

NAAQS AND REGIONAL HAZE IMPLEMENTATION UPDATES

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AAPCA 2016 Spring Business Meeting
Columbia, South Carolina



OVERVIEW

- NAAQS Implementation Updates
 - Fine Particulate Matter (PM_{2.5})
 - Sulfur Dioxide (SO₂)
 - Lead (Pb)
 - Ozone
 - Background Ozone
 - Exceptional Events
- Interstate Transport
- Regional Haze Update
- SIP Reform/Backlog
- Final Action on Startup, Shutdown, and Malfunction (SSM) Policy for SIPs and SIP Call



NAAQS Reviews: Status Update

(as of March 2016)

	Ozone	Lead	Primary NO ₂	Primary SO ₂	Secondary NO ₂ and SO ₂	PM	CO
Last Review Completed (final rule signed)	Mar 2008	Oct 2008	Jan 2010	Jun 2010	Mar 2012	Dec 2012	Aug 2011
Recent or Upcoming Major Milestone(s)¹	<u>August 2014</u> Final REAs Final PA <u>Nov 25, 2014</u> Proposed rule <u>Oct 1, 2015</u> Final rule	<u>May 2014</u> Final PA <u>Dec 2014</u> Proposed decision <u>2016</u> Final decision	<u>May 2015</u> REA Planning Document <u>Jan 2016</u> Final ISA <u>Summer 2016</u> 1 st Draft PA/REA	<u>Jan 2015</u> CASAC review of 1 st Draft ISA <u>Fall/Winter 2016</u> 2 nd Draft ISA REA Planning Document	<u>Oct 2015</u> Draft IRP <u>Spring/Summer 2016</u> Final IRP <u>Fall 2016</u> 1 st Draft ISA REA Planning Document	<u>Spring 2016</u> Draft IRP	TBD ²

Additional information regarding current and previous NAAQS reviews is available at: <http://www.epa.gov/ttn/naaqs/>

¹ IRP – Integrated Review Plan; ISA – Integrated Science Assessment; REA – Risk and Exposure Assessment; PA – Policy Assessment

² TBD = to be determined



Anticipated NAAQS Implementation Milestones

(as of March 2016)

Pollutant	Final NAAQS Date	Designations Effective	Infrastructure SIP Due	Attainment -Plans Due	Attainment Date
PM _{2.5} (2006)	Oct 2006	Dec 2009	Oct 2009	Dec 2014	Dec 2015 (Mod) Dec 2019 (Ser)
Pb (2008)	Oct 2008	Dec 2010-2011	Oct 2011	June 2012-2013	Dec 2015-2016
NO ₂ (2010) (primary)	Jan 2010	Feb 2012	Jan 2013	N/A	N/A
SO ₂ (2010) (primary)	June 2010	Oct 2013 (+3 rounds)	June 2013	April 2015 (2018, 2019, 2022)	Oct 2018 (2021, 2023, 2026)
Ozone (2008)	Mar 2008	July 2012	Mar 2011	Mid 2015-2016	Mid 2015-2032
PM _{2.5} (2012)	Dec 2012	Apr 2015	Dec 2015	Oct 2016 (Mod)	Dec 2021 (Mod) Dec 2025 (Ser)
Ozone (2015)	Oct 2015	Dec 2017	Oct 2018	Dec 2020-2021	2020-2037



1997 and 2006 PM_{2.5} NAAQS Implementation

- EPA continues to implement the PM_{2.5} NAAQS under existing guidance
 - 1992 General Preamble and 1994 Addendum provide EPA's interpretation of subpart 4 requirements for PM₁₀ NAAQS
 - Deadline and Classifications Rule (issued June 2, 2014; litigation ongoing) clarified that all nonattainment areas at the time were Moderate and set a deadline of December 31, 2014, for states to submit revised SIP submissions to meet subpart 4 requirements
- 2006 PM_{2.5} NAAQS Moderate area attainment date was December 31, 2015
 - EPA has statutory duty to make determinations of attainment by the attainment date within 6 months after the attainment date (based on 2013-15 data)
 - Areas that failed to attain by the attainment date will be reclassified to Serious by operation of law and will need to submit a revised SIP within 18 months that includes BACM-level controls
 - EPA continues to work with states with data issues, but EPA anticipates being able to make determinations of attainment for all 2006 areas based on available data
- Center for Biological Diversity, Center for Environmental Health, and Neighbors for Clean Air filed a complaint on October 8, 2015 seeking final action on certain states' 2006 PM_{2.5} NAAQS attainment plans, NNSR plans, and infrastructure SIPs, and/or findings of failure to submit
 - Proposed consent decree would establish dates for EPA to take final action on state submissions and/or for states to make overdue submissions (affects 6 states: AZ, CA, ID, MT, OR, UT)
 - EPA seeking comment on proposed consent decree lodged with Court on March 23, 2016



PM_{2.5} NAAQS Implementation: SIP Requirements NPRM

- EPA proposed rule for SIP requirements that would apply to current and future PM_{2.5} nonattainment areas (published on March 23, 2015, 80 FR 15340)
- Proposal sought comment on all aspects of implementation under subparts 1 and 4, including:
 - Reasonably Available Control Measures (RACM) and Best Available Control Measures (BACM)
 - Reasonable further progress and quantitative milestones
 - Contingency measures
 - Attainment date extension criteria
 - Nonattainment New Source Review requirements
 - Precursor policy
- Comment period closed on May 29, 2015. About 50 substantive comments mostly received from state and local governments, but also industry, agricultural and environmental groups
- Final rule will apply to all areas designated nonattainment for the 1997, 2006 and 2012 PM_{2.5} NAAQS, and any additional areas designated nonattainment for these or future revised PM_{2.5} NAAQS
- Final rule projected for summer 2016



Progress on PM_{2.5} NAAQS Attainment

(as of March 24, 2016)

	1997 PM _{2.5} (2005 Designations)	2006 PM _{2.5} (2009 Designations)	2012 PM _{2.5} (2015 Designations)
Initial Nonattainment Areas	39	32	9
Areas Redesignated to Attainment	31	16	0
Current Nonattainment Areas	7	16	9
Clean Data Determinations	5	7	0
Proposed Redesignations	1	0	0



2010 SO₂ NAAQS Implementation

- EPA revised primary SO₂ standard on June 3, 2010 (75 ppb/1-hour)
- 1-hr SO₂ NAAQS NAA SIP elements guidance issued on April 24, 2014
 - www.epa.gov/airquality/sulfurdioxide/pdfs/20140423guidance.pdf
 - EPA regional offices are working to assist states with SO₂ NA areas in applying this guidance to develop SIPs, redesignation areas, etc.
- Attainment plans for 29 areas currently designated nonattainment were due April 4, 2015
- EPA issued findings of failure to submit (FFS) attainment plans for 16 areas in 11 states, effective April 18, 2016
 - Sanctions may apply if affected states do not submit complete SIPs within certain time periods stipulated under the Clean Air Act
 - Affected states may be subject to Federal Implementation Plans (FIPs) if they do not submit, and the EPA does not approve, SIPs for listed areas within 24 months (April 18, 2018)



Lead NAAQS Implementation Update

- EPA initially designated 22 areas as nonattainment for the 2008 Lead NAAQS:
 - 16 areas were designated nonattainment effective Dec. 31, 2010
 - 6 additional areas were designated nonattainment effective Dec. 31, 2011
- As of April 2016, 21 areas remain in nonattainment:
 - EPA redesignated Bellafontaine, OH from nonattainment to attainment (maintenance) effective 9/26/2014
 - 7 of the remaining areas have Clean Data Determinations:
 - Chicago, IL Belding, MI Eagan, MN Cleveland, OH
 - Delta, OH Lyons, PA Bristol, TN
- The 16 areas had until Dec. 31, 2015 to meet the standard
 - EPA will make determinations of whether the areas met their attainment dates after the certified monitoring data for 2015 are available



2008 Ozone NAAQS Implementation

- Final 2008 Ozone NAAQS SIP Requirements Rule: “Implementation of the 2008 NAAQS for Ozone: State Implementation Plan Requirements” published March 6, 2015 (80 FR 12264)
 - Provides guidance on nearly all aspects of the attainment planning requirements for designated nonattainment areas
 - Revoked the 1997 NAAQS (effective April 6, 2015) and established anti-backsliding requirements
- Key implementation dates for nonattainment areas:
 - Emissions inventories, emissions statement rules and RACT SIPs due July 2014
 - Attainment plans and demonstrations due July 2015 (Moderate) or July 2016 (Serious and above)
 - Marginal area attainment date July 20, 2015 (attainment determined by 2012-2014 air quality data)
 - Moderate area attainment date July 20, 2018 (2015-2017 air quality data)



2008 Ozone NAAQS Implementation: Actions for Marginal Nonattainment Areas

- Marginal area attainment date was July 20, 2015
- On April 11, 2016, EPA finalized several actions for 36 Marginal areas under the 2008 ozone NAAQS:
 - Determinations of attainment by the attainment date for 17 areas
 - One-year extensions of the attainment date for 8 areas
 - Reclassification to Moderate due to failure to attain by the attainment date for 11 areas
 - Moderate area SIPs due January 1, 2017
- Attainment deadline for 8 areas with 1-year extensions is July 20, 2016



Progress on Ozone NAAQS Attainment

(as of March 24, 2016)

	1997 8-hr Ozone (2004 Designations)	2008 Ozone (2012 Designations)
Initial Nonattainment Areas	115	46
Areas Redesignated to Attainment	80 (prior to revocation)	2
Current Nonattainment Areas	35	44
Clean Data Determinations	26	2*
Proposed Redesignations/ Redesignation Substitutes	0	2

* Determinations of attainment by the attainment date proposed for 17 areas on August 27, 2015.



2015 Ozone NAAQS: Current and Upcoming Implementation-Related Rules/Guidance/Activities

- Area designations guidance (including assessing rural transport areas) issued in February 2016
 - <https://www.epa.gov/ozone-designations/ozone-designations-guidance-and-data>
- Proposed rule to update, where necessary, the existing ozone NAAQS implementation regulations targeted for October 2016
 - Nonattainment area classification thresholds
 - State implementation plan (SIP) due dates
 - Anti-backsliding provisions associated with potential revocation of the 2008 NAAQS
- White paper on background ozone issued December 2015; workshop held in February 2016
 - <https://www.epa.gov/ozone-pollution/epa-workshop-background-ozone-february-24-and-25-2016>
- PSD permitting:
 - Final update to Guideline on Air Quality Models (Appendix W to 40 CFR Part 51) (July 2016)
 - Guidance on compliance demonstration tools:
 - Ozone and PM2.5 significant impact levels (SIL)
 - Model emissions rates for precursors (MERPs) (late summer 2016)
- Update to transportation conformity guidance specific to areas that are nonattainment for 2015 NAAQS (Fall 2017)



2015 Ozone NAAQS: Anticipated Timeline for Designations Process

Milestone	Date
The EPA promulgates 2015 Ozone NAAQS rule	October 1, 2015
The EPA issues designations guidance	February 25, 2016
States and tribes submit recommendations for ozone designations to EPA	No later than October 1, 2016
The EPA notifies states and tribes concerning any intended modifications to their recommendations (120-day letters)	No later than June 2, 2017 (120 days prior to final ozone area designations)
The EPA publishes public notice of state and tribal recommendations and the EPA's intended modifications, if any, and initiates 30-day public comment period	On or about June 9, 2017
End of 30-day public comment period	On or about July 10, 2017
States and tribes submit additional information, if any, to respond to the EPA's modification of a recommended designation	No later than August 7, 2017
The EPA promulgates final ozone area designations	No later than October 1, 2017



Background Ozone: Definition / Sources

- U.S. background (USB) is the definition of “background ozone” that is relevant to assessing its role in NAAQS implementation
- USB is defined to be any ozone formed from sources other than U.S. manmade ozone precursor emissions
 - Some states assert that manmade ozone precursor emissions from other states should also be considered background (to the receiving state)
- Sources of USB ozone include ozone formed...
 - naturally in the stratosphere and transported to the surface
 - from precursor emissions from natural sources (wildfires, vegetation, lightning, etc.)
 - from precursor emissions from manmade sources outside the U.S. (e.g., Mexico, China, etc.)



Background Ozone Workshop and Feedback on White Paper

- A theme of the participant feedback was that EPA may be underestimating the role of background ozone and that more study is needed. Questions were raised about the reliability of the modeling used to estimate background levels, the significance of international and interstate transport, and the need for additional data collection
- Some participants observed that the CAA provisions and policy tools available for background-influenced areas do not provide the kind of regulatory relief that air agencies and communities would need to avoid being subject to the CAA's nonattainment provisions
- Some participants made additional suggestions for developing polices for handling background-influenced areas in the implementation process, beyond those described in the white paper
- Some participants asked that EPA prepare additional guidance for states on how to best prepare demonstrations related to the impacts of stratospheric intrusions and international transport
- Comments were also made about the need for streamlining and improving the exceptional events demonstration and review process
- EPA is evaluating these comments and requests



Exceptional Events

- Exceptional Events Rule Revisions and Wildfire Guidance Development
 - November 10, 2015 – sign Notice of Proposed Rulemaking for rule revisions and Notice of Availability for draft guidance
 - November 20, 2015 – publication in Federal Register (80 FR 72840)
 - December 8, 2015 – public hearing in Phoenix, Arizona
 - February 3, 2016 – close of comment period
 - Summer 2016 – sign final rule and issue final guidance document

- Communication and Outreach
 - Summer/Fall 2016
 - Additional draft guidance document(s) available for stakeholder review
 - Revisions to 2013 Interim Exceptional Events Implementation Guidance
 - Continued development of exceptional events tools (e.g., website, templates)
 - Implementation workshop(s)/webinars for states, tribes, and other affected stakeholders following promulgation



Exceptional Events: Comments on Rule

- Environmental community not supportive of majority of proposed revisions
- States/industry generally supportive of streamlining efforts and asked for additional measures to improve efficiency.
 - Restructuring 6 criteria in 2007 Rule to 3 (includes removing “but for”)
 - Presumption that event-related emissions originating outside of jurisdiction are not reasonably controllable or preventable
 - Relying on EPA-approved attainment/maintenance SIPs to satisfy not reasonably controllable or preventable
 - Removing flagging and demonstration submittal deadlines
 - Clarification regarding components of a demonstration package
- States/Industry generally do not support:
 - Allowing Federal Land Managers to submit demonstrations
 - Not relying on infrastructure SIPs to satisfy not reasonably controllable or preventable
 - Using Air Quality Control Region boundaries to define the bounds for an area subject to event recurrence
 - General timelines for EPA response (prefer promulgated timelines)
 - Lack of a formal dispute resolution process



Exceptional Events: Comments on Guidance

- Commenters generally support tiering concept, but believe identified approach is too restrictive
- Commenters do not fully support the Q/D methodology proposed as a key factor for defining a Tier 2 demonstration. Commenters note the difficulty in calculating Q/D and the limitations of identified tools (e.g., SMARTFIRE/BlueSky)
- Commenters ask for prescribed fire guidance



Status of Transport Rule Efforts

- Status of the Cross-State Air Pollution Rule (CSAPR)
 - EPA began implementation of this rule on January 1, 2015. It addresses interstate transport obligations for the 1997 ozone, 1997 PM_{2.5} and 2006 PM_{2.5} NAAQS
 - On July 28, 2015, the D.C. Circuit issued its opinion on the remaining issues raised with respect to CSAPR. While the rule was largely upheld, the budgets for some states were remanded.
- Proposed CSAPR Update Rule to address the 2008 ozone NAAQS
 - EPA proposed the CSAPR Update Rule in November 2015 to address the 2008 ozone NAAQS. The proposal focuses on near-term EGU NO_x reductions achievable by 2017 in the affected states
 - The proposal also addressed the court's remand of the CSAPR Phase 2 NO_x ozone budgets
 - The comment period closed on February 1, 2016
 - EPA plans to finalize this rule in the summer 2016
 - Additional information at <http://www.epa.gov/airtransport/>
- EPA intends to make modeled contribution information available in Fall 2016 for purposes of the 2015 ozone NAAQS



Regional Haze: Status of Actions

- EPA has taken actions to satisfy the Consent Decree, but we have outstanding obligations in a few states (e.g., EGU BART in TX and LA, etc.)
- Litigation lingers in several states – with challenges for:
 - CSAPR reliance for EGU BART
 - FIPs (from states, affected sources, and environmental groups)
 - Disapproved SIPs (by states and affected sources) and approved SIPs (by environmental groups)
 - Actions on non-EGUs – e.g., taconite plants in MN
- Other RH related program issues are being considered and addressed:
 - Options for visibility protection iSIPs
 - July 28, 2015, CSAPR D.C. Circuit opinion and implications on RH SIPs/FIPs



Regional Haze Looking Forward: Planning for the Next Cycle of SIPs

- Next round of comprehensive planning SIPs are due July 31, 2018
- On April 25, 2016, EPA proposed rule amendments to:
 - Provide certain clarification to reflect the Agency's long-standing interpretations of the 1999 Regional Haze rule
 - Shift the due date for these next SIPs to July 2021; will not prevent states from submitting SIPs earlier
 - Change the schedule and process for submitting 5-year Progress Reports
 - Revise aspects of RAVI provisions
- EPA plans to develop guidance for two key aspects of the program:
 - Reasonable Progress (RP) Guidelines – Guidance for evaluating the statutory factors and making decisions on RP controls
 - Visibility Tracking – Tracking visibility progress based on impacts from controllable, anthropogenic emissions instead of all sources
 - Timing – draft guidance in spring 2016
- Outreach:
 - Listening session in RTP with RPOs, states, and tribes in March 2015
 - Conference calls with RPOs, states and Tribes in summer and fall 2015 on options for rule amendments and guidance
 - Informational webinars upon rule proposal and release of draft guidance



SIP Reform/Backlog

- NACAA-ECOS-EPA SIP Reform Workgroup discussed need to clear the SIP backlog and improve SIP processing
- Resulted in a joint commitment to:
 - Set a goal of clearing the current backlog (as of October 1, 2013) by the end of 2017
 - Manage the review of all other SIPs consistent with Clean Air Act deadlines
 - Develop 4-year management plans agreed upon by EPA Regions and states that identify the highest priority SIPs to process and meet the backlog reduction goal
 - Use best practices and tools developed through the PM_{2.5} Full Cycle Analysis Project (FCAP) to facilitate SIP processing
 - Increase transparency of SIP review status and improve EPA's SIP tracking system with fields that could be of assistance to states



SIP Reform/Backlog (Continued)

- Trends in SIP Processing
 - PM_{2.5} Full Cycle Analysis Project is completed; best practices to improve SIP processing being implemented
 - 4-year management plans in place for each state
 - EPA and states making good progress on eliminating the SIPs backlogged as of October 1, 2013
 - EPA and states working together to prioritize SIPs and manage the review of all other SIPs consistent with Clean Air Act deadlines



Response to SSM Petition, Final Policy and SIP Call

- Final action was signed May 22, 2015, in response to a Sierra Club petition for rulemaking concerning SIP provisions for treatment of excess emissions occurring during periods of startup, shutdown and malfunction (SSM)
 - Final notice restates EPA's SSM Policy as it applies to SIPs with one change regarding affirmative defense (AD) provisions
- SIP Call applies to 36 states (45 jurisdictions), the majority of which were named in the original petition
- Deadline for state action to remove provisions from their rules and make corrective SIP submissions is November 22, 2016
- Challenge from multiple parties filed with D.C. Circuit



Questions and Comments

