NAAQS Implementation Updates

AAPCA Fall Meeting
Raleigh, North Carolina
August 27, 2019

Scott Mathias, Acting Director, Air Quality Policy Division
Office of Air Quality Planning and Standards
Overview

• NAAQS Review Update
• Perspective on NAAQS Progress
• EPA Strategic Plan Priority Goals
  • Nonattainment Areas
  • SIP Process Improvements
• NAAQS Implementation Updates
  • Ozone
  • Sulfur Dioxide (SO$_2$)
  • Fine Particulate Matter (PM$_{2.5}$)
  • Lead (Pb)
• Exceptional Events
# NAAQS Review Status

(August 2019)

<table>
<thead>
<tr>
<th>Last Review Completed (final rule signed)</th>
<th>PM¹</th>
<th>Ozone</th>
<th>Secondary (Ecological) NO₂, SO₂, PM²</th>
<th>CO</th>
<th>Lead</th>
<th>Primary NO₂</th>
<th>Primary SO₂</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Recent or Upcoming Major Milestone(s)</th>
<th>Summer/Fall 2019 Draft PA</th>
<th>Fall 2019 Draft ISA and Draft PA³</th>
<th>Early 2020 Proposal</th>
<th>Fall 2019 Final</th>
<th>Timing of next steps is TBD</th>
<th>TDB⁴</th>
<th>TDB</th>
<th>TBD</th>
</tr>
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<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

TBD = To be determined

Additional information regarding current and previous NAAQS reviews is available at: [http://www.epa.gov/ttn/naaqs/](http://www.epa.gov/ttn/naaqs/)

1 Combined primary and secondary (non-ecological effects) review of PM
2 Combined secondary (ecological effects only) review of NO₂, SO₂, and PM
3 IRP – Integrated Review Plan; ISA – Integrated Science Assessment; REA – Risk and Exposure Assessment; PA – Policy Assessment
4 TDB = To be determined
Progress since 1990: Counties Violating 1 or More NAAQS

<table>
<thead>
<tr>
<th>Stds/AQ Data</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990/1990</td>
<td>240</td>
</tr>
<tr>
<td>1990/2018</td>
<td>52</td>
</tr>
<tr>
<td>2018/1990</td>
<td>491*</td>
</tr>
<tr>
<td>2018/2018</td>
<td>176* (203)</td>
</tr>
</tbody>
</table>

* Does not count counties violating only the PM$_{2.5}$ standards which did not exist in 1990. National air quality monitoring for PM$_{2.5}$ began in 1999.
EPA Strategic Plan Foundation

Goal 1: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety.

Goal 2: Rebalance the power between Washington and the states to create tangible environmental results for the American people.

Goal 3: Administer the law as Congress intended, to refocus the Agency on its statutory obligations under the law.
Nonattainment Areas for Non-revoked NAAQS as of October 1, 2017 (166)

EPA Priority Goal: Reduce Number of Nonattainment Areas

• Work with states to prioritize redesignation request submissions.
• Ensure states have necessary rules, guidance, and tools.
• Improve the efficiency and effectiveness of the SIP/TIP process, including EPA’s review process, to maximize timely processing of requested SIP/TIP actions.
• Take federal oversight actions, where necessary.

• For EPA to approve a state’s requests to redesignate a nonattainment area, the request must meet the minimum Clean Air Act requirements, which include:
  • A demonstration that the area has air quality that is attaining the NAAQS;
  • Establishing that pollution reductions are due to implementing permanent and enforceable measures;
  • A 10-year maintenance plan that includes contingency measures to be triggered in the event of a re-violation of the NAAQS; and,
  • Satisfying any other applicable and outstanding attainment planning and emissions control requirements.
Agency Priority Goal: By September 30, 2022, EPA, in close collaboration with states, will reduce the number of nonattainment areas to 101 from a baseline of 166.

Reduce Number of Nonattainment Areas

*Clean air data is a key step to redesignation to attainment, which can occur once an area’s air quality attains the federal standard.
Improving State Implementation Plan Reviews
SIPs Pending EPA Review – 2013 to July 1, 2019

- SIPs Submitted During Preceding FY
- Backlogged Prior to 10/1/13
- Backlogged After 10/1/2013
- Non-backlogged

Oct. 1, 2013: 699
Oct. 1, 2014: 399
Oct. 1, 2015: 297
Oct. 1, 2016: 188
Oct. 1, 2017: 137
Oct. 1, 2018: 122
July 1, 2019: 115

SIPs Submitted:
Oct. 1, 2013: 413
Oct. 1, 2014: 409
Oct. 1, 2015: 273
Oct. 1, 2016: 376
Oct. 1, 2017: 365
Oct. 1, 2018: 375
July 1, 2019: 372
SIP Process Improvements

• Early engagement during SIP development

• Ozone Quick Start Guide

• Upcoming activities:
  • Consider key backlog reduction techniques for the most difficult SIPs including withdrawal and disapproval
  • SIP Lean Guide
  • Update external-facing “SIP streamlining” website
  • Develop internal New Process Standard Operating Procedure
  • Further develop State Plan Electronic Collaboration System (SPeCS)
State Plan Electronic Collaboration System (SPeCS) for SIPs

**Plan Collection Interface**  
*For use by Air Agency staff*  
- Upload SIPs and other submissions electronically to EPA  
- Enables air agency to identify specific requirements addressed in plan  
- State landing page to provide list/status of all past and pending submissions  
- **Rollout: January 2018**

**EPA Plan Review Clearinghouse**  
*For use by EPA*  
- Facilitates concurrent review by multiple EPA offices  
- Tracks SIP submissions and compliance with SIP requirements by state/area  
- Electronic storage and online document searching  
- **Roll out: February 2018**

**Public Dashboard**  
*For use by the public and states*  
- Links to FR notices and final approved plans  
- National and state SIP status information  
- **Rollout: 2019**
SPeCS for SIPs (cont.)

• Since January 2018, states have submitted a total of 414 submissions – 357 official submissions and 57 draft submissions

• Plans for 2019 and Beyond
  • Complete Public Dashboard
  • Develop the Regional Haze Module
  • Develop an Exceptional Events Demonstration Module
  • Integrate SIP Lean Efforts into SPeCS
  • Continuously improve the State Plan Collection Interface and EPA Clearinghouse based on on-going user feedback
Pollutant-Specific Implementation Updates

Ozone, SO$_2$, PM$_{2.5}$, Pb
2015 Ozone NAAQS Implementation Update

- 52 areas initially designated nonattainment:
  - 51 areas (excluding San Antonio) effective August 3, 2018 (83 FR 25776; 6/04/18)
  - San Antonio, Texas area effective September 24, 2018 (83 FR 35136; 7/25/18)
  - Columbus, OH area redesignated to attainment (84 FR 43508; 8/21/19)
  - Initial SIP submittals (emissions inv./statements) due August 3, 2020

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of Areas</th>
<th>Attainment Deadline (years)</th>
<th>Attainment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>5</td>
<td>6</td>
<td>August 3, 2024</td>
</tr>
<tr>
<td>Serious</td>
<td>2</td>
<td>9</td>
<td>August 3, 2027</td>
</tr>
<tr>
<td>Severe-15</td>
<td>2</td>
<td>15</td>
<td>August 3, 2033</td>
</tr>
<tr>
<td>Extreme</td>
<td>2</td>
<td>20</td>
<td>August 3, 2038</td>
</tr>
<tr>
<td>Rural Transport (Marginal)</td>
<td>2</td>
<td>N/A</td>
<td>---</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Sep 24, 2021 for San Antonio, TX area
2015 Ozone NAAQS Implementation Update (cont.)

• Infrastructure SIP update
  • SIPs were due October 1, 2018
  • EPA has received 34 full submittals and 9 partial submittals

• Litigation on 2015 Ozone NAAQS SIP Requirements Rule
  • Final rule published December 6, 2018 (83 FR 62998)
  • Petitioners’ brief filed July 22, 2019:
    • NNSR interprecursor trading
    • RFP requirements: milestone compliance demonstrations
    • RFP requirements: alternative baseline year
    • Early implemented contingency measures
  • EPA’s reply brief due November 1, 2019; oral arguments timing TBD
2015 Ozone NAAQS Interstate Transport

- EPA is actively reviewing submitted 2015 ozone NAAQS transport SIPs
  - received 38 of 56 states/jurisdictions
  - finalized approval action on 2 state SIPs
  - proposed approval on an additional 4 SIPs
- Notice of Intent (NOI) to file mandatory duty deadline suit to make Findings of Failure to Submit outstanding interstate transport SIPs that were due October 1, 2018
2008 Ozone NAAQS Implementation Update

• Moderate area update
  • Moderate area Determinations of Attainment by the Attainment Date (DAAD) published August 23, 2019 (84 FR 44238), effective September 23, 2019
  • DAAD rule establishes new SIP submittal and RACT implementation deadlines for newly-reclassified Serious areas
  • 1-year attainment date extension for Sheboygan County, WI to July 2019
  • Separate related actions for Denver, CO; Phoenix, AZ; Imperial County, CA; and Kern County, CA

• 2008 Ozone NAAQS Interstate Transport
  • CSAPR Update and Closeout: Litigation is pending in the D.C. Circuit; oral arguments scheduled for September 20, 2018
1997 Ozone NAAQS Implementation Update

• The February 2018 *South Coast II* ruling upheld EPA’s general authority to revoke a prior NAAQS with adequate antibacksliding protections (“controls”) but reversed several key antibacksliding approaches for the revoked 1997 ozone NAAQS, including:
  • duty to reclassify areas upon failure to timely attain; and
  • “redesignation substitute” mechanisms to terminate antibacksliding controls
  • 2nd 10-year maintenance plans

• The ruling held that to remove antibacksliding requirements, areas that were designated nonattainment for the 1997 NAAQS at time of revocation needed to meet all redesignation requirements under CAA section 107(d)(3). Recent related proposed approvals include:
  • Houston-Galveston-Brazoria, TX area (84 FR 22093; 5/16/19)
  • Dallas-Fort Worth, TX area (84 FR 29471; 6/24/19)

2010 SO₂ NAAQS Implementation Update

• **Approved attainment plans**: Currently, 15 of the SIPs for the initial 29 round 1 nonattainment areas have been approved. Continuing to review additional submitted plans and HQ is working with Regions and states on potential approvability issues.

• **Mandatory duty deadline lawsuit** on EPA’s failure to make findings of failure to submit (FFS) SO₂ attainment plan SIPs.
  • Suit filed in the U.S. District Court for the Northern District of California on June 14, 2018, and December 17, 2018
  • Covers Round 1 and Round 2 nonattainment areas

• **Interstate transport**: EPA continues to make good progress approving submitting SO₂ interstate transport SIPs and continues to work with states to submit approvable SIPs addressing the good neighbor provision.

### Progress on PM$_{2.5}$ NAAQS Attainment

(as of August 2019)

<table>
<thead>
<tr>
<th></th>
<th>1997 PM$_{2.5}$ (2005 Designations)</th>
<th>2006 PM$_{2.5}$ (2009 Designations)</th>
<th>2012 PM$_{2.5}$ (2015 Designations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Nonattainment Areas</td>
<td>39</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td>Areas Redesignated to Attainment</td>
<td>35</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td><strong>Current Nonattainment Areas</strong></td>
<td>4</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Clean Data Determinations</td>
<td>3</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Attainment Deadlines</td>
<td>Serious 11/2021</td>
<td>Serious 12/2019</td>
<td>Moderate 12/2021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Serious 12/2025</td>
</tr>
</tbody>
</table>
## PM$_{2.5}$ NAAQS Implementation: 2019 Actions

<table>
<thead>
<tr>
<th>DATE</th>
<th>STATE</th>
<th>AREA</th>
<th>NAAQS</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/28/2019</td>
<td>IL</td>
<td>St. Louis</td>
<td>1997</td>
<td>Final Redesignation</td>
</tr>
<tr>
<td>4/10/2019</td>
<td>UT</td>
<td>Provo</td>
<td>2006</td>
<td>Final Clean Data Determination</td>
</tr>
<tr>
<td>4/12/2019</td>
<td>OH</td>
<td>Cleveland</td>
<td>2012</td>
<td>Final Redesignation</td>
</tr>
<tr>
<td>7/16/2019</td>
<td>PA</td>
<td>Lebanon County</td>
<td>2012</td>
<td>Proposed Redesignation</td>
</tr>
<tr>
<td>7/16/2019</td>
<td>PA</td>
<td>Delaware County</td>
<td>2012</td>
<td>Proposed Redesignation</td>
</tr>
</tbody>
</table>

- PM$_{2.5}$ Precursor Demonstration Guidance issued in May 2019
Lead (Pb) NAAQS Implementation Update

• Of the 22 areas designated nonattainment for the 2008 Pb NAAQS, 11 have been redesignated to attainment

• All areas have fulfilled attainment planning requirements

• Current focus:
  • Remaining redesignations
  • Monitor removal issues
Exceptional Events Update

• EPA has concurred on 25 state demonstrations that were submitted since EPA revised the Exceptional Events Rule in September 2016

• We continue developing new guidance documents to help right-size demonstrations and facilitate the exceptional events process – Thank you for feedback on drafts!
  • Stratospheric Ozone Intrusion Guidance – Released November 2018
  • Updated High Wind Dust Event Guidance – Released April 4, 2019
  • Clarification Memo on Data Modification – Released April 4, 2019
  • Prescribed Fire Guidance – Released August 9, 2019

• EPA’s exceptional events webpage provides key resources, including example demonstrations for Ozone and PM, and will continue to be updated as new materials become available
  https://www.epa.gov/air-quality-analysis/treatment-air-quality-data-influenced-exceptional-events
## NAAQS Implementation Milestones (August 2019)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Final NAAQS Signature</th>
<th>Nonattainment Designations Effective</th>
<th>Infrastructure SIP Due</th>
<th>Attainment Plans Due</th>
<th>Attainment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt; (2010) (primary)</td>
<td>Jan 2010</td>
<td>Feb 2012</td>
<td>Jan 2013</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* January 2017 for areas reclassified from Marginal to Moderate. August 2020 for areas reclassified from Moderate to Serious.
** for areas classified from Serious to Extreme
Questions and Comments