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Deputy Secretary

August 26, 2005

Ms. Lydia Wegman  
USEPA RTP  
Mail Code: C504-01  
Research Triangle Park, North Carolina 27111

Subject: Draft Exceptional and Natural Events Rulemaking

Dear Ms. Wegman:

We have reviewed the Staff Work Paper On the Use of Air Quality Data Related to Exceptional and Natural Events for the Particulate Matter Standard and have made the following comments. Note that Section numbers cited below refer to sections in the Staff Work Paper.

1. We commend to you the WESTAR Natural Events Policy Workgroup Recommendations previously provided by WESTAR (see attached). Workgroup members from several states worked very hard to put these recommendations together, and we believe the recommendations provide many useful ways to avoid problems that have arisen in the implementation of the Natural Events Policy. In the Staff Work Paper, EPA does not appear to have taken these recommendations into consideration.
2. International transport: Language in Sect. 6.1, and the heading of Sect. 6.11, would appear to make this rule apply only to events that are both "natural events" (wildfires, high winds etc.) and international transport, presumably where the natural event causing the emissions has occurred in another country. If so, it can be very difficult to determine whether the sources in the other country are natural or anthropogenic. For example, it will be difficult to determine whether fires in other countries are wildfires (natural event) or prescribed fires (not a natural event), or to determine whether sources of windblown dust are from natural sources (undisturbed desert) or anthropogenic (fallow farm fields, dirt roads). International transport events that are recurrent and not from natural sources do not appear to meet the definition of "exceptional event" in HR 3. Perhaps CAA Section 179B, rather than this proposed rule, would apply to such cases of recurrent, anthropogenic international transport events. The relation between this rule and CAA Section 179B is needed. The Staff Work Paper does not specify what actions are required to address local sources, inform the public, and mitigate

health impacts of natural events due to transport from international sources. Sect. 2 says that such guidance is included, but nothing is specified in Sect. 6.11.

3. The Staff Work Paper is not clear regarding which sources should be subject to emission controls. In Sect. 2, guiding principle 5 says controls should be applied to "sources", without distinction between natural and anthropogenic sources. We think control requirements should be limited to anthropogenic sources only. Also, the language appears to specify two criteria for whether controls are required: 1) the source contributes to exceedances or violations, and 2) the controls would result in fewer exceedances or violations of standard. However, the second criterion does not appear in Sect. 6.4, which states that BACM level controls are required for "all contributing anthropogenic sources (emphasis added)". Is there a threshold for amount contributed, or are controls required on all anthropogenic sources? Furthermore, it should be made clear that the number of exceedances or violations may not be observed to decrease even though controls have been applied to contributing anthropogenic sources, because of variations in the natural contribution, in the occurrence of wind speeds which are capable of overcoming BACM, and in the amount of controlled (yet emitting) anthropogenic sources. We are concerned that language referring to expected decreases in the number of exceedances would be misused, by taking the observed number of exceedances as a measure of the adequacy of controls.
4. In footnote 5 of Sect. 3, regarding only one NEAP being required for both the annual and 24-hr standard, it should be clarified that this is in reference to the same type of natural event. Separate NEAPs should be required for different types, such as dust storms and wildfires. It should also be clarified that only a single NEAP would be required for both  $PM_{2.5}$  and  $PM_{\text{coarse}}$ , for a given type of natural event.
5. We agree that flagging of data below the 24-hr standard should be allowed, to remove the influence of natural events on compliance determinations for the annual standard. However, it should be noted that states could have a great many 24-hr values that are over the annual standard concentration limit because of natural events. States may not know whether natural events have caused a violation of the annual standard until late in the 3-year period required for determining compliance. At that time, it will be too late to meet the requirement that all flagging and documentation be submitted within 60 days after the end of the quarter in which the event occurred. As a precaution, states will therefore need to take an aggressive approach to identifying, flagging and documenting natural events. This will result in the flagging of many more natural event daily values than the minimum necessary to ensure that the natural events do not cause the annual standard to be violated. This will generate a lot of unnecessary work for the State and EPA, work that does nothing to protect public health. We recommend that flagging and documentation deadlines for instances where the annual standard is affected be set at some reasonable time after the end of the year in which the annual standard concentration would be exceeded because of natural events.

6. Requirements for documentation of high wind events (Sect. 6.4) reflect a lack of understanding of the meteorological and other natural conditions under which high concentrations of wind-suspended dust can occur. We do not understand why there is reference to "average wind speeds" instead of just "wind speeds". Is there an averaging time implied? If so, it should be recognized that dust suspension responds to variations in wind speed over very short time scales (less than a minute), so that wind speeds averaged over longer time periods (hour, 24 hours) need not be very high for dust to be suspended from highly vulnerable surfaces. We also object to the requirement that wind speeds must be shown to have been "unusual or untypical". Wind speeds need not be "unusual or untypical" to raise substantial amounts of windblown dust, as for example if the source area is large, nearby, and in a condition highly susceptible to blowing. Also, the requirement that the high winds be experienced at the monitoring site in question (meaning the one recording the exceedance?) does not account for the suspension of large amounts of dust by high winds at some distance away from the monitoring site, which dust once suspended can then be carried to the monitoring site by low-speed winds. This is a common phenomenon in southern NM, especially in early summer when thunderstorms often produce vigorous downdrafts but little rain, and desert soils have not yet received enough rain to re-form surface crusts and regenerate a protective cover of vegetation. These thunderstorm downdrafts can be highly localized, with little or no affect on wind speeds at sites miles away where the suspended dust may eventually be carried.
7. We agree in general with the need to provide public notification and education to minimize exposure and adverse health effects (Sect. 6.5). However, in the case of high wind events, we note that the final PM Staff Paper for the current standards review appears to consider "natural crustal" PM to be benign and without adverse health effects. We do not agree with this view, but the drafters of the exceptional events rule should consider whether any meaningful health advisories for windblown dust could be developed on the basis of the current Staff Paper. Also, we do not think it is necessary to inform people that a dust storm is imminent or currently taking place. In New Mexico, dust storms that result from frontal passage are somewhat predictable, but the Weather Service usually issues warning of possible blowing dust for these storms anyway, primarily to alert motorists of possible reduced visibility. However, the time and location of dust storms resulting from thunderstorm downdrafts are very difficult to predict, and an aggressive approach to issuance of warnings would result in many false alarms, which would erode credibility. Public health professionals advised us not to issue warnings that a dust storm was taking place, because this is obvious to everyone. Instead, we issue a general advisory at the beginning of the windy season telling people that dust storms may occur during upcoming season, that they may adversely affect health, and we suggest precautions to take for protection of health if they see that a dust storm is occurring. Even this advisory has been ridiculed in newspaper editorials, on the grounds that New Mexico residents who live in our desert areas do not need the government to tell them they might experience dust storms.

8. The Staff Work Paper proposes requiring documentation to be submitted within 60 days after the quarter in which the event occurred. This deadline does not allow sufficient time for data collection and QA to determine that an exceedance has occurred, collecting and analyzing supporting information, and writing the report to the Regional Office. This deadline is especially problematic for filter-based monitoring methods. Developers of this rule should note that current federal rules do not require submission of data to AQS until 90 days after the end of the quarter. Our current data collection and QA procedures are set up to meet this 90-day deadline. Verified data are not usually available until 45 to 65 days after the end of the quarter.
9. The standard of proof for documentation does not agree with the stated purpose of flagging and documentation. The purpose of the data flagging system is described as being to ensure that data are not misused or misinterpreted. However, the standards for acceptable documentation and Regional Office concurrence set a high standard requiring that the S/L/T agency prove or provide a "compelling" case for data to be flagged due to a natural event. This and other language effectively adopts a "guilty until proven innocent" principle. Drafters of this rule should acknowledge that in some instances it would be very difficult to prove in a compelling fashion that an exceedance was caused by a natural event. Often the data to support such a conclusion are circumstantial and indirect, but nevertheless stronger than the alternative conclusion that the cause was traditional anthropogenic sources (industrial, area, and mobile sources). The standard for documentation and concurrence should be based on a preponderance of the evidence and best scientific judgment, with no *a priori* presumption as to whether the cause of the exceedance was a natural event or traditional pollutant sources. EPA should be aware that application of the "guilty until proven innocent" principle will inevitably lead to instances of misuse and misinterpretation of data, with serious adverse consequences for citizens and governments at the local and state level. Drafters of the current proposal appear to have ignored or deliberately reversed the policy outlined in the OAQPS letter of August 17, 1998, to Regional Office Air Program Directors. For example, this letter states:

*"The documentation process was never meant to be a high hurdle test but was meant to be one that was clearly credible and could withstand public scrutiny and legal challenge. For the types of events covered in this policy, it was anticipated that news articles and supporting weather reports could be adequate...I would encourage you to discuss these issues with your staff and with regard to EPA's oversight role and make sure that we are complying with the intent of this policy and are not reverting to an approval/disapproval role on the NEAPs."*

The letter also correctly notes that review by the public plays an important oversight role to ensure that the policy is implemented to ensure protection of public health.

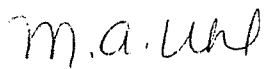
The Staff Work Paper's requirements for documentation and Regional Office concurrence make this process equivalent to a SIP approval, but without the additional grant funds

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provided for SIPs and necessary in this case for additional monitoring and analysis to meet the high hurdle of proof proposed for natural events.

Thank you for considering our comments on this issue that is of high concern for New Mexico. Please call or email either Brad Musick (505-955-8019; brad.musick@state.nm.us) or Gail Cooke (505-955-8022; gail.cooke@state.nm.us) of my office if you would like clarification on any of these issues.

Sincerely,

A handwritten signature in cursive script that reads "M. A. Uhl".

Mary Uhl  
Acting Chief, Air Quality Bureau

Attachment

cc: Larry Wallace, EPA