OAQPS Air Program Update: WESTAR Fall Meeting

September 29, 2010

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Air Quality Policy Division
## Current Schedule for Ongoing NAAQS Reviews (Sept 2010)

<table>
<thead>
<tr>
<th>MILESTONE</th>
<th>POLLUTANT</th>
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<tbody>
<tr>
<td></td>
<td>NO₂ Primary</td>
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**NOTE:**
Underlined dates indicate court-ordered or settlement agreement deadlines

# Anticipated NAAQS Implementation Milestones

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NAAQS Promulgation</th>
<th>Designations Effective (approximate date)</th>
<th>110(a) SIPs Due (3 yrs after NAAQS promulgation)</th>
<th>Attainment Demonstration Due</th>
<th>Attainment Date</th>
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<tbody>
<tr>
<td>NO$_2$ (primary)</td>
<td>Jan 2010</td>
<td>Feb 2012</td>
<td>Jan 2013</td>
<td>Aug 2013</td>
<td>Feb 2017</td>
</tr>
<tr>
<td>SO$_2$ (primary)</td>
<td>June 2010</td>
<td>July 2012</td>
<td>June 2013</td>
<td>Jan 2014</td>
<td>July 2017</td>
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<tr>
<td>NO$_2$/SO$_2$ Secondary</td>
<td>Mar 2012</td>
<td>Apr 2014</td>
<td>Mar 2015</td>
<td>Oct 2015</td>
<td>n/a</td>
</tr>
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# SO₂ Designations Milestones

<table>
<thead>
<tr>
<th>Action</th>
<th>Date</th>
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<tbody>
<tr>
<td>Final NAAQS signed</td>
<td>June 2, 2010</td>
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<tr>
<td>Governors’ recommendations due to EPA</td>
<td>June 3, 2011</td>
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<tr>
<td>EPA sends out 120-day letter to all States/Tribes and notifies public via FR</td>
<td>Feb. 4, 2012</td>
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<tr>
<td>Deadline for States/Tribes to respond to EPA's modifications</td>
<td>April 4, 2012</td>
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<tr>
<td>Final designations</td>
<td>June 3, 2012</td>
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Designations strategy outlined in final \( \text{SO}_2 \) NAAQS rule:

- An area that has both monitoring data and appropriate modeling results showing no violations would be designated as “Attainment.”

- Those with monitored violations will be designated “Nonattainment” and must develop attainment plan in 18 months (approx. Jan 2014) showing compliance in 5 years (approx. Aug 2017).

- All others will be designated “Unclassifiable” and must ensure attainment/maintenance under sec. 110(a)(1) plan due June 2013. Would include modeling of significant \( \text{SO}_2 \) sources and necessary emissions controls demonstrating attainment/maintenance by Aug. 2017.
Counties With Monitors Currently Violating
the Revised Primary 1-Hour Sulfur Dioxide (SO2) Standard of 75 ppb
(Based on 2007 – 2009 Air Quality Data)

EPA will not designate areas based on these data but will use the currently available air quality data at the time designations decisions are made, most likely 2009-2011 data.

59 of 249 monitored counties violate the standard

Notes:
1. Data are shown for monitors that met the following criteria: 75% of the day has valid hourly values, 75% of the days in a quarter are valid, and all 4 quarters for each of the three years are valid as well as other applicable data handling conventions included in 40CFR50 Appendix T.
Areas in Green with less than 10 tpy Total SO$_2$ Emissions

Key:
1,000-100,000 tpy Dark Pink
275-1,000 tpy
125-275 tpy
55-125 tpy
25-55 tpy
10-25 tpy Light Pink
0-10 tpy Green

- Small white outlined squares = 36x36km grid cells
- The red circles represent a 25km/15mi radius around all facilities (points) >25 tpy.
“Attainment” Determinations

• State input: Can EPA provide relief to states from 110(a)(1) modeling requirements by determining certain areas are “Attainment” in the designations process?

• Can criteria be developed sufficiently in advance of the deadline for receiving state recommendations (June 2011) to guide identifying areas where violations are not likely?
  • e.g. Areas with no requirements for new monitoring and no, or minimal, emissions sources.
  • Emissions thresholds? Source types/locations? Others?

• Alternatively, this guidance would be provided after designations to assist areas designated as “Unclassifiable” to determine if modeling is required/needed in 110(a)(1) plan.
EER Implementation is Challenging

- The EER is the mechanism by which air quality data can be excluded from regulatory decisions and actions
  - Affects design value calculations, NAAQS designation status, and State Implementation Plan development.

- Final rule text and preamble provide room for interpretation
  - “Clear causal relationship” between event and monitored concentration
  - Event associated with a concentration “in excess of normal historical fluctuations including background”
  - Not reasonably controllable or preventable = “reasonable controls”
  - Exceedance would not have occurred “but for” the event
  - Relationship between natural events and anthropogenic activities – both can contribute to an exceedance

- Exceptional events are unique and varied
  - Difficult to provide general guidance
  - Difficult to determine how much evidence/technical analysis for demonstrations is enough
Stakeholder Input on EER

• Rule Changes are Necessary: EER language is vague and interpretive, and includes language beyond statutory requirements
  – EER language requiring “event concentrations to be in excess of normal historical fluctuations” and a demonstration that “there would not have been an exceedance or violation but for the event” are additional qualifiers that:
    • Are not in the authorizing legislation.
    • Are flawed provisions added by EPA that should be removed.

• Guidance is Needed: If EPA elects to make rule changes, guidance will be needed as an interim measure. If EPA chooses not to pursue rule changes, implementing guidance is necessary.
  – Guidance should recognize the limited resources of State/Local/Tribal agencies and clearly articulate the minimum acceptable demonstration requirements.
  – Establish a viable “but for” test for high wind and wildfire-related ozone events.

• Process Changes are Warranted
  – Collaboration needed throughout the demonstration submittal and review process.
  – Set specified time limit for demonstration review and response.
Overview of EPA EER Activities

• EPA Exceptional Events Work Group (EE WG) identifying, assessing, and prioritizing the challenges to EER implementation
  – Considering formal and informal input from States / Tribes
  – Considering experiences in reviewing State / Tribe – submitted EE documentation
  – Addressing priority issues raised by Regions and State Stakeholders

• EE WG prioritized issues and established timeline and action plan for resolution
  – Some by October 2010
  – Some after October 2010

• Anticipated EE WG recommendations to include:
  – Immediate products (e.g., Web site, example demonstrations)
  – Short-term products (e.g., policy memo, process changes, types of analyses that might satisfy EER requirements)
  – Longer-term products (e.g., significant guidance, “beyond historical fluctuations” clarifications, high wind strategy, rulemaking)
EPA Priorities (by October 2010)

• Develop Question & Answer (Q&A) document (Phase 1)
  – Answers some of the more “straightforward” questions raised by States/Local/Tribal agencies (additional questions included in Phase 2 Q&A)
  – Clarify if/when air quality concentrations/data that contribute to an exceedance of a NAAQS can be flagged and considered for exclusion as influenced by exceptional events
    • Case-specific by NAAQS, form of the NAAQS, and measurement approach
    • Clarify interpretation of what is currently allowed under the EER
    • Provide acceptable approaches for showing that the “but for” test is met

• Exceptional Events public Web site with resources for states such as “Best Practices" and examples of previously approved demonstrations
  – Available at: http://www.epa.gov/ttn/analysis/exevents.htm
EPA Priorities (by October 2010)

- Develop High Winds Strategy document
  - EE WG considering three Guiding Principles
    - Focus on exceedances due to sources beyond state/local control
    - It is desirable to have reasonable controls in place to protect public health
    - Tiered approach to determine reasonableness of controls
  - Considering definition of the event as the generation of dust by wind, rather than the wind itself, and a threshold wind speed definition
    - Emphasizes causality and reasonable controls
    - De-emphasizes uniqueness and historical comparisons (“in excess of normal historical fluctuations”)
  - Considering mitigation action plan requirement if events recur or if a portion of the exceedance is from controllable sources
EPA Priorities (after October 2010)

- Develop Fire Events Strategy document
  - Identify technical methods to demonstrate that ozone exceedances would not have occurred “but for” wildfires
  - Examine whether there are clear conditions under which prescribed fires may qualify as exceptional events
  - Be consistent with Fire Policy and timing of ozone designation schedule
- Further examine what controls/plans/work practices could satisfy the requirement for “reasonable” controls under EER
- Develop Q&A document (Phase 2)
  - May include definitions to be addressed by rule change recommendations (e.g., natural event, human activity, high wind event, cultural events, prescribed fire, recurring anthropogenic events)
Fire Policy Status

• Fire Policy intended to fulfill commitment in the Exceptional Events Rule (EER) to revise the *Interim Air Quality Policy on Wildland and Prescribed Fires* to be consistent with the EER and to address agricultural burning.
  – New Fire Policy will supersede the *Interim Policy*.
  – Goal of Policy is to acknowledge fire as a resource management tool and to provide guidance on developing smoke management programs that minimize air quality impacts.

• Draft Fire Policy was submitted for OMB review in February 2010 and withdrawn in May 2010 due to concerns expressed by the federal land managers.
  – EPA currently meeting with Federal Agencies to understand and address their specific concerns.
  – Opportunity for states to share concerns after we complete our discussions with the other Federal Agencies.
  – Policy will then return to OMB for review.
  – Once the OMB review process is complete, the draft policy will be available for a 60-day public review and comment period.
PM$_{2.5}$ NSR & Surrogate Policy

  - Applicability to grandfathered applications was stayed June 2009.
  - SIP-approved programs have until May 2011 to fully adopt PM$_{2.5}$ PSD program.
- February 2010: EPA proposed to end PM$_{10}$ Surrogate Policy for all applications.
  - Does not affect ability to demonstrate surrogacy.
- Final rule scheduled for signature early 2011.
PM$_{2.5}$ Increments/SILs/SMC

• Final rule to be effective 60 days after FR publication
  – SILs and SMC to be immediately effective in Federal PSD program rules
  – Increment analysis requirement effective in 1 year

• States have 21 months to revise PSD SIP to incorporate new increment provisions
  – SILs and SMC are not mandatory program elements
NO$_2$/SO$_2$ Permitting

- Interim SILs/SMC for both 1-hour NO2 and SO2 NAAQS provided in guidance.
  - May be used until EPA establishes by rule; work is underway.
- Reviewing and considering new increments, including possibility that 1-hour increments are not needed.
- We are aware of concerns about complying with 1-hour NO2 NAAQS
  - e.g., OCS projects, emergency equipment
  - Looking at longer-term solutions that may require policy or regulatory approaches
- We are aware of need for AERMOD modification to calculate impacts consistent with new standard forms and to support “cause or contribute to” determinations.
  - We are working on necessary guidance and tools
Air Toxics Regulatory Trends

- 44 court ordered deadlines
- Advance or complete 30-45 standards in FY 2012
- Legal support during development
- Increased research on multi-toxic emissions
Air Toxics Strategy

**Target** priority categories of emission sources

**Reduce** air toxics using a more cost-effective “sector-based” regulatory approach

**Reduce** air toxics through community-based programs

**Improve** data collection and provide better information to the public through monitoring and national assessments (supports Regaining Ground Initiative)

**Provide** tools to help communities and other stakeholders participate in rulemaking.

**Coordinate** compliance and enforcement efforts towards priority sectors and areas of concern
Priority Sectors

Petroleum refining
- Iron & Steel
- Chemical Manufacturing
- Utilities
- Non-utility Boilers
- Oil & Gas
- Portland Cement
- Vehicles

Emissions from all of these sectors disproportionately affect minority communities
Multi-pollutant Rulemaking

- **Common sense coordination**
  - OAR will take advantage of the natural overlap of certain air toxics, criteria pollutant, and GHG rules and coordinate the development and implementation of MACT and NSPS where it makes sense.
  - Many air toxics are also particles or volatile organic compounds (VOC).

- **Coordinating MACT development for specific source categories with other rules can:**
  - reduce rulemaking costs;
  - provide more certainty and lower costs for industry;
  - simplify implementation for states, local, and tribal agencies; and
  - enhance cost-effective approaches.

**Examples**

- **Utilities**
  Utility Strategy will allow a coordinated approach to MACT, NSPS and the Clean Air Transport Rule

- **Cement**
  Coordinating development of the MACT and NSPS. Reducing toxic HCl emissions results in huge reductions in SO2, which will satisfy NSPS.

- **Refineries & Chemical Plants**
  OAR is pursuing a coordinated approach with OECA to reduce multi-pollutant emissions from flares and leaks