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Next Steps on Designating Areas and Implementing the 1-Hour SO₂ Standard

EPA Webinar for
State, Local, and Tribal Air Agencies

February 13, 2013

Overview



- SO₂ strategy paper has been informed by comments received during meetings with stakeholder groups last year
 - Input has been greatly appreciated
- Focus: characterize “current” air quality in areas with largest sources, then use this data for future designations
 - Recognition that existing monitoring network does not adequately characterize maximum 1-hour concentrations across the country
 - Flexibility to provide monitoring or modeling data
- Intend to issue draft guidance and a notice-and-comment rulemaking, so there will be future opportunities to provide input on the concepts discussed this strategy
- Incentive for early reductions to improve public health and avoid nonattainment

Background



- June 2010: SO₂ NAAQS finalized
 - Proposal emphasized expanded monitoring network.
 - Commenters expressed concerns related to costs and other issues
 - Final rule: Fewer monitors required. Preamble: recommended that states should demonstrate attainment statewide in section 110 infrastructure SIPs due in June 2013, through hybrid modeling and monitoring approach

- March 2011: EPA issued draft designations guidance
 - Included guidance re: modeling based on allowable emissions to characterize air quality

- Sept. 2011: EPA issued draft implementation and modeling guidance.
 - Guidance indicated that modeling should be based on allowable emissions (because areas would need to show attainment)
 - Concerns expressed by commenters included:
 - In effect requiring nonattainment SIPs without any nonattainment designation.
 - Section 110 plans would be due before nonattainment SIPs.

- April 2012: McCarthy letter to Environmental Commissioners
 - EPA announced plan to reconsider implementation approach - not expecting section 110 plans to demonstrate attainment.
 - Announced plans to hold stakeholder meetings.

- May-June 2012: EPA issued white paper and held 3 stakeholder meetings
 - Also received many written comments

- July 2012: EPA extended designation deadline by 1 year, to June 2013

- February 2013: Issued 120-day letters to states, for 30 areas with violating monitors
 - Also issued strategy paper on next steps for designations in other parts of the country

Summary of Stakeholder Input



A number of important comments were expressed in the May-June 2012 stakeholder meetings and have informed the updated SO₂ NAAQS implementation strategy. Key themes included:

- Several state air agency and industry representatives supported basing designations on monitoring data only.
- Other states, however, cited concerns about cost of establishing new monitoring sites and supported flexibility to use monitoring or modeling to characterize air quality for the designations process. However, if modeling can be used to characterize air quality for designations, then there was strong sentiment that it should be based on modeling of *actual* emissions (not allowable emissions).
- Environmental groups strongly supported use of modeling to characterize air quality for future designations.
- Many stakeholders supported “threshold” concept to focus implementation on largest emissions sources and/or sources located in areas with higher population.
- States asked for sufficient time to conduct necessary monitoring or modeling, citing large number of sources to be addressed (even with threshold), limited resources, and stringency of 1-hour standard.
- Many stakeholders stated that any new modeling or monitoring requirements should be established through notice-and-comment rulemaking process.

Source Coverage and Thresholds



- Focus on characterizing air quality in areas with largest sources and then use this data for future designations
 - While there are 20,000+ SO₂ sources, about 500 account for 90% of emissions
 - Target coverage: characterize air quality around a number of the largest sources, similar to the number of monitors that would have been included in an expanded SO₂ monitoring network (up to 500)
 - Expected options for future rule: lower tons per year threshold for inclusion if source located in metro area; higher threshold for sources outside metro areas.
 - Example: 2000 tpy sources in metro areas > 1 million population, and 5000 tpy sources outside of these metro areas.
 - Others could include a 3000/10,000 option; a 90% option; others?
- State would have flexibility to characterize air quality for sources below thresholds as well

Characterizing Current Air Quality



- State flexibility to provide monitoring or modeling data on an area-by-area basis to characterize current air quality
 - While monitoring is the common basis for identifying violations in the designations process, there is a precedent for use of modeling in previous SO₂ designations (and other cases)
- Technical assistance documents coming soon
- Key issues
 - Monitoring: guidance on issues such as for identifying location of maximum concentration for monitoring sites
 - Modeling: use actual emissions, since modeling in this situation serves as surrogate for monitoring air quality. Availability of 1-hour emissions data will vary source by source.
 - Draft guidance in April 2013 to be issued for 45-day review; final guidance planned for July 2013

Expected Implementation Timeline



- End 2013: EPA issues proposed rule.
- End 2014: EPA issues final rule.
- Jan. 2016: Air agency identifies sources that will use monitoring; provide modeling protocol for others.
- June 2016: Air agency provides updated monitoring plan
- Jan. 2017
 - New monitoring sites need to be operational by 1/1/17. Rule will include consequences if monitors are not operational by this date.
 - For areas to be modeled, air agency submits modeling analysis and boundary recommendation.
- Dec. 2017: EPA designates new areas based on modeling.*
 - Note: Similar timeframe for designations if final NAAQS rule had included a monitoring-only expanded network (2 years for deployment of new sites, 3 years to collect data, 2 years for designations)
- Early 2020: New monitoring sites have 3 years of data. Air agency submits boundary recommendations.
- Dec. 2020: EPA designates rest of country.*

* State plans due 18 months after designations.

* Attainment date is no later than 5 years after designations.

Incentive for Early Reductions



- Air agencies can avoid nonattainment designation by working with sources to establish enforceable emission limitations showing modeled attainment with the SO₂ NAAQS prior to second round of designations in 2017
 - Permanent source-specific emission limits in SIP or permit; consent decree; etc.
- Can take into consideration emission reduction measures that will be implemented for Mercury and Air Toxics Standard (MATS) and other rules

Questions?



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