



# Exceptional Events Updates

US EPA-OAR-OAQPS  
WESTAR Spring Meeting  
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# Overview of Presentation



- Relevant Background
- Outreach to assess lessons learned and best practices for Exceptional Events demonstrations to date
- Update on Exceptional Events Rule Revisions and Guidance (including communication plan and schedule)
- Schedule and Next Steps
- Arizona's EE Process Improvement Analysis (ADEQ)
- Discussion of key questions from EPA



# Relevant Background

- States continue to express concerns about Exceptional Events Demonstrations. Concerns include:
  - Resources needed for Exceptional Events demonstrations
  - Lengthy and inconsistent reviews of Exceptional Events demonstrations
  - Lack of and/or inconsistent communication concerning treatment and processing of Exceptional Events demonstrations
- Ongoing discussions with EPA Regions and states to determine what works well and what could work better to address concerns for Exceptional Events demonstrations
  - Are there opportunities to further standardize certain aspects of Exceptional Events demonstrations?
  - How can early and frequent coordination and communication, templates and other process aids be used to improve process efficiency?
  - Are there other process improvements or technical tools EPA and states should consider?
- Technical tools and process aids identified as best practices and lessons learned will be used to complement the Exceptional Events Rule revisions and Wildfire Ozone guidance
- See Appendix for additional background information

# Outreach to Assess Lessons Learned and Best Practices for EE Demonstrations



- Outreach Goals and Methodology:
  - Goal: To better understand Exceptional Events-related concerns and best practices from air agencies, for EPA to learn and provide standardized and more efficient ways for states to address Exceptional Events demonstrations
  - Qualitative review based on standard set of questions (see Appendix for list of questions)
  - Talked in general with states and regional offices
- Results of outreach revealed best practices already being used, areas for improvement and requests to further clarify policy and improve tools



# Opportunities in Three Key Areas

- Best practices for communication/collaboration between EPA and air agencies
  - Systematic communications process between air agencies and the reviewing EPA Regional office for exceptional events before, during and after exceptional events package development, submittal and review
- Recommendations to clarify and simplify demonstrations
- Recommendations for tools and consistency checks
  - Tools and resources that will enhance collaboration among regions and states and result in consistency in interpreting and applying Exceptional Events Rule elements and level of effort

# Best Practices for Communication/Collaboration Between EPA and Air Agencies



- Communicate often
  - Communicate before, during and after development and submissions of exceptional event packages
- During Initial meetings
  - Spend time preparing for the initial meetings by prescreening flagged events to ensure they are of regulatory significance and are likely to become Exceptional Events submissions, using shared criteria between EPA and air agencies
  - Obtain clear understanding of regulatory significance, number and type of submissions from air agencies & EPA priority for action
  - Discuss the critical path aspect of the Exceptional Events submission before generating lots of maps, data and tables
  - Obtain clear understanding on EPA timelines for action and ways to track a submission
- Communicate throughout the development of Exceptional Events packages, sharing previous successful products for similar events, sharing templates for data and language, and review of drafts
- Communicate after submission and EPA actions to learn EPA's decision criteria for that action and aspects of the project that worked and those that could be improved

# Recommendations to Clarify and Simplify Demonstrations



- Through Exceptional Events Rule Revisions and Guidance:
  - Clarify “not reasonably controllable or preventable”
  - Address “but for” concerns
  - Flagging of data – duration of flags, descriptions, schedule and events close to regulatory submissions
  - Clarify the need and utility of historical fluctuations assessments
  - Provide boiler plates for “obvious” natural exceptional events; provide ways to efficiently demonstrate for recurring natural events
  - Administrative changes – delegation of authority to EPA Regional Air Director to act on packages, clarify use of Letter of Intent, specify timelines for EPA review of submitted packages
  - Ozone – provide guidance, standard and level of effort on packages, provisions for flagging values below the NAAQS, better tools for “but for” and “clear causal relationship,” and regional effort for catastrophic events over large scales

# Recommendations for Tools and Consistency Checks



- Tools and resources that enhance collaboration:
  - Consistent interpretation of the rule and guidance for the set of events in discussion
  - Consistent approach to dust controls in attainment/unclassifiable areas;
  - Consistent approach to 'not reasonably controllable or preventable' in attainment and designated planning areas
  - Consistent understanding of planning area requirements and existing state rules as it intersects with the Exceptional Events Rule
- Develop, share and adapt templates that simplify organization of document to support EPA decision and action
- Provide demonstration outlines for wildfire ozone events including order in which to address elements, and type of information to support the conclusion
- Provide clarity on the types of technical tools that are applicable for each type of event

# Current Thinking for Proposed Exceptional Events Rule Revisions



# Current Thinking on Wildfire Ozone Guidance



- Wildfire Ozone Guidance: Tiered/streamlined demonstration approach for large and/or close fires that affect high ozone concentrations
  - No requirement to quantify fire impact on ozone concentration
  - Template(s) for demonstrations
  
- Demonstrations would include 3 elements to address clear causal/but for:
  1. Fire characteristics and relationship to the affected monitor
    - Fire emissions for the day(s)
    - Distance from the centroid of the fire to the affected monitor
    - High ozone at the monitor
    - Guidance would identify what combination of factors “passes” to show sufficient causal connection
  
  2. Coincident back trajectories between fire and affected monitor
  
  3. At least one type of additional evidence that smoke from the fire reached the affected monitor
    - Visible satellite maps
    - MODIS data and other satellite data of aerosol optical depth, NO<sub>2</sub>
    - High CO or PM
    - Regional ozone concentration maps
    - Regional PM<sub>2.5</sub> concentration maps
    - Regional PM<sub>2.5</sub> species maps/plots
    - Levoglucosan in PM
    - Unusual concentrations of potassium.
    - Unusual diurnal profile of concentrations

# EPA's Communication Plan for the Exceptional Events Rule



- Continued internal EPA coordination, including consistency checks using internal EPA Exceptional Events Work Group
- Continued discussions with state/local/tribal air agencies and other interested stakeholders
- Additional outreach for the new ozone wildfire guidance, before EPA drafts full documents for wider review
- Webinars on content of the NPRM and draft guidance following NPRM and release of draft guidance
- Following final rule and release of new guidance:
  - Internal EPA national consistency workshop
  - Implementation workshop(s) for states, tribes, and other affected stakeholders



# Schedule and Next Steps

- Exceptional Events Rule Revisions and Guidance Development
  - Anticipate proposing the rule revisions in Fall 2015 and promulgating in summer 2016
    - Schedule provides promulgated rule revisions changes in advance of implementation activities (e.g., Governors' recommendations) for any potential new or revised ozone NAAQS
  - Schedule for wildfire ozone exceptional events guidance anticipated to parallel rule revision effort so guidance can reflect preamble/rule concepts
  - Provide additional guidance, as needed, to support Exceptional Events Rule revisions
  - Continued development of Exceptional Events tools (e.g., website, templates, delegations)
    - Web-based quick reference matrix on Exceptional Events website at <http://www.epa.gov/ttn/analysis/exeventsguide.htm>
  - Implement EPA's communication plan
- Exceptional Events Best Practices
  - Continue to seek and incorporate input from EPA regions and states
  - Include best practices as recommendations in guidance, rule or website resources
  - Tools on an EPA website
  - Continual improvement, dissemination, outreach, education
- Other questions/discussion



# Arizona's EE Process Improvement Analysis

Eric Massey



# Roundtable Discussion



# Question 1 – Communications

- How can we have effective conversations/communication about particular demonstrations, before they are submitted and while they are at EPA?
- What can EPA-OAQPS and the Regional Office do to help?
- What can the states do?



## Question 2 – Completeness

- Would it be useful to have a deadline for EPA to make a completeness finding for a submitted demonstration?
  - Should a finding of incompleteness terminate EPA's obligation to review?
  - Should a finding of completeness bar EPA from asking for further information before acting on the demonstration?



# Question 3 – Multi-State/ Multi-Jurisdiction Events

- What rule changes, guidance or tools could EPA provide (short of preparing demonstrations) to facilitate the development of multi-state / multi-jurisdictional demonstrations?
  - Example 1: Event occurs in one state but affects monitor(s) in other state(s)
  - Example 2: Event occurs on state lands but affect a federal/tribal operated monitor



# Appendix

# Relevant Background



- March 2007 – Exceptional Event Rule promulgated
- May 2013 - EPA finalized interim exceptional events implementation guidance
  - Memorandum to Regional Air Division Directors with 2 attachments
  - Attachment 1 - Frequently Asked Questions document
  - Attachment 2 - High Winds Guidance document
- May 2013 – EPA announced intent to revise the Exceptional Events Rule and develop wildfire/ozone implementation guidance
  - Anticipated schedule – Fall 2015/promulgation Summer 2016
- August thru November 2013 – Stakeholder outreach and listening sessions related to rule revisions
- December 2014 – Exceptional events website redesign and development/publication of exceptional events criteria/pollutant matrix with linked examples
- Mid-2014 thru early 2015 – Focused best practices sessions with regional offices and states

# Relevant Background



- EPA did not have exceptional events implementation guidance until 2013.
  - As a result, air agencies had limited guidance re: the level of documentation and analyses to support event claims and in many cases, states submitted unnecessary documentation.
  - States also submitted documentation for claims that never had any potential regulatory significance, or that might have had regulatory significance depending on later years' air quality, but ultimately were shown not to have significance.
  - The situation has improved since our 2013 guidance, but problems remain because we are still operating within the constraints of the 2007 Exceptional Events Rule.
- Regions with exceptional events backlogs have prioritized these submittals, focusing on those that affect a near-term regulatory decision and often formally or informally deferring those that either do not affect a regulatory decision or have “aged-out” (i.e., the affected data years are no longer being used for regulatory purposes).
  - Feedback from air agencies indicates that there are opportunities for improvement for effectively communicating the priority and status of EE demonstrations and what is needed for approvable demonstrations. Consistency also remains a challenge.
- Since 2010, all EPA regions have participated in a national workgroup to improve consistency. Regions share demonstrations and experiences, but the demonstration review and decision making process still varies somewhat from region to region.
- The vast majority of the exceptional event demonstrations submitted since promulgation of the 2007 Exceptional Events Rule focus on PM and high wind events, but states have also submitted demonstrations for wildfires affecting both ozone and PM concentrations, stratospheric ozone intrusion, volcanic activity, fireworks, and prescribed rangeland burning.

# Questions for Best Practices/Lessons Learned Discussions



- In terms of the process, what has worked well and what could be improved to make the EE demonstration and review process more efficient?
- What process aids have you developed or used to assist with the preparation and submission of EE demonstrations?
- What technical tools are you using to support EE demonstrations?
- Do you use a notice of intent to file an EE demonstration, a template or a checklist such as provided in EPA's EE High Wind Event guidance? If not, why not and what suggestions do you have to make these types of process aids more useful?
- How are the AQS EE flags used by your agency? How useful are the EE rule's general schedule for data flagging and the additional data flag options?
- How do you track, manage and communicate with EPA about the EE demonstrations you intend to or actually do submit? How does your region communicate with you about EE demonstrations that you have submitted and do you have suggestions for improvement?
- What other process aids or technical tools do you think EPA could develop or provide to help standardize the EE demonstration process and reduce inefficiency for use by all states for different types of events (as appropriate).
- Any other ideas you think EPA should consider regarding EE demonstrations that would help you and EPA process the demonstrations more efficiently?



# Recent *Federal Register* Notices of Potential Interest

- Ozone NAAQS NPRM (December 17, 2014)
- Ozone SIP Requirements Final Rule (March 6, 2015)
- PM<sub>2.5</sub> SIP Requirements NPRM (Signed March 10, 2015)
- Key points in these notices:
  - Wildfire challenges and consequences
  - Need for and benefits of using prescribed fire to manage wildfire fuel loads
  - RACM concept:
    - Prescribed fire as potential RACM to reduce wildfire emissions
    - BSMP as potential RACM to reduce prescribed fire emissions
  - Ideas about attainment plan budgets for fire emissions
  - “Depending on the nature and scope of interstate emission events affecting downwind air quality, the EPA may be able to assist states in developing approvable exceptional events demonstrations.”