

NAAQS Update

CIBO Environmental Committee

December 4, 2013

Overview

- NAAQS Implementation Update
- EPA' s Modeling “Matrix”
- Measurement Method & Emission Factor Update
- Other Issues

•Anticipated NAAQS •Implementation Milestones

•(updated September 2013)

Pollutant	Final NAAQS Date (or Projection)	Infrastructure SIP Due	Designations Effective	Attainment Demonstration Due	Attainment Date
PM _{2.5} (2006)	Oct 2006	Oct 2009	Dec 2009	Dec 2012	2015 (Mod) 2019 (Ser)
Pb (2008)	Oct 2008	Oct 2011	Dec 2010/2011	June 2012/2013	Dec 2015/2016
NO ₂ (2010) (primary)	Jan 2010	Jan 2013	Feb 2012	none	none
SO ₂ (2010) (primary)	June 2010	June 2013	Oct 2013 (+2 rounds)	April 2015	Oct 2018
Ozone (2008)	Mar 2008	Mar 2011	July 2012	Mid 2015/2016	2015/2032
PM _{2.5} (2012)	Dec 2012	Dec 2015	Early 2015	Mid 2016	2021 (Mod) 2025 (Ser)
Ozone (current review)	TBD	TBD	TBD	TBD	TBD

•Current Schedule for
 •Ongoing NAAQS Reviews

•(Updated November 14, 2013)

MILESTONE	POLLUTANT						
	Ozone	Lead	NO ₂ Primary	SO ₂ Primary	NO ₂ /SO ₂ Secondary	CO	PM
NPR	TBD	2014	2016	2017	2017	2018	TBD

Ozone Implementation

- EPA is still implementing the 2008 ozone standard (75 ppb)
 - Designations were effective July 2012, but are being litigated; 29 petitions for reconsideration were denied
 - EPA proposed its 2008 ozone implementation rule May 29, 2013; states were split on whether the proposal granted states too much or not enough flexibility; final rule expected Spring 2014
- The revised ozone schedule continues to slip
 - Risk & exposure assessment plus EPA policy recommendations expected around year-end, CASAC review ~March 2014
 - Proposal ~December 2014, final December 2015
 - Wild card: Sierra Club/EarthJustice suit in District Court

SO₂ Implementation

- 2010 standard (75 ppb) nonattainment designations made 8/13—29 n/a areas
- Two more rounds of designations: 2017 (modeling), 2020 (new monitoring)
- Multiple suits (ENGOS & industry/states) for failure to designate remaining areas
 - Industry/states: should have classified more areas as attainment based on monitoring, should have designated other areas as unclassifiable
 - ENGOS: should use Sierra Club modeling to designate more areas nonattainment

PM_{2.5} Implementation

- Annual standard lowered to 12 µg/m³ 12/12
- EPA sunset PM surrogacy policy, arguing that current measurement methods and models were adequate to characterize PM_{2.5} emissions
- DD Circuit Court decisions vacated PM_{2.5} SILs & SMCs, require EPA to regulate PM_{2.5} under Subpart 4 of Title 1
- PM_{2.5} NAAQS SIP requirements rule to be proposed ~Spring 2014; will address PM_{2.5} precursors, RACM requirements, major source thresholds, etc.
- Draft guidance on PM_{2.5} modeling released for comment 3/13, due to be revised/released ~January 2014

EPA's "Matrix"

- Released mid-November in form of a slide deck
- Addresses problems associated with implementing new 1-hour NAAQS (NO₂, SO₂, PM_{2.5}), responses to Court challenges, upcoming rulemakings, and changes to models/model guidelines; most "fixes" address PM_{2.5}
- Does not address measurement method issues, outdated emission factors, or several of the modeling issues raised by industry

EPA's "Matrix"—Short-term Rulemakings

- PM2.5 SILs/SMCs rule will remove SMCs, some SILs text from rules: December 2013
- PM2.5 NAAQS Implementation Rule: Proposal Spring 2014
- PM2.5 SILs Reconsideration Rule: Proposal Spring 2014
 - Will re-establish PM2.5 SILs
 - Will set new SERs for PM2.5 precursors

EPA's "Matrix"—Longer-term Rulemakings

- Revisions to Appendix W, Guidelines on AQ Models: NPRM March 2015 (responds to Sierra Club petition)
 - New analytical techniques to address ozone and PM2.5
 - Updates on individual source & cumulative impact analyses for all new 1-hour standards
 - Update models to incorporate latest science
- Ozone PSD & NSR Rule: coordinate timing with above
 - Establish SIL for ozone
 - Establish SERs for ozone precursors, NOx and VOCs, to determine when PSD and NSR applicability triggered

EPA “Matrix” — Modeling Updates

- Draft guidance on PM2.5 modeling ~1/14: precursor modeling requirements, cumulative impact analyses for NAAQS & increments
- A number of AERMOD fixes (all beta for now):
 - Improved low wind speed options
 - Updated NO2 tier 2 “ambient ratio method”
 - Updated NO2 tier 3 PVMRM approach for dispersion under stable conditions
 - Updates on using “directionally varying monitored background concentrations

Test Methods & Emission Factors

- We have raised a number of issues with EPA:
 - Overstated PM_{2.5} emissions when using M201A due to lack of train blank corrections
 - Overstated PM_{2.5} condensable fraction emissions when using M202 due to inadequate train correction
 - Artifact CPM formation an issue for some sources using M202
 - Absence of validated method for PM_{2.5} sources with entrained moisture
 - Lack of accurate emission factors and/or appropriate estimation techniques for fugitive sources

Other Issues

- Exceptional events rulemaking: EPA plans a proposal in “early 2014”
- The SSM SIP call rule continues to be delayed due to volume of comments received
- EPA is working on a replacement rule for CSAPR, and has reached out to states for help
- EPA continues work on responding to the Regional Haze consent decree; now will begin considering 5-year report addressing RFP and adequacy of BART to meet glide path. EPA beginning work on next round of SIP revisions due in 2018
- Lots of work underway on SIP reform and Title V reform