

WESTERN STATES AIR RESOURCES COUNCIL



December 26, 2007

Ms. Charlene Spells  
U.S. Environmental Protection Agency  
Office of Air Quality Programs and Standards  
Mail Drop E143-03  
Research Triangle Park, North Carolina 27711

Dear Ms. Spells:

The Western States Air Resources (WESTAR) Council, an association of 15 western state air quality managers, appreciates the opportunity to provide comments and recommendations on revisions to the 1998 Interim Air Quality Policy on Wildland and Prescribed Fires. Wildfires and forest fires profoundly impact air quality in the west. We commend EPA's effort to develop a policy that will address the air quality impacts from fires, and offer the enclosed recommendations to assist you in this important initiative.

These recommendations are based on the collective experience of states that have been dealing with fires for many years, and at many levels -- from high-level policy initiatives to fighting fires on the front-line. In short, fires will happen and it is our shared responsibility to mitigate the impacts from these fires on public health and the environment. Our recommendations include steps that can be taken to do just that.

If you have any questions or comments, please contact Dan Johnson, WESTAR's Executive Director at 206-254-9145.

Sincerely,

A handwritten signature in black ink, which appears to read "Brian Gustafson". The signature is written in a cursive style and is followed by a horizontal line that extends to the right.

Brian Gustafson, President  
Western States Air Resources Council

CC: Robin Dunkins, OAQPS Group Leader  
Peter Tsigotis, Division Director

Update to the 1998 Interim Air Quality Policy on Wildland and Prescribed Fires  
WESTAR Comments to EPA  
12/7/07

## I. Background

The 1998 Interim Air Quality Policy on Wildland and Prescribed Fires was developed to address the air quality impacts likely to result from the increased use of managed fires to correct unhealthy conditions in forest and wildland areas. Most scientists agree that recent and projected global climate trends are likely to exacerbate the problem of unhealthy forests; therefore, the need to use fire management as a tool to address unhealthy forests will continue for the foreseeable future. A policy to govern how air quality considerations will be used to guide fire management decisions is now more important than ever.

The interim wildland fire policy needs to be updated to be consistent with the final rule, "Treatment of Data Influenced by Exceptional Events," adopted by EPA on March 27, 2007 (Exceptional Events Rule). EPA has indicated that in the future, they expect to broaden this policy to include other forms of burning (e.g. agricultural burning). While WESTAR's recommendations are specific to wildland and forest burning, we believe that the principles used in the development of these recommendations, and the recommendations themselves can serve as a basis for the future development of a broader Fire Policy that addresses all forms of burning.

## II. Guiding Principles

WESTAR's recommended changes to the Interim Air Quality Policy on Wildland and Prescribed Fires were developed based on the following core principles:

1. Public health protection and safety are the most important considerations in all fire management decisions.
2. The public must be informed and steps must be taken to safeguard the public whenever air quality impacts are expected to result from fires.
3. Air quality impacts on public health and welfare must be evaluated as a primary consideration when deciding on the utilization of fire or alternatives to fire for land management.
4. Collaboration between air quality managers, land managers and the public plays an essential role in making good fire management decisions and the means by which this collaboration occurs should be clearly articulated.
5. The extent to which fires are managed consistent with this policy should be an important consideration in EPA's decision to concur with state data flagged in accordance with the Exceptional Events Rule.

The first principle expresses a basic value that is common to state air quality management agencies as well as EPA – an acknowledgment of our shared obligation to protect against adverse impact from air pollution. WESTAR’s recommendations are based on these core principles, and we trust that EPA’s pending update to the Interim Wildland Fire Policy will be based on these or similar principles.

### III. Recommendations

#### **A. Authority**

Fire management practices can significantly mitigate the impact of smoke on public health and welfare. Air quality management agencies must have the authority to specify the conditions under which planned fires may be ignited, and must have authority to influence management decisions on unplanned fires that have the potential to significantly impact public health. The Fire Policy should convey EPA’s expectation that all fires will be subject to state/local air quality management requirements.

Although this revision to the Interim Air Quality Policy on Wildland and Prescribed Fires is motivated by the recent revision to the Exceptional Events Rule, EPA’s updated Fire Policy will apply broadly to the management of fires, not just to the designation of natural and exceptional events. WESTAR recommends that the Fire Policy apply to all regulated pollutants, and not exclusively to particulates and ozone. If a pollutant is regulated, it is presumed to be injurious to public health or welfare. A smoke management program should address each regulated pollutant to the extent that it is a component of smoke.

#### **B. Inter-Jurisdictional Coordination**

Smoke impacts do not respect jurisdictional boundaries. Coordination between air quality management agencies is critical to ensure that air pollution from one jurisdiction does not adversely impact public health or welfare in another. In accordance with Section 110(a)(2) of the Clean Air Act, if a state believes air quality has been or could be adversely affected by smoke intrusion from an upwind jurisdiction, the state should notify the upwind jurisdiction of their concern and initiate coordination. As discussed below in Section D.2.h, the upwind jurisdiction must coordinate with the potentially impacted state to provide adequate documentation related to events of concern and potential impacts on air quality, determine whether additional actions or protections are needed to avoid impacts in the future, and implement any corrective actions identified.

#### **C. Basic Smoke Management Practices**

The Exceptional Events Rule allows states without a Smoke Management Plan to flag exceptional events data impacted by fires if the burner followed ‘basic smoke management practices.’ EPA did not define ‘basic smoke management practices’ in the Exceptional Events Rule, but has stated its intent to do so in the Fire Policy. We recommend that EPA’s definition of ‘basic smoke management practices’ be comprehensive. To that end, WESTAR has developed a

list of practices that should be followed to mitigate the impact of smoke on public health. We recognize that in states without a smoke management program, few burns will fully meet the criteria. Because a primary principle of the Fire Policy is to protect public health, these practices are appropriate for all burns. We believe that where burning operations are so large, or where burns operations are conducted in or near sensitive areas such that the fire may cause or has the potential to cause an exceedance of a federal air quality standard, all of the smoke management practices listed below should be implemented.

Both pre-planning and professional implementation of a burn are needed to minimize smoke impacts from scheduled fires, including appropriate response to unforeseen eventualities. To that end, each of the following steps is necessary and together, these steps would constitute ‘basic smoke management practices’:

- The burner evaluates alternatives to burning, and uses them where relevant.
- The burner uses emission reduction techniques. Examples include limiting the amount of burning done during any one time, selecting fuel preparation methods that minimize dirt and moisture content, and promoting fuel configurations that create an optimal air-to-fuel ratio.
- The burner defines or otherwise prepares contingency measures in case of excessive smoke impacts. Adequate resources are on site to implement the contingency measures. If relevant, the burner implements the contingency measures and notifies the public and air regulatory agencies of air quality problems.
- The burner monitors smoke to the extent that the burner knows the plume’s impact on receptors.
- The burner does not ignite the burn on a day with a burn ban or unfavorable meteorology.
- The burner provides adequate notice to potentially affected publics and agencies, and resolves any individual’s smoke-related health concerns.
- The burners of multiple burns coordinate the ignitions of the burns such that the cumulative impact of multiple burns is mitigated.

## **D. Elements of a Smoke Management Program**

### **1. Minimum Smoke Management Criteria for Unscheduled Fires**

In order to protect public health, air regulators have a responsibility to seek all reasonable opportunities to minimize health impacts from smoke. Smoke from wildfires and other unscheduled fires can cause far more significant health impacts than smoke from properly conducted prescribed fires. As one manifestation of the importance to public health of smoke from unscheduled fires, the majority of requests to flag NAAQS exceedance data for intrastate smoke transport are due to unscheduled ignitions, not to prescribed fires.

While pollution from unscheduled fires is generally uncontrollable, there are opportunities to mitigate smoke impacts in the course of managing unscheduled fires. These opportunities

increasingly arise as fire management authorities weigh considerations such as cost, ecological consequences, and the effective use of limited firefighting resources in addition to the historic concerns of what is considered “safe and possible.” In taking advantage of these opportunities, and because air quality management agencies have the primary responsibility to manage air quality to protect public health, a smoke management program should clearly articulate the manner in which the state air agency will be given the opportunity to:

- require that smoke impacts be considered along with other values at risk,
- participate in real-time planning that is relevant to the impact of smoke, and
- influence the fire’s management in ways that appropriately minimize air quality impacts.

For unscheduled fires that are designated as “wanted” (e.g., for ecosystem health), a smoke management program should verify that the burner has addressed smoke thoroughly in each stage of the Wildland Fire Implementation Plan (WFIP) or other fire-specific planning documents

## 2. Minimum Smoke Management Criteria for Scheduled Fires

The Fire Emissions Joint Forum (FEJF), one of several working groups of the Western Regional Air Partnership (WRAP), developed a number of technical and policy recommendations related to smoke management programs and emission reductions of smoke from wildland fire. Although these recommendations were adopted by the WRAP to address regional haze requirements, they are applicable to smoke management programs and practices in general. The FEJF recommendations were developed by consensus among participants, including representatives from federal, state, and tribal air and land management agencies; private landowners, including agricultural interests; industry; environmental advocacy groups; and academia. Although not mandatory, it is expected that these recommendations will have broad acceptance and be incorporated by states, tribes and land managers into their respective programs.

The FEJF prepared a document entitled ‘Wildland Fire: Elements of a Basic Smoke Management Program’ that discusses in detail each of the basic components of a certifiable smoke management program as discussed in the Interim Air Quality Policy on Wildland and Prescribed Fires. WESTAR recommends using the FEJF document<sup>1</sup> as the basis for defining a ‘basic smoke management program’ in the Fire Policy. Based on our experience implementing smoke management programs, WESTAR recommends adding an eighth element to the seven recommended by the FEJF related to coordination and cumulative impacts.

### Elements of a Basic Smoke Program

- 1) Authorization to burn,
- 2) Minimizing air pollutant emissions,
- 3) Smoke management components of burn plans (including dispersion and monitoring),
- 4) Public education and awareness,

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<sup>1</sup> “Wildland Fire: Elements of a Basic Smoke Management Program”, July 10, 2001 Draft, prepared by the Fire Emissions Joint Forum of the Western Regional Air Partnership. [Click here](#) to access the complete document.

- 5) Surveillance and enforcement,
- 6) Program evaluation, and
- 7) Optional air quality protection.
- 8) Coordination to Address Potential Cumulative Impacts.

With respect to element 8 related to coordination, smoke can be regulated by multiple authorities within a state and between states. Coordination needs to occur both inter-jurisdictionally (between states) and within states.

In conclusion, WESTAR recommends using FEJF's discussion of smoke management to describe the core elements of a basic smoke management program. Because the document is aimed at western states, its examples may need to be expanded to ensure national relevance.

### **E. Certification of Smoke Management Programs**

In the preamble to the Exceptional Events rule<sup>2</sup>, States are encouraged to certify to EPA that their smoke management programs include the elements recommended above as a way to expedite EPA's concurrence on a data flag. When a state certifies a smoke management program, EPA should respond by acknowledging receipt and consulting with the state on the adequacy of the program. Adequacy should be based on the minimum content of smoke management plans as recommended in III.D above. States should periodically review their smoke management program to ensure that it is up-to-date and adequately protects public health.

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<sup>2</sup> Section IV.E.6 of the preamble discusses State certification of smoke management programs in the context of flagging data affected by emissions from prescribed fires.

Appendix A  
Out-of-Date Provisions of the Current Policy

1. References to Natural Events Policy	
Pg. 3, top sentence and footnote	References interface between NEP and fire policy
Pg. 24, VII. A. 1. 3 <sup>rd</sup> paragraph	Discussion of how NEP works; intention to revise the NEP
2. References to annual PM10 and missing ozone, regional haze references	
Pg. 3, 3 <sup>rd</sup> paragraph	Add regional haze; remove ref. to annual PM10
Pg. 3, 4 <sup>th</sup> paragraph	Expand discussion to include other pollutants
Pg 5, III. C.	Update discussion to reflect most recent PM promulgation
	Add other pollutants to section (esp. ozone)
Pg. 6, III. D. 2 <sup>nd</sup> paragraph	Update discussion to reflect regional haze rule
Pg. 6, III. D. 4 <sup>th</sup> & 5 <sup>th</sup> paragraphs	Update or delete
Pg. 8, top & 2 <sup>nd</sup> paragraphs, bottom bullet	References only PM violations; expand to other pollutants
Pg. 17, VI. 1 <sup>st</sup> paragraph	2 references to annual PM10
Pg. 23, bottom paragraph	Replace “PM” with “pollutant”
Pg. 24, VII. A. opening paragraph	Replace “PM” with “pollutant”; refers to annual PM NAAQS
Pg. 24, VII. A. 1.	References NEP and PM10
Pg. 24-25, VII. A. 2.	Replace “PM” with “pollutant” in each of 3 paragraphs in this section
Pg. 25, VII. A. 2. 1 <sup>st</sup> paragraph	Reference to annual PM10
Pg. 26, VII. B. 1. whole section and footnote	Expand to reflect other pollutants; several annual PM10 references
Pg. 26, VII. B. 2.	Replace “PM” with “pollutant”
Pg. 27, VII. B. 2	Remove “PM2.5 or PM10”; remove “for PM and visibility”
Pg. 31, IX. C. 1 <sup>st</sup> paragraph	Update discussion of increments
Pg. 32, IX, C. 3 <sup>rd</sup> paragraph	Does this paragraph need to be expanded beyond PM?
Pg. 33, Definitions	“Air quality” definition limited to PM for this policy
Pg. 37 Definitions	“Violation of the PM NAAQS” – expand to other pollutants
3. References to Smoke Management Plan incentives and requirements	
Pg. 1, bottom paragraph	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 7 bottom paragraph through Pg.9	Discussion of incentives for SMP’s – need to expand to include basic smoke management practices

Pg. 18, VI. Last paragraph	Reference to letter certifying basic program
Pg. 22, VI. E.	“Fire managers must follow the burn plan”
Pg. 24, VII. A.	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 25, VII. A. 2. opening paragraph	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 25, VII. A. 2. last paragraph	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 26, VII. B. 1. 1 <sup>st</sup> and last paragraph	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 26, VII. B. 2.	Expand from “SMP” to “SMP or basic smoke management practices”
Pg. 30, IX. A. last paragraph	Does EPA intend to keep SMP requirement for conformity?
<b>4. Other outdated references</b>	
Pg. 2, last paragraph in section I	Discussion of previous approach to policy development
Section III. D., last 2 paragraphs	Refers to old visibility requirements, white paper
Pg. 20, VI. B. last paragraph	Refers to old white paper
Pg. 22, VI. C. 4. last paragraph	Refers to old white paper
Pg. 29, last 2 paragraphs of VIII.	Refers to old survey and white paper
Pg. 30-31, IX. B.	Refers to old visibility rule requirements and old white paper
Pg. 31, IX, C.	Refers to 1997 PM NAAQS
Pg. 37, Violation of the PM NAAQS	Update to reflect most recent NAAQS for all relevant pollutants
Pg. 38, Wildland Fire Situation Analysis	Is this still up to date?