakersfield recorded hourly average wind speeds in excess of 35 mph and wind gusts in excess of 50 mph. Winds at Bakersfield on December 8 were from both the southwest and southeast during the time when peak hourly PM–10 concentrations were recorded. The winds continued to blow from the southeast up the Valley, pushing the dust plume towards the Corcoran monitoring site. The peak hours for hourly PM–10 concentrations were from 1 p.m. to 3 p.m. at both the Corcoran and Bakersfield sites, with a second set of high hourly concentrations at Bakersfield occurring from 5 p.m. to 8 p.m. Winds measured at Alpaugh, located between Bakersfield and Corcoran, were highest from 12 p.m. to 4 p.m. and from the southeast, supporting the State's argument that the dust plume moved from the southeast to northwest.[76]

Table 3 and Figure 2 of the NED for December 8, 2006[77] show the correlation of wind speeds and increasing hourly concentrations of PM–10 recorded by the continuous PM–10 analyzers at Corcoran and Bakersfield.

Figure 7 of the NED for December 8, 2006 includes the results of a basic meteorological model known as Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT).[78] It is important to note that while this modeling is not meant to quantify the particle concentration recorded in the Bakersfield and Corcoran areas, it does offer support of the State's demonstration that the winds on December 8, 2006 were of the appropriate intensity and direction to move a plume of dust from the southeastern SJV to the Bakersfield area and northward to Corcoran.

c. Did the State demonstrate that the event is associated with measured concentration in excess of normal historical fluctuations including background?

For EPA to concur with a state's claim that an exceptional event caused an exceedance, one of the requirements that the state must meet is to show that the event is associated with concentrations that are beyond the normal historical fluctuations. See 40 CFR 50.14(c)(3)(iii)(C).

[71] NED for December 8, 2006 at 25.

[72] 69 FR at 30035; 71 FR 7683.

[73] NED for December 8, 2006 at 25.

[74] *Id.* at 17.

[75] *Id.* at 11, Table 3.

[76] *Id.* at 56.

[77] *Id.* at 11–12.

[78] *Id.* at 23.

As with the discussion above on the September 22 and October 25, 2006 exceedances, we can compare data from the continuous analyzers only with the separate manual FRM samplers operated at the sites, since the continuous analyzers have only been in operation since late 2006. Figures 8 and 9 of the NED for December 8, 2006 demonstrate the relative infrequency, over the last 10 years, of the concentrations recorded at Corcoran and Bakersfield on December 8, 2006. When we look at PM–10 FRM concentrations recorded at Corcoran in the month of December from 1997 to 2006, the last non-flagged exceedance of the standard was a 174 recorded on December 17, 1999.[79] Levels exceeding 100 only occurred 10 times in December in the past 10 years, out of 96 FRM days sampled. Even when we include the continuous daily data collected at Corcoran in 2006, there are only the 10 values over 100 described above.

For Bakersfield, the last non-flagged day exceeding the standard in December was 159 recorded on December 30, 1998. Of the 42 December FRM sample days since 1997, 9 days exceed 100. Again, even when we include the continuous daily data from 2006, the result remains 9 days exceeding 100 in the last 10 years.[80]

d. Did the State demonstrate that there would have been no exceedance ''but for'' the event?

As discussed above, to qualify as an exceptional event the state must also demonstrate that there would have been no exceedance ''but for'' the event. 40 CFR 50.14(c)(3)(iii)(D). To meet this ''but for'' requirement, the state must include analyses to demonstrate that an exceedance or violation would not have occurred but for the event. Such analyses do not require a precise estimate of the estimated air quality impact from the even. 72 FR at 13570.

To meet this ''but for'' requirement the State first shows that there were no unusual activities occurring in the affected areas in the Valley that could have resulted in the exceedances. Specifically, based on information from District field staff and discussions with representatives of agricultural and industrial operations in the Valley, activities that generate anthropogenic PM–10 were approximately constant in the Valley immediately before, during and after the event. As on September 22 and October 25, 2006, activity levels in the SJV were typical for the time of year and PM–10 emission control programs were being implemented, not only for fugitive dust-generating activities, but also agricultural burning and residential wood combustion in parts of the SJV.[81]

The State provides frequency distributions of the maximum PM–10 24-hour December concentrations for the past 10 years. These figures indicate that PM–10 concentrations at Corcoran and Bakersfield-Golden State Highway rarely exceeded the level of the 24-hour PM–10 NAAQS.[82] This fact is an indication that December 8, 2006 was unusual in that the normal emission activity levels do not cause exceedances, based on historical data.

Examining the make-up of PM–10 on this day using PM–2.5 data collected at the sites with a continuous PM–2.5 analyzer, we can see that coarse particles, or PM–10–2.5, which are associated with windblown dust, represented 78% of the total PM–10 mass collected at Corcoran and 88% of the total PM–10 mass at Bakersfield. CARB studies indicate that at this time of year, fugitive dust generally contributes less than 20% of the total PM–10 mass.[83] The atypical contribution of fugitive dust to the exceedances recorded on December 8, 2006 indicates that but for the wind event these exceedances would not have occurred.

As discussed above, the State also looked at data from the days immediately preceding and after December 8, 2006.[84] Twenty-four hour PM–10 concentrations on December 4–6 were less than 100 μg/m^3 at both sites and were just over 100 μg/m^3 on December 7. On December 8, the concentration at Corcoran increased by more than 50%, exceeding the NAAQS with a level of 162 μg/m^3, but then fell to 32 μg/m^3 on December 9 and continued dropping for weeks after this event. At Bakersfield, on December 8 there was a greater than 100% increase over the December 7 concentration. Again, concentrations dropped dramatically on December 9 and remained low for weeks after.

Finally, as discussed above, there were reasonable and appropriate measures in place to control PM–10 in the SJV on December 8, 2006, Regulation VIII and Rule 4550.[85] Moreover, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the SJV as meeting CAA section 189(b)(1)(B).[86] The District's Natural Events Action Plan, discussed in section V.A.3. above, also addresses the reasonable and appropriate measures that the District has implemented to address high wind events in the SJV.

Based on the weight of evidence presented, EPA concludes that the State's documentation demonstrates that the exceedances at Corcoran and Bakersfield on December 8, 2006 would not have occurred but for the wind event on this day.

3. Mitigation Requirements

See section V.A.3.c above.

Conclusion

EPA believes that the high winds in the southeastern SJV on December 8, 2006 were an exceptional event as defined in 40 CFR 50.1(j). EPA also believes that the State has provided a sufficient weight of evidence demonstration to show that these high winds generated and transported PM–10 from the area of Bakersfield to Corcoran causing exceedances of the 24-hour PM–10 NAAQS at the Bakersfield and Corcoran monitors. The NED for December 8, 2006 submitted by the State demonstrates that but for the high winds in the southern SJV, the Corcoran and Bakersfield monitors would not have exceeded the 24-hour PM–10 NAAQS on December 8, 2006. Because EPA believes that the State has satisfied the provisions of the Exceptional Events Rule, EPA proposes to concur with the State's request to flag these exceedances as due to exceptional events and to exclude the data from consideration in determining whether the area has attained the PM–10 standard.

VI. EPA Evaluation of September 14, September 20 and October 26, 2006 Exceedances at the Santa Rosa Rancheria

The 24-hour PM–10 NAAQS was exceeded on September 14, 20 and October 26, 2006 at a monitor on the Santa Rosa Rancheria (SRR), tribal land located in Kings County within the SJV. The 24-hour average PM–10 concentrations were 190 μg/m^3, 158 μg/m^3, and 157 μg/m^3, respectively. The SRR Tribe flagged the exceedances as caused by an exceptional event, i.e., construction activities.

The Santa Rosa Rancheria EPA Department (SRREPA) operates a monitoring site on the SRR, located on the roof of a pumping station at the SRR's water treatment facility. The PM–10 sampler is a high volume size

[79] PM–10 Raw Data Report Corcoran 1997–2006, EPA AQS Database, July 30, 2007.

[80] PM–10 Raw Data Report Bakersfield Golden 1997–2006, EPA AQS Database, July 30, 2007.

[81] NED for December 8, 2006 at 25.

[82] *Id.* at 28–29, Figures 8 and 9.

[83] Magliano Presentation.

[84] NED for December 8, 2006 at Table 1.

[85] *Id.* at 25.

[86] 69 FR at 30035; 71 FR 7683.

selective inlet (SSI) Anderson sampler designated as a FRM by EPA. The monitoring site also measures ozone and meteorological parameters including wind speed and wind direction.

The PM–10 sampler is located near the northeast corner on the roof of the pumping station. The current land cover around the pump station is paved parking. There are no obstructions of any kind and there is unrestricted airflow 360 degrees around the sampler inlet.[87]

To the east of the monitor is a paved parking lot, beginning about 25 feet east of the monitor location and extending approximately 50 feet to the east. Beyond the parking area are trailers and undeveloped land. To the north of the monitor is a larger parking lot, beginning about 100 feet north of the monitor location and extending north approximately 525 feet. Beyond the parking lot are a casino hotel, casino, and additional parking lots. To the immediate south (150 feet) and west (300 feet) are the remaining physical plant facilities (tanks, pumps, etc.) and the area is paved. Further south and west are agricultural fields (currently alfalfa). Agricultural fields also lie to the north beyond the casino and parking lot (approximately 0.5 mile). To the east is the SRR residential area.

PM–10 is measured once-in-every-six days by the SRREPA according to the national sampling schedule. Sampling began on August 3, 2006 and continues to the present time.

In 2006 there was a major construction project at the SRR, which involved construction of a casino hotel and associated parking lots. This construction activity, located near the monitor, was ongoing prior to the time the monitor began operation. The original intention of the SRREPA was to begin operation of the monitor and sampling only after completion of the parking lots and external portion of the hotel. Due to delays, however, the construction was not completed until November 2006. The monitor began operating as scheduled on August 3, 2006.

The SRREPA's environmental technician informed EPA that he believes that many of the samples collected since PM–10 monitoring began on August 3, 2006, through mid-November 2006, were unduly influenced by the grading and paving of parking lots immediately adjacent to the monitoring site on the north and east sides of the pump station building where the PM–10 sampler monitor is located.[88] In addition to the exceedance days, much of the data between August 3 and November 25, 2006 submitted to the AQS database, has been flagged as affected by construction activity.[89]

EPA believes there are two bases for excluding the September 14, September 20 and October 26, 2006 exceedances from consideration in determining whether the SJV has attained the PM–10 standard. First, as explained in more detail below, EPA believes that, during the time period the monitor was operating in such close proximity to the construction, the monitor should be considered to have been improperly sited under the principles established in 40 CFR part 58, appendix E. Second, EPA believes that, under its Exceptional Events Rule, the construction activity that occurred within such close proximity to the monitor constitutes an exceptional event that caused the exceedances. EPA believes that both of these rationales, separately or together, support EPA's proposal not to include the SRR monitor data recorded during the period of parking lot construction in our determination of whether the SJV has attained the PM–10 NAAQS.

A. Evaluation Under Principles Established in 40 CFR Part 58, Appendix E

40 CFR part 58 establishes criteria and requirements for ambient air quality monitoring, and appendix E sets forth the probe and monitoring path siting criteria for ambient air quality monitoring. 71 FR 61236 (October 17, 2006). These include both binding requirements and goals. Section 1(b) of appendix E, the Introduction, provides that ''[t]he probe and monitoring path siting criteria discussed in this appendix must be followed to the maximum extent possible.'' Section 58.20 provides that Special Purpose Monitors, which may include monitors on tribal lands, must meet certain requirements of part 58, including appendix E, if the data they collect are to be used for purposes of comparison to the NAAQS. It is not clear whether the monitor in Santa Rosa Rancheria is intended to be designated a Special Purpose Monitor. It is clear, however, that EPA does not intend data from a monitor to be used for purposes of comparison to the NAAQS unless the data meet the criteria set forth in section 58.20, including appendix E. Under the principles established in part 58, appendix E, EPA believes that it is not a reasonable monitoring practice to locate a PM–10 monitor, intended for purposes of comparison to the NAAQS, so close to an obviously temporary dust source, as was the case at the SRR.

Section 3(a) of appendix E, Spacing from Minor Sources, addresses the siting of monitors, including PM–10 monitors. It states that close spacing between a monitor and a minor source may be proper if the purpose of that monitoring site is to investigate emissions from that source and other local sources. However, if, as is the case with the SRR monitor here, the site is to be used to determine air quality over a larger area, such as a neighborhood or city, it should not be placed near local, minor sources, because the plume from the local minor source would inappropriately impact the air quality data collected at the site. It is plain that this occurred in the SRR situation, where the monitor, when it began operating, was only 25 feet from one parking lot construction zone and 100 feet from another.

We believe that in general it is important to avoid placing a particulate monitor inordinately close to a location where active but temporary construction activity is generating dust emissions. As noted above, the SRREPA originally had not intended to start operating the monitor until after the conclusion of the construction activity. As a consequence of monitoring while this construction was still ongoing, the SRR Tribe was compelled to flag data for 12 of the 19 sampling days that occurred between August 3 and November 25, when the construction concluded. Thus more than 60% of the data collected during this time period was considered to be unusable for regulatory purposes.

The dramatic contrast between concentrations monitored while construction was ongoing and post-construction concentrations also testifies to the impact that the improper siting had on the monitored data. After construction ceased, average monitored PM–10 concentrations declined 50%. See discussion below in section VI.B.2.d. below. EPA believes that after the construction concluded the monitor met the appropriate siting criteria.[90]

EPA has concluded that under the very unusual circumstances presented in the SRR, it was not appropriate, according to the principles established in part 58 appendix E, to deploy a new PM–10 monitor, for purposes of comparison to the NAAQS, so close to temporary construction activity, for the duration of that activity. EPA believes it would be unreasonable for the Agency

[87] July 18, 2007 Memorandum, ''On-Site Visit to Santa Rosa Rancheria,'' from Bob Pallarino, EPA, to Sean Hogan, EPA (Site Visit Memorandum).

[88] Site Visit Memorandum.

[89] AQS Raw Data Report, Santa Rosa Rancheria PM–10 2006 to 2007.

[90] Site Visit Memorandum.

to allow the data from such a monitor to determine the attainment status of the SJV.

Conclusion

EPA is proposing to conclude that the exceedances in the SJV at the SRR monitor that occurred on September 14, 2006, September 20, 2006 and October 26, 2006 should be excluded from consideration in determining whether the SJV has attained the PM–10 standard, because during this time period EPA deems that the monitor was not properly sited, under the principles established in part 58, appendix E.

In proposing to find that, during the period of construction, the monitor was not properly sited for the purpose of comparison to the NAAQS, EPA is addressing only the particular facts and circumstances presented by the SRR monitoring operation. EPA notes that the construction activity at the SRR, which occurred in extremely close proximity to the monitor and on tribal land, predated the start of monitoring operations, and that monitoring was originally intended to begin only after the conclusion of construction activity. Under these circumstances, EPA believes that the September 14, September 20 and October 26, 2006 exceedances should be excluded from consideration in determining whether the SJV has attained the PM–10 standard.

B. Evaluation Under the Exceptional Events Rule

In addition to the rationale regarding the siting of the monitor, set forth above, EPA proposes to concur with the SRR Tribe's flagging of the exceedances at the SRR because EPA believes that the construction activity constitutes an exceptional event under EPA's Exceptional Events Rule. Our application of the requirements of the Rule to the SRR exceedances is set forth below.

1. Procedural Requirements

a. Data Are Flagged in EPA's AQS Database

The three exceedances were flagged by the SRR Tribe by the time the data were submitted to the AQS database in 2006.

b. Public Had an Opportunity To Review and Comment on the Tribe's Documentation

EPA is assisting the SRR Tribe by compiling and evaluating the documentation for the exceedances which have been flagged as being caused by exceptional events. The Exceptional Events Rule recognizes that tribes may not be in a position to address all of the requirements of the Rule and thus states that EPA will ''* * * work with tribes on the implementation of this rule, which may include appropriate implementation by EPA of program elements ensuring that any exclusion * * * of data in Indian country with air quality affected by exceptional events comports with the procedures and requirements of this rule.'' 72 FR at 13563. EPA, through this proposed rule, is providing the public with an opportunity to review and comment on the documentation of these exceptional events.

c. The Documentation Was Submitted to EPA

As discussed above, EPA is assisting the SRR Tribe by compiling and evaluating the documentation of the exceedances which they have flagged as being caused by exceptional events.

d. EPA Concurs With the Tribe's Flagging and Demonstration

EPA is proposing to concur with the SRR Tribe's flagging of these exceedances as affected by exceptional events. As discussed above, EPA is assisting the SRR Tribe by compiling and evaluating the documentation of the exceedances it has flagged as being caused by exceptional events, and by ensuring that the public has an opportunity, through this rulemaking, to review and comment upon it.

2. Technical Criteria

a. Did this event satisfy the criteria in section 50.1(j) of the Rule?

i. Affected Air Quality

For an event to qualify as an exceptional event, the state or tribe must show that the event affected air quality. Here, EPA, on behalf of the SRR Tribe, needs to show that the event, identified as construction activity, affected air quality at the SRREPA PM–10 monitor. This criterion can be met by establishing that the event is associated with a measured exceedance in excess of normal historical fluctuations, including background, and there is a causal connection between the event and the exceedance. This demonstration of a causal connection is necessary to establish that the event affected air quality, and it is also a separate statutory requirement as discussed above.

Because the SRREPA PM–10 monitor has been in operation only since August 2006, it is not possible to compare the data from exceedance days to historical levels. In this case, however, we can look at data that have been collected since the construction and parking lot paving was completed to determine representative concentrations of PM–10 in the absence of a large, earth-disturbing project such as the construction, grading and paving of parking lots. We discuss the range of data and its fluctuation in more detail in subsection c. below.

We also need to show the causal connection between the exceptional event, in this case construction activity, and the exceedances recorded. In addition to other information provided during EPA's on-site visit, the SRREPA has provided EPA with wind speed and wind direction data collected at its site that show the wind was blowing in the appropriate direction and demonstrates that the PM–10 monitor was downwind of the construction activity on the exceedance days. We discuss the causal connection between the construction activity and the exceedances in more detail in subsection b. below.

ii. Not Reasonably Controllable or Preventable

Section 50.1(j) of the Exceptional Events Rule requires that for an event to qualify as an exceptional event, whether natural or anthropogenic, a state, tribe (or, in this case, EPA) must show that the event was not reasonably preventable or controllable.

EPA believes that it would not have been reasonable to prevent the activity, i.e., paving of parking lots that were needed for the SRR Tribe's facilities. Paving a parking lot (which involves grading the ground, applying a base material such as gravel and applying asphalt) is a generally accepted form of control of PM–10.[91] To prevent the paving of a parking lot would not only be unreasonable, but illogical.

With respect to whether the event was reasonably controllable, we note that the SRR Tribe does not have PM–10 control measures in place and is not subject to the fugitive dust control regulations adopted by the SJVAPCD. As discussed in the Exceptional Events Rule, ''Tribes are not required to develop TIPs or otherwise implement relevant programs under the CAA. * * *'' [92] ''EPA recognizes Tribal Governments as sovereign entities with primary authority and responsibility for the reservation populace. Accordingly, EPA will work directly with Tribal Governments as the independent

[91] See, for example, SJV Rule 8051 Open Areas (Adopted November 15, 2001; Amended August 19, 2004) and Rule 8071 Unpaved Vehicle/Equipment Traffic Areas (Adopted November 15, 2001; Amended September 16, 2004).

[92] 63 FR 7254, 7265 (February 12, 1998); 72 FR at 13563.

authority for reservation affairs, and not as political subdivisions of States or other governmental units.'' [93]

While paving itself is a control measure, EPA recognizes that other control measures may be reasonable during a paving process. For example, the SJVAPCD regulations require, among other things, that regulated construction sites apply as appropriate water or chemical/organic stabilizers or construct and maintain wind barriers.[94] In the circumstances of the SRR, however, even if these types of measures had been actively employed, we cannot be certain that they would have prevented exceedances at the PM–10 monitor. This is due in large part to the unusual circumstance presented here of the very close proximity of the construction activity to the monitor. As noted above, one of the parking lots was within 25 feet of the monitor, and the other was within 100 feet.

EPA's evaluation of the parking lot construction activity's impact on the monitor, and whether it was reasonably controllable, during the activity, is informed by EPA's views on what constitutes acceptable monitor siting. As EPA has set forth in detail above, EPA believes that, for the duration of the construction activity, the monitor was not properly sited for the purposes of determining attainment of the SJV, and that as a result it was inordinately impacted by that activity.

The provisions of 40 CFR part 58, appendix E regarding the siting of PM–10 monitors, are instructive with respect to EPA's analysis of the exceedances under the Exceptional Events Rule. We cannot conclude that the activity was reasonably controllable given that the exceedances were measured at a monitor that EPA's rule provides should not be operated at such a time and place, for the purposes of determining attainment. Thus, under the particular set of circumstances presented here, for the purposes of evaluating the ''reasonably controllable'' criterion of the Exceptional Events Rule, we deem this criterion to have been satisfied.

iii. Was an Event Caused by Human Activity That is Unlikely to Recur at a Particular Location

In this case, the event was paving of parking lots in the vicinity of the PM–10 monitor, and is a construction activity that is not expected to recur at that location.

iv. Determined by EPA To Be an Exceptional Event

Finally, EPA must determine through the process established in the Exceptional Events Rule whether an exceptional event occurred. The Exceptional Events Rule has both procedural requirements and technical criteria that we are assisting the SRREPA in meeting. We believe that by the initial flagging of the data, and through the vehicle of this proposed rulemaking we will demonstrate that the procedural requirements and technical criteria of the rule will have been met.

b. Is there a clear causal connection between the exceedances and the claimed exceptional event?

Under 40 CFR 50.14(c)(3)(iii)(B), a clear causal relationship must be established between the measured exceedance and the claimed exceptional event. The information compiled by EPA shows a clear causal connection between the exceedances and the construction activity at the nearby parking lots. The SRREPA environmental technician observed the conditions at the time the monitor was operating and noted on the sample tracking forms, which are completed with each sampling run, that there was construction nearby. Copies of these tracking forms are included in the documentation for this rulemaking.

The SRREPA measures wind speed and wind direction at the SRR monitoring site. These meteorological data indicate that on the three days that exceeded the NAAQS, winds were predominantly from the northwest to northeast. This would indicate that any dust-producing activity north and northeast of the monitor would result in high concentrations of geologic dust being blown towards the monitor.

The meteorological data lend support to the environmental technician's account of the events of that day. EPA also discussed these events with the SRR construction superintendent, who agreed with the environmental technician's account of the construction activity. A private consultant working for the SRREPA also stated that he had witnessed major earth-disturbing activities on these days.[95]

Based on the meteorological data, eyewitness accounts, and an on-site inspection of the monitoring site location and its proximity to the parking lots, we believe that there was a clear causal connection between the construction activity and the recorded PM–10 exceedances.

c. Can it be demonstrated that the event is associated with a measured concentration in excess of normal historical fluctuations including background?

For EPA to concur with the SRREPA's claim that an exceptional event caused an exceedance, one of requirements is to show that the event is associated with concentrations that are beyond the normal historical fluctuations. See 40 CFR 50.14(c)(3)(iii)(C).

Of the 44 samples collected by the SRREPA, nearly 80% of the samples (35 days) were less than 100 $\mu g/m^3$. After completion of the paving projects in mid-November, 2006, average PM–10 concentrations dropped by more than 50%, from an average of 97 $\mu g/m^3$ to an average of 45 $\mu g/m^3$.[96] This would indicate that the construction activity had an obvious effect on the concentrations recorded by the SRR monitor and that the data collected during this construction period, including the exceedances recorded in September and October, 2006, were not representative of typical post-construction PM–10 concentrations at the location of the monitor.

d. Can it be demonstrated that there would have been no exceedance ''but for'' the event?

To qualify as an exceptional event, there must be an analysis which demonstrates that there would have been no exceedance ''but for'' the event. 40 CFR 50.14(c)(3)(iii)(D). Such analyses do not require a precise estimate of the estimated air quality impact from the event. 72 FR at 13570.

To meet this requirement, EPA believes the SRREPA environmental technician, consultant and the SRR construction superintendent have clearly indicated that the exceedances occurred on days where nearby construction was also occurring. As EPA has shown, the proximity of the monitor to the construction activity and the concomitant infeasibility of control measures to prevent the exceedances also demonstrate that there would have been no exceedances but for the construction activity. Given these factors and the fact that the average PM–10 concentrations dropped by more than 50% after the completion of the paving projects, we believe the weight of evidence shows that the exceedances would not have occurred but for the construction activity.

[93] 59 FR 43956 (August 25, 1994).

[94] SJV Rule 8021 Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities (Adopted November 15, 2001; Amended August 19, 2004).

[95] Site Visit Memorandum.

[96] Santa Rosa Rancheria PM–10 24 hour average concentrations, Excel spreadsheet, Bob Pallarino.

3. Mitigation Requirements

Under 40 CFR 51.930, a state or tribe requesting to exclude air quality data due to exceptional events must take appropriate and reasonable actions, including public notification, public education and implementation of measures, to protect public health from exceedances or violations of the NAAQS. In the case of the SRR, EPA recognizes that tribes may implement only portions of air quality programs and not be in a position to address each of the procedures and requirements associated with excluding or discounting data. In the preamble to the Exceptional Events Rule, EPA cites an example of tribes that ''* * * 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. * * *'' 72 FR at 13563. That is the case with the SRR. Under these circumstances, as indicated in the preamble to the Exceptional Events Rule, EPA intends to work with the SRR on the implementation of the Rule.

Conclusion

EPA believes that the construction activities at the SRR on September 14, 2006, September 20, 2006 and October 26, 2006 were exceptional events as defined under 40 CFR 50.1(j). EPA believes that there is sufficient weight of evidence to conclude that the construction activities caused the exceedances on the exceedance days, and that the exceedances would not have occurred but for the construction activity. The proximity of the construction activities to the monitor and the wind direction recorded at the monitor support this conclusion. Because EPA believes that the provisions of the Exceptional Events Rule have been satisfied, EPA is proposing to concur with the SRR Tribe's flags indicating that these exceedances were due to exceptional events, and to exclude the data from consideration in determining whether the SJV has attained the PM–10 standard.

In proposing to concur with the SRR Tribe's flags that construction activity at SRR constituted exceptional events, EPA is addressing only the particular facts and circumstances presented by the SRR monitoring operation. In general, fugitive dust control measures employed during construction activities are helpful in reducing ambient PM–10 concentrations and avoiding exceedances of the NAAQS. However, in the specific circumstances of the SRR during the days when exceedances were recorded, we are not able to conclude that the event was reasonably controllable due to the very close proximity of the monitor to the construction activity, and the other factors discussed above. Given this singular constellation of factors, EPA is proposing to concur with the Tribe's flagging of the exceedances on September 14, September 20 and October 26, 2006 as caused by exceptional events.

VII. Summary of Exceedances From 2004 Through 2006

The table below provides a summary of exceedances relevant to today's proposed rule that were recorded at monitors located within the boundaries of the SJV. The table indicates, whether in determining attainment, EPA has excluded or proposes to exclude the exceedance, based on a finding that it was due to an exceptional event. The 24-hour standard is attained when the expected number of days per year with levels above 150 $\mu g/m^3$ (averaged over a three-year period) is less than or equal to one. 40 CFR part 50, appendix K. As shown in the table, all of the monitoring locations are meeting the PM–10 standard.

TABLE SUMMARIZING PM–10 24-HOUR EXCEEDANCES IN THE SJV

[From 2004 through 2006]

Monitor	Operating schedule	Recorded (observed) exceedances 2004—2006		Number of estimated exceedances		Average number of annual exceedances 2004—2006
		Date	Conc	Included in attn. deter.	Reason for excluding exceedance	
Corcoran Manual FRM ...	1 in 3 day	9/3/04	217	No	Exceptional Event	0
		9/22/06	215	No	Exceptional Event	.....
Corcoran TEOM	Continuous	9/22/06	261	No	Exceptional Event	0
		10/25/06	304	No	Exceptional Event	.....
		12/8/06	162	No	Exceptional Event	.....
Bakersfield Golden Manual FRM.	1 in 6 day	9/22/06	157	No	Exceptional Event	0
Bakersfield Golden BAM	Continuous	11/22/05	156	Yes	N/A	0.67
		11/23/05	180	Yes	N/A	.....
Bakersfield Golden TEOM.	Continuous	9/22/06	157	No	Exceptional Event	0
		10/25/06	193	No	Exceptional Event	.....
		12/8/06	213	No	Exceptional Event	.....
Tracy BAM	Continuous	9/22/06	161	Yes	N/A	0.33
Oildale Manual FRM	1 in 6 day	9/22/06	162	No	Exceptional Event	0
Santa Rosa Rancheria Manual FRM.	1 in 6 day	9/14/06	190	No	Exceptional Event	0
		9/20/06	158	No	Exceptional Event	.....
		10/26/06	157	No	Exceptional Event	.....

Sources:
EPA Air Quality System Database.
E-mail from Steven Shaw, SJVAPCD to Bob Pallarino, EPA Region 9, April 20, 2006.
E-mail from Steve Shaw, SJVAPCD to Bob Pallarino, EPA Region 9, October 12, 2006.

VIII. Petitions for Reconsideration and Withdrawal

A. Winds and Wildfires on September 22 and October 25, 2006

Earthjustice filed its 2006 Petition for Reconsideration (PFR) before the State provided its exceptional event documentation for the September 22, 2006 exceedances to the public or EPA. At that time CARB and the District had simply informed EPA that, based on preliminary analysis, they believed that these exceedances were due to high wind and wildfire natural events. Similarly, when Earthjustice filed its 2007 Petition for Withdrawal (PFW) and the accompanying Jan Null declaration, the State had not yet submitted the complete documentation for the September and October 2006 exceedances on which EPA is basing this proposed rule. Therefore Earthjustice's conclusion in the petitions that the September 22, 2006 and October 25, 2006 exceedances do not qualify as natural events does not address the technical analysis of the winds and wildfires as ultimately submitted by the State and which EPA has evaluated in section V. above. To the extent that Earthjustice's assessments in the petitions of the nature and effect of the winds and wildfires are currently relevant, we believe our evaluation in section V. addresses the significant points raised in them.

In addition, since EPA, as stated in section V. above, agrees with the petitioners that regional transport from north of the SJV and the northern SJV and wildfires were not the cause of the exceedances on September 22 and October 25, it is unnecessary for EPA to further address the arguments raised by petitioners with respect to these theories.

B. Notice/Comment on September 22 and October 25, 2006 Exceedances

The gravamen of the 2006 petition, which is reiterated in the Petition for Withdrawal, is Earthjustice's claim that EPA did not provide the public with an opportunity to comment on the September 22, 2006 exceedances and thus should not have finalized the attainment determination for the SJV. PFR at 2–4. Petitioners also complained that EPA did not require adequate documentation that these exceedances were caused by exceptional events. PFR at 3–4.

Contrary to Earthjustice's assertions, EPA did not abuse its discretion in addressing the September 22, 2006 exceedances in its October 2006 determination of attainment. EPA noted at the time that the exceedances were based on preliminary data only: ''Because these data, which were collected using manual reference method samplers, are preliminary and have not been quality assured, and because EPA believes that they may qualify as caused by natural events, and thus be excluded from consideration in an attainment determination, EPA is proceeding to finalize its determination that the area is in attainment.'' 71 FR 63642. Thus the data had not been quality assured, and in addition EPA was on notice that CARB and the District intended to flag the data as due to exceptional events and to request EPA's concurrence on excluding the data from consideration in an attainment determination.

EPA went on to note that ''[i]f, after the data is quality assured, and after further evaluating CARB's request with respect to these data, EPA determines that the data do not qualify for exclusion under EPA's natural events policy, and EPA further believes that if included that they would establish that the area is in violation of the NAAQS, EPA will proceed with appropriate rulemaking action to withdraw its determination of attainment.'' *Id.* It was thus clear that EPA's determination was subject to revision based on subsequent quality assurance and evaluation of the data, and EPA outlined its projected procedure for dealing with the data once they were quality assured and EPA had an opportunity to evaluate the documentation of the potential exceptional events.

In this proposed rule, EPA is following through with this procedure, and is now providing for full notice and an opportunity for comment, in the context of a rulemaking, on whether those exceedances qualify as caused by exceptional events. EPA is also providing notice and opportunity for comment on additional claims that exceedances were caused by exceptional events on October 25, 2006, and December 8, 2006, and at the Santa Rosa Rancheria on September 14 and 20 and October 26, 2006.

Contrary to Earthjustice's contention in its Petition for Reconsideration and Petition for Withdrawal, EPA did not reverse the burden of proof required to establish an exceptional event, or relieve the State from the obligation to document its claims. PFR at 4; PFW at 17. In the final determination, it is clear that EPA did not conclusively concur in excluding the data without requiring appropriate documentation and a showing from the State. Rather, EPA deferred its determination on the impact of the preliminary data until the data could be quality assured and the State would have an opportunity to meet its burden of showing that an exceedance qualified as caused by an exceptional event.

Finally EPA notes that Earthjustice alleges in its 2007 petition that the Agency ignored in its final attainment determination the October 25, 2006 exceedances as well as the September 22, 2006 exceedances. PFW at 2. This is not the case. The exceedances in October occurred eight days after EPA promulgated its final determination of attainment, on October 17, 2006. (The notice was published on October 30, but the determination had been signed and disseminated to the public on October 17). Thus, EPA had no information on these exceedances at the time of its final action.

C. Wind Conditions in the Valley

With respect to the existence of high winds in the Valley generally, Earthjustice, in both petitions, characterizes statements in the 2003 PM–10 Plan for the area as concluding that wind erosion is not a significant contributing factor in dust emissions and as suggesting that winds with enough velocity to cause erosion disperse PM–10 concentrations and/or transport PM–10 out of the Valley. PFR at 4; PFW at 8. Earthjustice in its 2007 petition also cites a letter from the District to EPA which states that ''there is no evidence of any significant linkage between high winds and PM–10 federal exceedance events [in the Valley].'' *Id.* at 8–9.

Earthjustice has taken the statements in the 2003 Plan to attain the PM–10 standard out of context. Chapter 2 of the Plan, quoted by Earthjustice, is a 12-page general overview of the San Joaquin Valley Air Basin, the purpose of which is to describe normal or typical meteorological conditions. It is not intended to nor does it address unusual winds such as those under consideration here that may occur in the Valley. Nevertheless, the District did determine that windblown dust is not a significant problem in the SJV for the purposes of attaining the PM–10 standard. For example, the Plan states that ''[w]ind related PM–10 events are rare but possible when conditions are right'' and that ''PM–10 readings in the SJVAB are most severe during the fall and winter periods when wind speed and direction are not conducive to interregional transport.'' 2003 PM–10 Plan, ES–10, 2–6. The District also states that ''winds are effective in dispersing PM–10 concentrations and/or transporting PM–10 out of the Valley'' in explaining why the spring and

summer months, which are the windier months of the year in the SJV, do not yield higher PM–10 levels.

However, the fact that PM–10 pollution from windblown dust is not generally a significant enough problem in the SJV that it needs to be controlled for the purposes of attaining the PM–10 standard, does not mean that windblown dust cannot cause an exceedance of the standard. In addition, even if windblown dust were a significant problem, there could be individual situations where particular conditions make it unreasonable to expect the District and State to be able to control sources in those circumstances. For such situations, EPA has issued the Exceptional Events Rule, and previously its policies, which as discussed above allows exceedances caused by exceptional events to be excluded from regulatory considerations as appropriate if certain conditions are met. Since there are many variables that can cause exceptional event exceedances, EPA believes the analyses for such events should be reviewed on a case by case basis. 72 FR 13560. For example, not all high wind days will lead to exceedances and not all exceedances monitored when high winds are recorded are necessarily due to those high winds. For the exceedances discussed in today's proposal, however, EPA believes the State has made an adequate demonstration that they were caused by exceptional events and have met all of the Exceptional Events Rule requirements, and thus the data for these particular events should be excluded from regulatory consideration.

Earthjustice also cites a letter from the District to EPA responding to a letter from Charles Swanson to EPA commenting on the 2003 PM–10 Plan. April 15, 2004 letter from James Sweet, SJVAPCD, to Doris Lo, EPA (Sweet letter). Mr. Swanson disputes the following passage from Table G–15 in Appendix G entitled ''BACM Comparative Analysis for 'On-Field Activities''' concerning the BACM justification discussion associated with the ''Other'' category of the District's proposed Agricultural Conservation Management Practices:

> The SJV does not have a windblown dust problem to anywhere near the extent of the other nonattainment areas. The SJV has some of the lowest average wind speeds in the country. No wind related exceedances have been recorded in the basin during the last three years. Wind speeds are highest during the spring when PM–10 levels are at their lowest. The majority of the fugitive dust emissions are generated from earth disturbing activities. Certain soil types and crops are more prone to windblown dust problems. The ''Other'' category will give the farmers with the potential to experience wind blown dust emissions the flexibility to address this issue with a CMP.

March 18, 2004 letter from Charles Swanson to Doris Lo, EPA (Swanson letter) at 1.

In responding to Mr. Swanson, the District stated in its April 15, 2004 letter that ''[t]he statements in the Plan provide a general characterization of the San Joaquin Valley (SJV) and, as with all generalizations, are not without exception.'' Sweet letter at 1. Furthermore, while, as Earthjustice points out, the District did also state that an analysis of all wind events since 1990 did not establish a linkage to PM–10 exceedances, the District also enumerated technical limitations that bear directly on this conclusion. For example, the data used did not report wind gusts and the 1 in 6 day sampling for PM–10 will not capture all wind events. Sweet letter at 7–8. Therefore, Earthjustice's attempts to characterize the statements in the Sweet letter regarding windblown dust as absolute is not warranted. Finally, the District also asserts that:

> Evaluation of past events indicates that often the area with the highest PM–10 levels is not where the wind is highest, but rather where the wind begins to slow. To understand the dynamics of this pattern we need only review the mechanisms for entrainment and deposition. When the wind slows, it can no longer keep the larger PM–10 particles aloft and they settle toward the surface. The settling of particulates aloft * * * results in an increased concentration in the deposition area.

Sweet letter at 2. This scenario is precisely what occurred on September 22 and October 25, 2006 as discussed in section V. above.

D. EPA's Natural Events Policy

1. BACM Implementation

In both petitions Earthjustice asserts that EPA's 1996 Natural Events Policy requires that the State demonstrate that BACM were in place and that all sources were in compliance in order for EPA to concur on a high wind natural event request. PFR at 5; PFW at 9. Earthjustice contends that the State cannot demonstrate that agricultural sources were in compliance at the time of the wind event since it is not clear if any compliance inspections had been conducted.

As discussed in sections IV. and V., EPA is evaluating the State's exceptional event documentation under EPA's Exceptional Event Rule and not under its pre-existing policies. The Rule does not require either a showing that BACM was in place at the time of the event or proof that sources were in compliance. Rather, in the preamble to the Rule EPA states that the State must take reasonable and appropriate measures under these circumstances. 72 FR at 13576–13577. That said, EPA has approved the District's BACM demonstration for all significant sources of PM–10 in the Valley, including agricultural sources, as meeting CAA section 189(b)(1)(B). 69 FR at 30035; 71 FR 7683. Moreover the State's documentation for the September 22 and October 25, 2006 events includes information on compliance inspections throughout the SJV. See section V. above.

2. District's Natural Events Action Plan

In its 2007 petition Earthjustice claims that for the September 22, 2006 exceedances the District failed to meet the requirements of its Natural Events Action Plan for ''[a]cceptable documentation for establishing an extraordinary natural event * * *.'' Specifically, Earthjustice contends that acceptable documentation for establishing ''an extraordinary natural event'' includes issuance by the national Weather Service of a high wind or blowing dust advisory, the occurrence of strong winds aloft and surface wind maps showing potential for high winds to occur at the site. According to Earthjustice no adequate documentation of these factors was offered. PFW at 11.

Earthjustice's statements regarding the requirements for documentation under the District's ''Natural Events Action Plan for High Wind Events in the San Joaquin Valley Air Basin,'' February 16, 2006 (NEAP) appear in the portion of its 2007 petition that addresses the causal relationship between high winds and the September 22, 2006 exceedances. *Id.* Section 3 of the NEAP concerns the documentation of high wind events and lists specific sources of documentation suggested by EPA: Filter analysis, meteorological data, modeling and receptor analysis, videos and/or photographs, maps, news accounts and BACM[97] requirements. Section 6 of the NEAP concerns meteorological forecasting criteria. This section states that if certain enumerated criteria are met, the District, in consultation with CARB, will declare a NEAP episode. The items that Earthjustice contends are required to document an exceptional event are among these criteria. Thus Earthjustice has confused forecasting an exceptional event with the documentation of it. EPA believes that

[97] As noted above, BACM implementation is not required under EPA's exceptional events rule.

the State has adequately documented the September 22, 2006 exceedances as being caused by all exceptional events as discussed above in section V.A.

Finally we note again that EPA is proceeding in this rulemaking under its Exceptional Events Rule rather than the 1996 policy it replaces. In the preamble to the Rule, EPA explained that ''following the promulgation of this rule, States will no longer be required to keep NEAPs in place that were not approved as a part of a SIP for an area.'' 72 FR at 13576.

E. Harvest Activities

Earthjustice asserts in its 2006 petition that September is the peak harvest season for cotton and almonds and that EPA should investigate the contribution of these activities to the September 22 exceedances. PFR at 6. In the 2007 petition Earthjustice states that the end of October is generally when two of the dustiest crop harvests, cotton and almonds, take place and that these activities caused the October 25 exceedances. PRW at 13–14. EPA discusses the effect of anthropogenic sources on the 2006 exceedances in section V. above.

F. Exceedances at Corcoran and Stockton in 2004, Bakersfield in 2005 and the Santa Rosa Rancheria in 2006

The 2007 petition raises issues regarding several exceedances that have already been addressed by the October 2006 attainment determination. These exceedances occurred on September 3, 2004 at Corcoran and Stockton and on November 22–23, 2005 at Bakersfield. EPA's position on these exceedances is found in the final rule at 71 FR at 63658–63661.

Regarding the September 3, 2004 exceedance, Earthjustice states that EPA must now evaluate whether the Agency can concur on the State's request to flag the exceedance as a high wind event and cannot continue to rely on the argument that it is irrelevant because ''even if EPA had not concurred with the exclusion of this data, the Corcoran site would still attain the 24-hour NAAQS * * *.'' Earthjustice takes this position because it believes there are now other exceedances at Corcoran that cannot be excluded and that the September 3, 2004 exceedance will thus be important in determining the SJV's PM–10 attainment status. PFW at 9.

EPA disagrees with Earthjustice's contention that there are now other exceedances that cannot be excluded. As discussed above, EPA believes the exceedances on September 22, October 25 and December 8, 2006 are all due to exceptional events and is proposing to concur with the State's request to flag these data as caused by high wind events. Thus our conclusion that the September 3, 2004 exceedance is not significant for the attainment determination is still valid.

Regarding the November 2005 exceedances at Bakersfield, EPA stated in its determination of attainment that ''[e]ven if the Bakersfield-Golden State Highway BAM and TEOM data are considered together (and even if they were quality-assured data not subject to natural events), the exceedances recorded at these monitors would not show that the area is in violation of the standard.'' 71 FR at 63659. As discussed above, EPA believes that the exceedances at Bakersfield in 2006 were due to exceptional events and is proposing to concur with the State's request to flag these data. Thus we still believe that the 2005 Bakersfield-Golden exceedances, when considered for purposes of our 2006 attainment determination, would not contribute to or constitute a violation.

In the 2007 petition Earthjustice also raises questions about exceedances recorded at the Santa Rosa Rancheria on September 14, 20 and October 26, 2006. PFW at 15–16. EPA addresses these exceedances in section VI. above.

IX. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this proposed action is not a ''significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001). This action merely proposes a determination based on air quality data and does not impose any additional requirements. Accordingly, the Administrator certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). Because this proposed rule does not impose any additional enforceable duty, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4).

Executive Order 13175 (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.'' Several Indian tribes have reservations located within the boundaries of the SJV. EPA is aware of only one tribe in the SJV that operates a PM–10 monitor, the Santa Rosa Rancheria. EPA has consulted with representatives of the Santa Rosa Rancheria Tribe on the data recorded by their monitor, and the flagging of the data, and will continue to work with the Tribe, as provided for in Executive Order 13175. Accordingly, EPA has addressed Executive Order 13175 to the extent that it applies to this action. This proposed action also does not have Federalism implications because it does 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 (64 FR 43255, August 10, 1999). This proposed action merely makes a determination based on air quality data and does not alter the relationship or the distribution of power and responsibilities established in the CAA. Executive Order 12898 establishes a Federal policy for incorporating environmental justice into Federal agency actions by directing agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Today's action involves proposed determinations based on air quality considerations and proposes to affirm that the San Joaquin area has attained the PM–10 NAAQS. It will not have disproportionately high and adverse effects on any communities in the area, including minority and low-income communities.

This proposed rule also is not subject to Executive Order 13045 ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it is not economically significant. The requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This proposed rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Particulate matter, Reporting and recordkeeping requirements.

40 CFR Part 81

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

Dated: August 15, 2007.

Wayne Nastri,

Regional Administrator, Region 9.

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