

NAAQS, Regional Haze & Permit Program Implementation Updates

AAPCA Fall Meeting
September 29, 2022



Scott Mathias, Director
Air Quality Policy Division
Office of Air Quality Planning
& Standards



Overview

- NAAQS Reviews
- Inflation Reduction Act Grants
- Environmental Justice
- SIP Review Status
- Regional Haze Update
- Interstate Transport Update
- Exceptional Events Update
- NAAQS Implementation
 - Sulfur Dioxide (SO₂)
 - Ozone (O₃)
 - Particulate Matter (PM_{2.5})
 - Startup, Shutdown & Malfunction Policy (SSM)
- Permitting Program Updates





NAAQS Reviews Status (Sept 2022)

	Lead	Ozone	PM ¹	Secondary (Ecological) NO ₂ , SO ₂ , PM ²	Primary NO ₂	Primary SO ₂	CO
Last Review Completed (final rule signed)	Sept 2016	Dec 2020	Dec 2020	Mar 2012	April 2018	Feb 2019	Aug 2011
Recent or Upcoming Major Milestone(s)	<u>April 2022</u> CASAC Consultation on Integrated Review Plan, Vol 2 <u>Early 2023</u> Draft ISA	<u>April 2022</u> Draft PA released	<u>Summer 2022</u> Proposed Rulemaking (anticipated) <u>Spring 2023</u> Final Rulemaking (anticipated)	<u>2023</u> Draft PA with REA Appendices ³	<u>TBD</u> ⁴	<u>TBD</u> ⁴	<u>TBD</u> ⁴
Additional information regarding current and previous NAAQS reviews is available at: 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 REA – Risk and Exposure Assessment; PA – Policy Assessment

⁴ TBD = To be determined



Reconsideration of Ozone NAAQS

- On October 28, 2021, EPA announced that it would reconsider the 2020 decision to retain the existing ozone NAAQS set in 2015, with a final decision on the reconsideration expected by the end of 2023.
- In April 2022, a draft Policy Assessment (PA) for the Ozone Reconsideration was released with the preliminary staff conclusions that it is appropriate to consider retaining the current primary (health-based) and secondary (welfare-based) standards without revision.
- The Clean Air Scientific Advisory Committee (CASAC) postponed its review of the draft PA to discuss certain scientific issues related to the Integrated Science Assessment (ISA). Based on these deliberations, the CASAC plans to develop a consensus letter to the Administrator with the CASAC's views on the scientific issues related to the 2020 ISA.
- EPA expects the current deliberations on the science to conclude this fall and will assess at that time what, if any, modifications to the reconsideration schedule may be needed.



Reconsideration of PM NAAQS

- EPA is reconsidering the December 2020 final decision to retain the PM NAAQS, without revision, because the available scientific evidence and technical information indicate that the current standards may not be adequate to protect public health and welfare, as required by the Clean Air Act.
- EPA released the final Supplement to the 2019 PM Integrated Science Assessment and a final Policy Assessment in May 2022. The CASAC provided advice to the Administrator on drafts of these documents in March 2022.
- In its comments, the CASAC agreed with EPA that the primary (health-based) annual PM_{2.5} standard (currently set at a level of 12 µg/m³) is “not sufficiently protective of public health” and should be revised. The majority of the CASAC supported revising the level to within the range of 8-10 µg/m³, while the minority supported revising the level to within the range of 10-11 µg/m³.
 - The majority of CASAC members disagreed with EPA that the current primary 24-hour PM_{2.5} standard (currently 35 µg/m³) was adequate and recommended revising the level within the range of 25 to 30 µg/m³, while the minority recommended retaining the current standard.
- EPA expects to issue a proposed rulemaking in Fall 2022 and a final rule in Spring 2023, following opportunities for public review and comment.



Inflation Reduction Act (IRA) of 2022

- Provides funding for state and local governments under Clean Air Act sections 103, 105, and new sections 134 and 137, to reduce greenhouse gas emissions, purchase low-emission or zero-emission equipment, and improve compliance with federal emission standards.
- New CAA section 134 Greenhouse Gas Reduction Fund – \$27 billion – will allow EPA to provide resources to states, municipalities and private green banks for financing of GHG reduction projects without the requirements associated with direct federal investment.
- New CAA section 137 Climate Pollution Reduction Grants – \$5 billion – EPA grants to state, tribal, and municipal governments and air pollution control agencies to develop and implement greenhouse gas reduction plans in all 50 states.
- Provisions partly directed at nonattainment areas include grants to replace older Heavy-Duty Diesel vehicles (\$400M in 60101) and install zero-emission equipment at Ports (\$750M in 60102).
- Several provisions involve addressing impacts of air pollution in low-income and disadvantaged communities (including 60103, 60104, 60105(c), 60106, 60107, 60114).

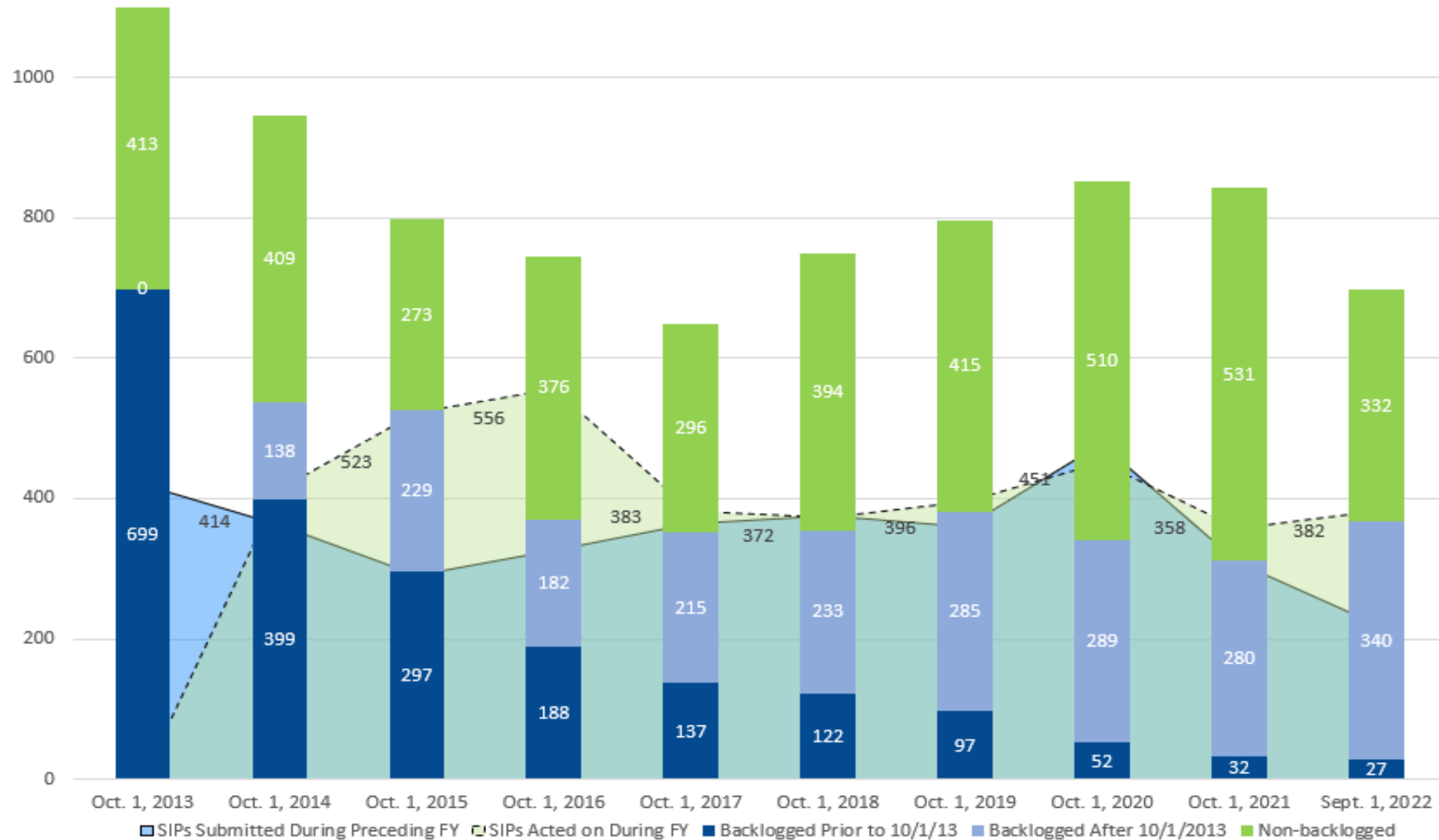


Environmental Justice

- EPA has defined environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”
- Efforts ongoing at all levels at EPA to infuse equity and environmental justice principles and priorities into EPA practices, policies, and programs, including assessing how to address EJ concerns in federal rulemakings, SIP reviews, and permitting.
- The Office of General Counsel issued an update to “[EJ Legal Tools to Advance Environmental Justice](#)” (March 26, 2022)
 - Intended to help EPA decisionmakers and partners understand their authorities in environmental and civil rights statutes to consider and address environmental justice and equity in decision-making, and to promote meaningful engagement.
- OGC’s External Civil Rights Compliance Office issued “[Environmental Justice and Civil Rights in Permitting / Frequently Asked Questions](#)” (August 16, 2022)
 - Provides information to EPA, federal, tribal, state, and local environmental permitting programs on how to integrate EJ into their permitting processes. It also outlines how recipients of EPA financial assistance are obligated to comply with federal civil rights statutes, including Title VI of the Civil Rights Act of 1964, in their permitting processes.
 - Also expected to issue guidance soon on how to evaluate cumulative impacts when assessing whether an action, policy or practice has an unjustified disparate and adverse impact.



Improving State Implementation Plan Reviews: *SIPs Pending EPA Review FY 2014 – September 1, 2022*





Geographic Strategies Group Programs

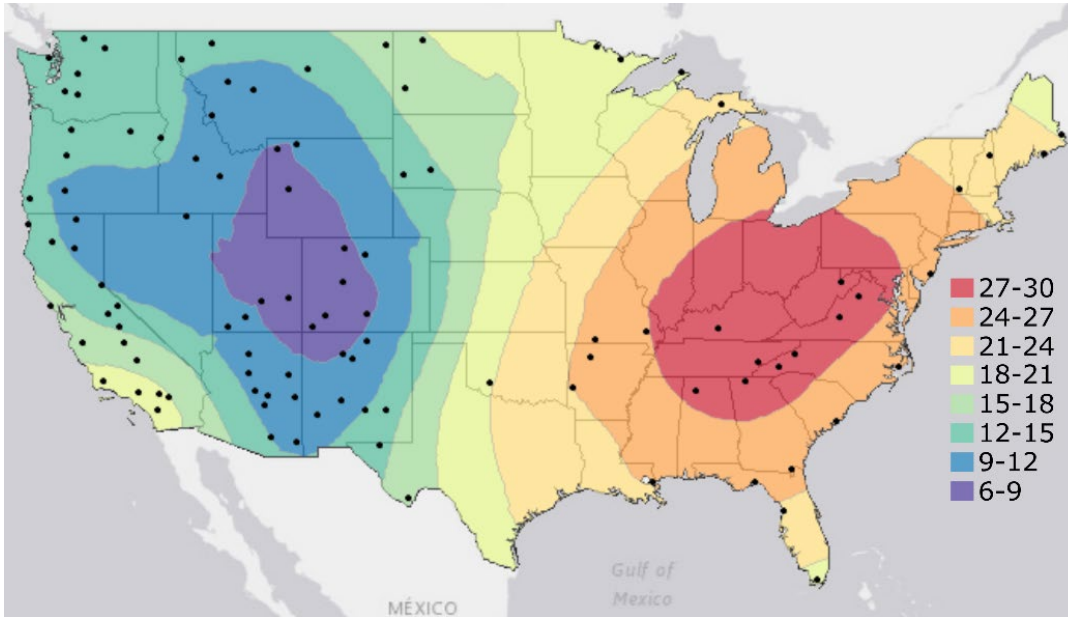
Group Leader: Elizabeth (Beth) Palma



Regional Haze: Visibility is Improving

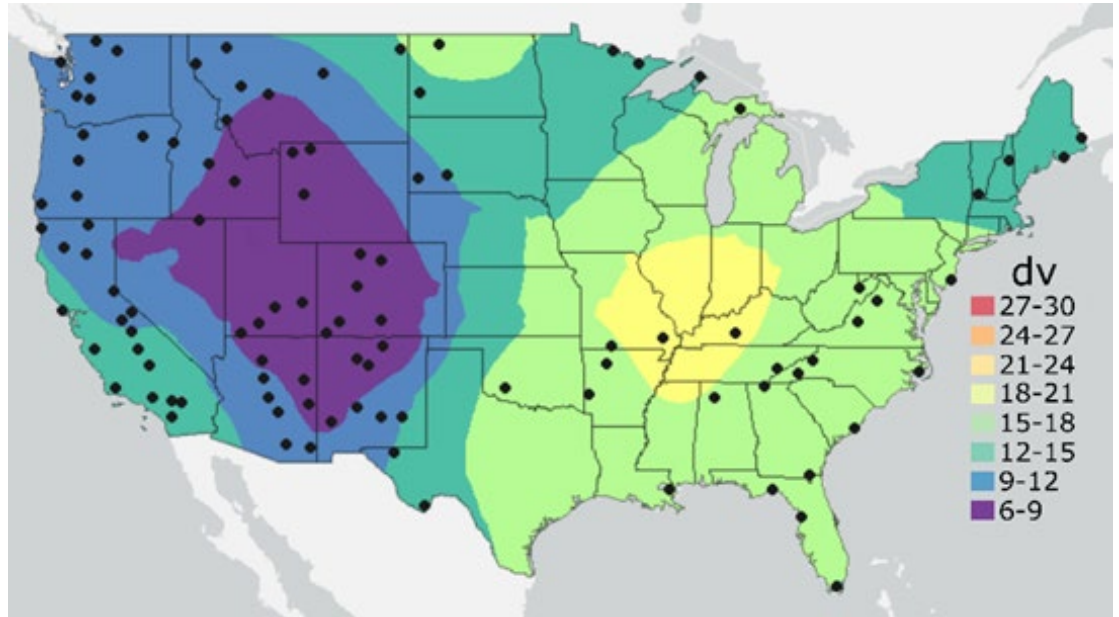
2000-2004

Visibility (dv) on 20% most impaired days



2016-2020

Visibility (dv) on 20% most impaired days



- Between 2000 and 2020, state and Federal emissions control programs, including the 1st implementation period of the Regional Haze Program, have reduced total SO₂ emissions by 14.5 million tons per year (-89%) and total NO_x by 14.3 million tons per year (-64%).
- EPA estimates conclude that visibility has improved significantly with the average visual range increased by 15–25 miles in Class I areas.



Regional Haze Program Update

- Second planning period regional haze information from EPA:
<https://www.epa.gov/visibility/visibility-guidance-documents>
 - As of August 31, 2022, EPA has received 37 final SIPs.
 - EPA issued [Findings of Failure to Submit](#) effective September 29, 2022, for 15 states. (87 FR 52856).
- EPA previously committed to reconsidering certain aspects of the 2017 Regional Haze Rule revisions, including FLM consultation and RAVI provisions.
 - Other rule changes for the 3rd planning period and beyond may also be considered.
 - We look forward to communicating with states and other stakeholders on this topic in the future.

Regional Haze SIP Status as of August 31, 2022	
EPA Final Actions Published	1
Submitted SIPs Awaiting EPA Action	36
SIPs Outstanding	15



2015 Ozone Transport SIP Status (as of 8/30/22)

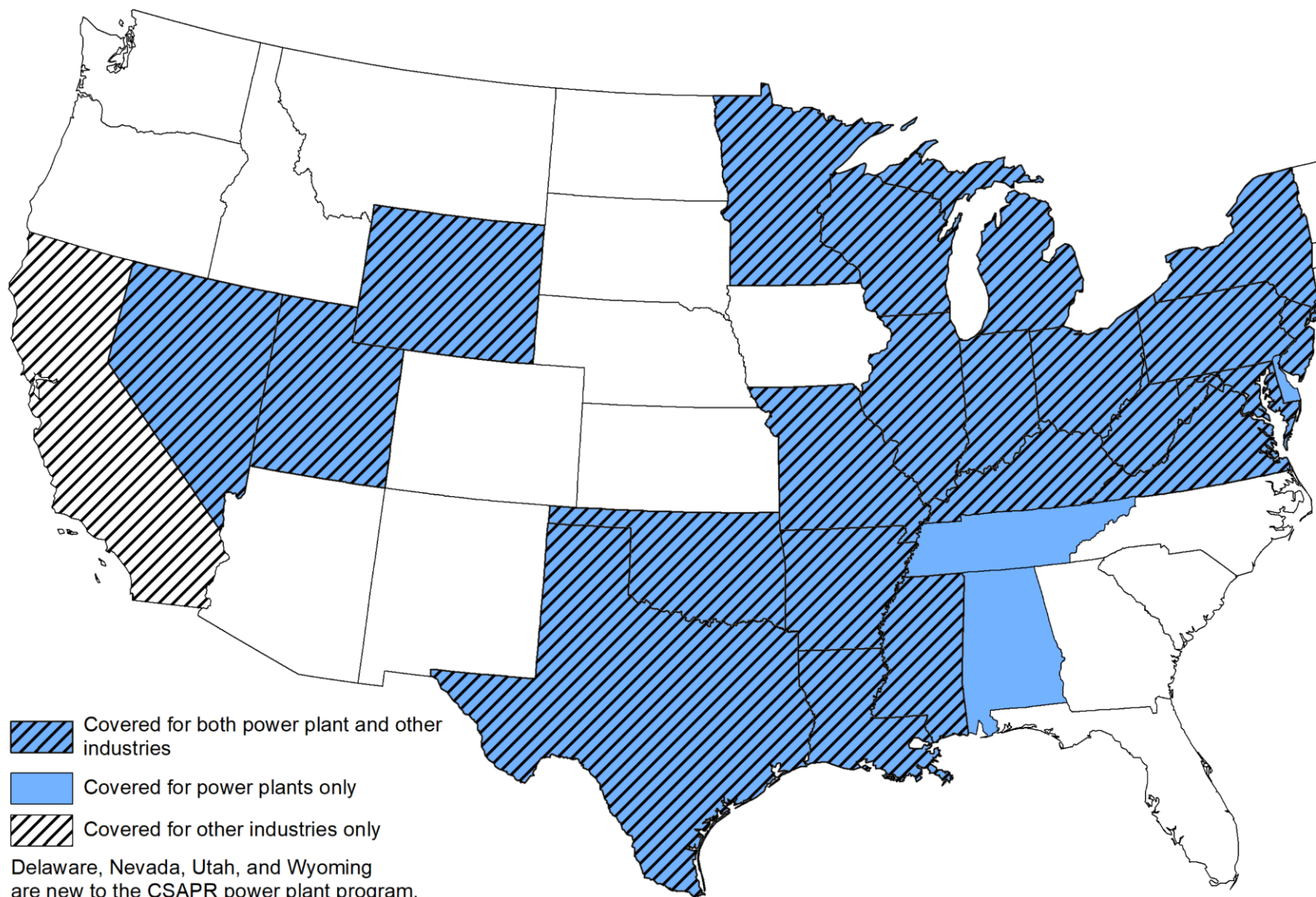
- EPA has received SIPs for 49 of 56 states/jurisdictions.
 - Final approval action taken on 24 SIPs.
 - Proposed approval on 2 SIPs.
 - Proposed disapproval on 23 SIPs.
- EPA will continue to act on SIPs, consistent with deadlines established by consent decrees:
 - December 15, 2022, final action deadline applies for 1) eastern US states where EPA proposed a FIP by February 28, 2022, and 2) several western US states.
 - April 30, 2022, final action deadline for eastern states where EPA had not proposed a FIP.
- Action on SIPs is consistent with analytical framework used in the proposed ozone transport federal plan for 2015 ozone NAAQS.



Good Neighbor FIP Proposal Overview

- Intended to ensure states meet their obligations under the Clean Air Act's "Good Neighbor" provision for the 2015 ozone National Ambient Air Quality Standards (NAAQS).
 - Would establish Federal Implementation Plan (FIP) requirements for states to eliminate their significant contribution to nonattainment, or interference with maintenance, of the NAAQS in downwind states where EPA has made a Finding of Failure to Submit or disapproves a Good Neighbor SIP.
- Proposal applies a time-tested, judicially-reviewed framework for establishing Good Neighbor requirements.
 - Updates to keep pace with more protective 2015 NAAQS, updated evaluation of ozone transport, and latest technical analysis.
 - Identifies 27 states that are linked to downwind air quality problems for purposes of the Good Neighbor provision.
 - Determines required reductions in ozone precursor emissions (NO_x).
 - 25 states with requirements for Electric Generating Units (EGUs) starting 2023 ozone season.
 - 23 states with requirements for certain industrial source categories (non-EGUs) no later than 2026 ozone season.
- EPA estimates the proposal would reduce ozone-forming NO_x emissions from the 26 upwind states by approximately 94,000 tons in the 2026 ozone season (May 1 – September 30).

States/Sources Covered by Proposed FIP Obligations



EGUs + Other Industries:

- Reciprocating internal combustion engines in *Pipeline Transportation of Natural Gas*
- Kilns in *Cement and Concrete Product Manufacturing*
- Boilers and furnaces in *Iron and Steel Mills and Ferroalloy Manufacturing*
- Furnaces in *Glass and Glass Products Manufacturing*
- Boilers in *Basic Chemical Manufacturing*
- Boilers in *Petroleum and Coal Products Manufacturing*
- Boilers in *Pulp, Paper, and Paperboard Mills*
- Requested comment on *Municipal Waste Combustors*



SO₂ and PM_{2.5} Transport SIP Update

- EPA has 12 complete SO₂ interstate transport SIP submittals that are under review: IN, LA, MD, MS, NC, NJ, NY, OH, OK, TN, TX, WI.
- EPA is reviewing large sources of SO₂ near state borders that may have interstate transport implications.
- 2012 PM_{2.5} interstate transport SIPs for 48 states have been approved. SIPs for 2 states are under active review (NV, AZ). HI plus several territories have not submitted SIPs.

1-hour SO₂ Transport SIP Status

as of August 30, 2022

1-hour SO ₂ Transport SIP Status as of August 30, 2022	
EPA Final SIP Approvals	27
SIPs Awaiting EPA Action	12
SIPs Outstanding SIP (deadline 6/2/2013)	12



Exceptional Events Update

- EPA has concurred on 114 state demonstrations that were submitted since EPA revised the Exceptional Events Rule in September 2016.
- States have submitted 39 final demonstrations through the SPeCS for Exceptional Events Tracking System that was deployed in August 2020.
- EPA's exceptional events webpage provides additional resources, including example demonstrations for Ozone and PM and example Mitigation Plans.
 - <https://www.epa.gov/air-quality-analysis/treatment-air-quality-data-influenced-exceptional-events>
- EPA identified 15 additional Exceptional Event Mitigation Plans, due by April 27, 2024, for areas in California, Nevada, New Mexico and Wyoming (see 92 FR 29045, May 12, 2022)



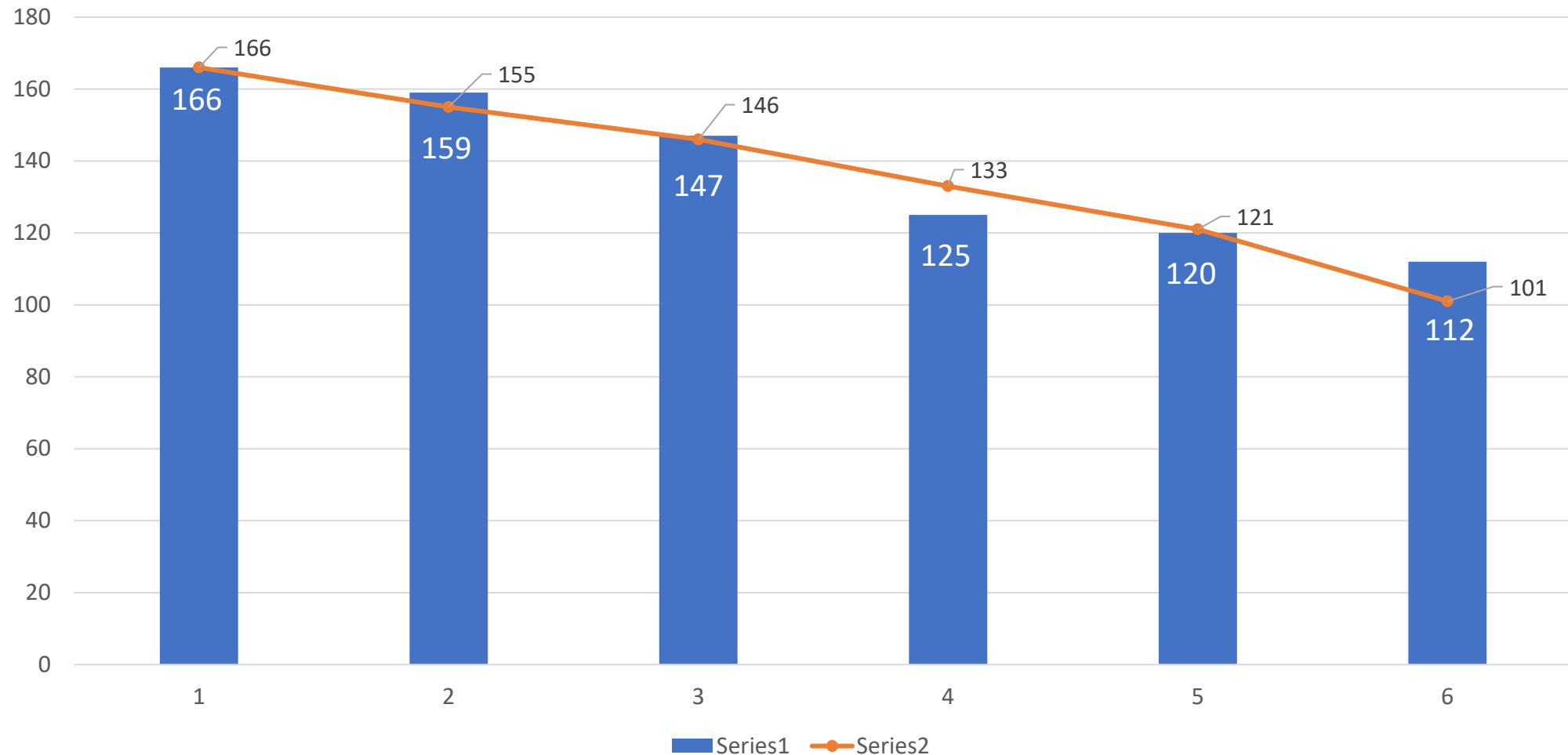
State & Local Programs Group – NAAQS Attainment Planning

Group Leader (Acting): Rich Damberg



Reducing Number of Nonattainment Areas

FY 2018-2022 U.S. EPA Strategic Plan 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.

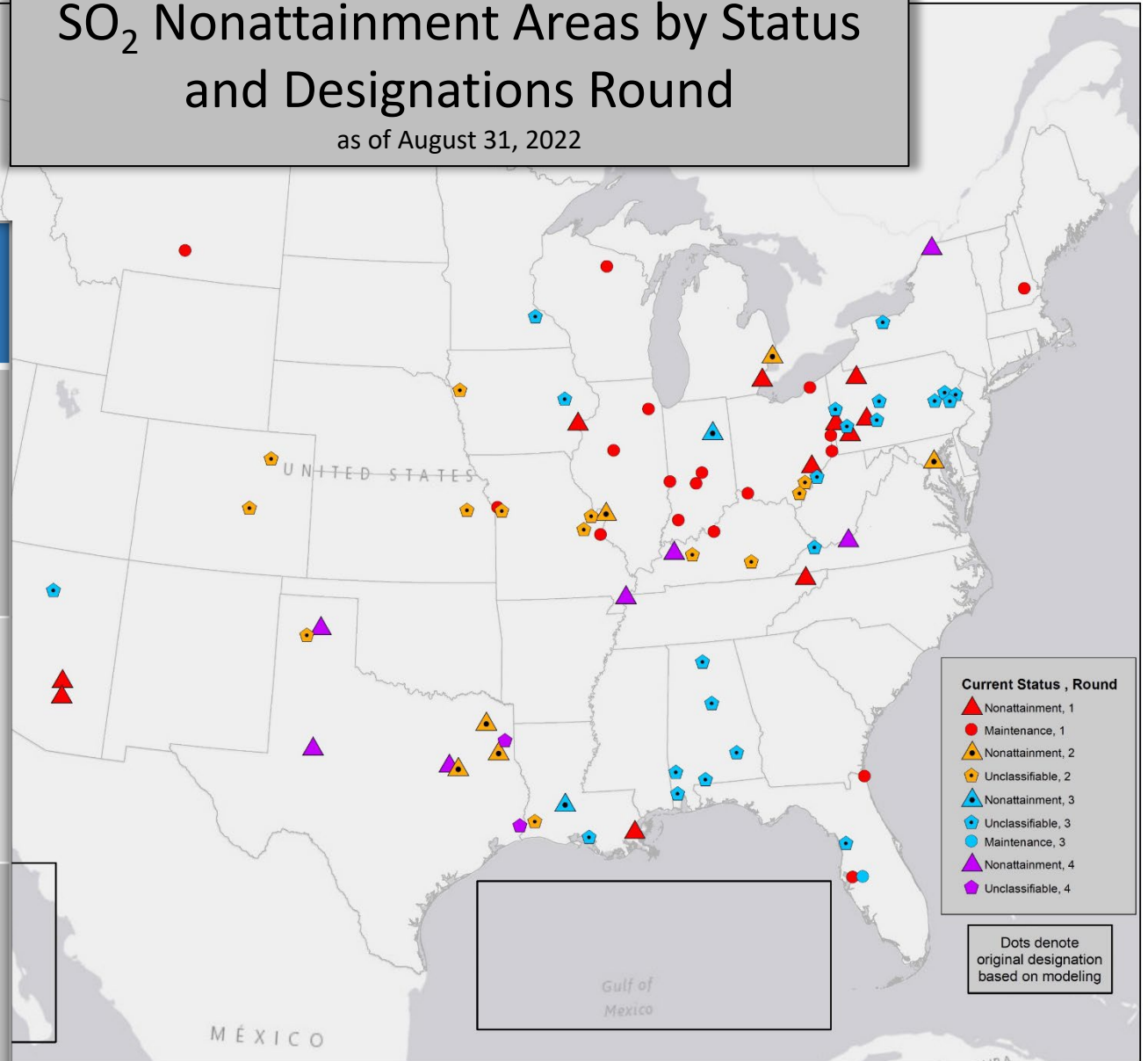




SO₂ Nonattainment Areas by Status and Designations Round

as of August 31, 2022

	Rnd 1	Rnd 2	Rnd 3	Rnd 4	Total
Nonattainment	11	6	5	8	30
Unclassifiable	-	13	24	2	39
Maintenance	18	-	1	-	19





SO₂ NAAQS Implementation Update

- Round 1 Nonattainment Areas
 - Indiana, PA: EPA published final partial approval/disapproval of remanded attainment plan on August 18, 2022. Region 3 considering redesignation to nonattainment for adjacent Westmoreland/Cambria, PA.
 - Detroit, MI: Proposed FIP 6/1/22 87 FR 33095. Final FIP deadline of Sept. 30, 2022.
 - Hayden & Miami, AZ: Revised attainment plans due January 31, 2023.
 - Sullivan Co, TN: Finding of Failure to Attain effective May 5, 2022; revised attainment plan due April 3, 2023.
- Round 2 Nonattainment Areas
 - EPA has deadlines in 2022 and 2023 to take final action on attainment plans for 3 of the 6 remaining areas in TX, MD, and IL.
- Round 3 Nonattainment Areas
 - Finding of Failure to Submit attainment plans issued for five Round 3 areas on Nov. 3, 2020.
 - SIP action/FIP deadline is December 3, 2022.
- Round 4 Nonattainment Areas
 - Deadline for attainment plan submittals for eight areas is October 30, 2022.



Ozone NAAQS Implementation Update

- Determinations of attainment by the 2021 attainment dates finalized this year.
 - 2008: 6 Serious nonattainment areas did not attain; 3 areas attained
 - New Severe area SIP requirements due 18 months after the effective date.
 - New Severe area attainment deadline is July 20, 2027.
 - 2015: 24 Marginal nonattainment areas did not attain; 12 areas attained
 - 1-year attainment date extension for Uinta Basin.
 - New Moderate area SIP requirements due January 1, 2023.
 - New Moderate area attainment deadline is August 3, 2024.
- Redesignations to attainment
 - 2008: Chicago (IL, IN and WI portions)
 - 2015: Cincinnati (OH portion); Door County-Revised, WI; Louisville (IN portion); Manitowoc County, WI



Ozone NAAQS Implementation Updates (cont.)

- SIP Status Updates
 - 2008 NAAQS: July 15, 2023 original Severe area SIP deadline.
 - 2015 NAAQS: for all obligations due August 3, 2021; 22 areas with 52 SIP elements in total overdue (as of 8/29/22). Includes nonattainment NSR SIPs/certifications for 21 areas covering 27 NNSR elements.
- Contingency Measures (CMs)
 - Recent court decisions have invalidated the past practice of relying on surplus mobile reductions from fleet turnover to satisfy the CM requirement for nonattainment plans. CMs must be prospective and conditional, *i.e.*, cannot be “already implemented”.
 - EPA convened an internal task force to evaluate potential changes to CM policy/guidance. The task force recommended that:
 - EPA should make changes to existing CM guidance to address these challenges. EPA should issue draft guidance and solicit comment from states, MJOs, and other stakeholders.
 - EPA should also work with states, MJOs, and other stakeholders to develop resources to aid in identifying candidate CMs.
 - EPA is planning to address these recommendations in the near future.



Progress on PM NAAQS Attainment through 8/31/2022

	1997 PM _{2.5} (2005 Designations)	2006 PM _{2.5} (2009 Designations)	2012 PM _{2.5} (2015 Designations)	1987 PM ₁₀ (1990-1998, 2010, 2012 Designations)
Initial Nonattainment Areas	39	32	9	89
Areas Redesignated to Attainment	35	19	4	67
Current Nonattainment Areas	3 Mod. w/CDDs 1 Serious	8 Mod. w/CDDs 5 Serious (incl 2 CDDs)	3 Moderate (incl 1 CDD) 2 Serious	22
Attainment Deadlines	Various	Various	Moderate: 2021 Serious: 2025	Various

CDD = Clean Data Determination, which suspends certain attainment planning requirements.



Provisions Concerning Start-Up, Shutdown and Malfunction (SSM) Events in SIPs

- EPA is implementing the SSM Policy outlined in the 2015 SSM SIP Call action and later reinstated by the September 2021 McCabe memo. This memo affirmed that:
 - Automatic and discretionary exemptions from SIP emissions limits and affirmative defense provisions are inconsistent with the CAA.
 - The 2015 SSM SIP Calls remain in effect.
 - EPA is committed to revisiting the SIP calls for NC, IA, and TX that were withdrawn in 2020.
- Recent implementation steps include:
 - 17 proposed and 14 final actions on SIPs submitted in response to the 2015 SIP Call.
 - January 4, 2022 Findings of Failure to Submit (FFS) for 12 overdue SIP Call responses.
- Future implementation steps include
 - Continuing to review and act on the ~15 pending SIP Call response submittals and other SSM-related submittals.
 - Proposing a new 2023 SSM SIP Call action (to include reinstating SIP calls for NC, IA, TX)



New Source Review Group Programs

Group Leader: Rochelle (Boyd) King



Permitting Program Updates

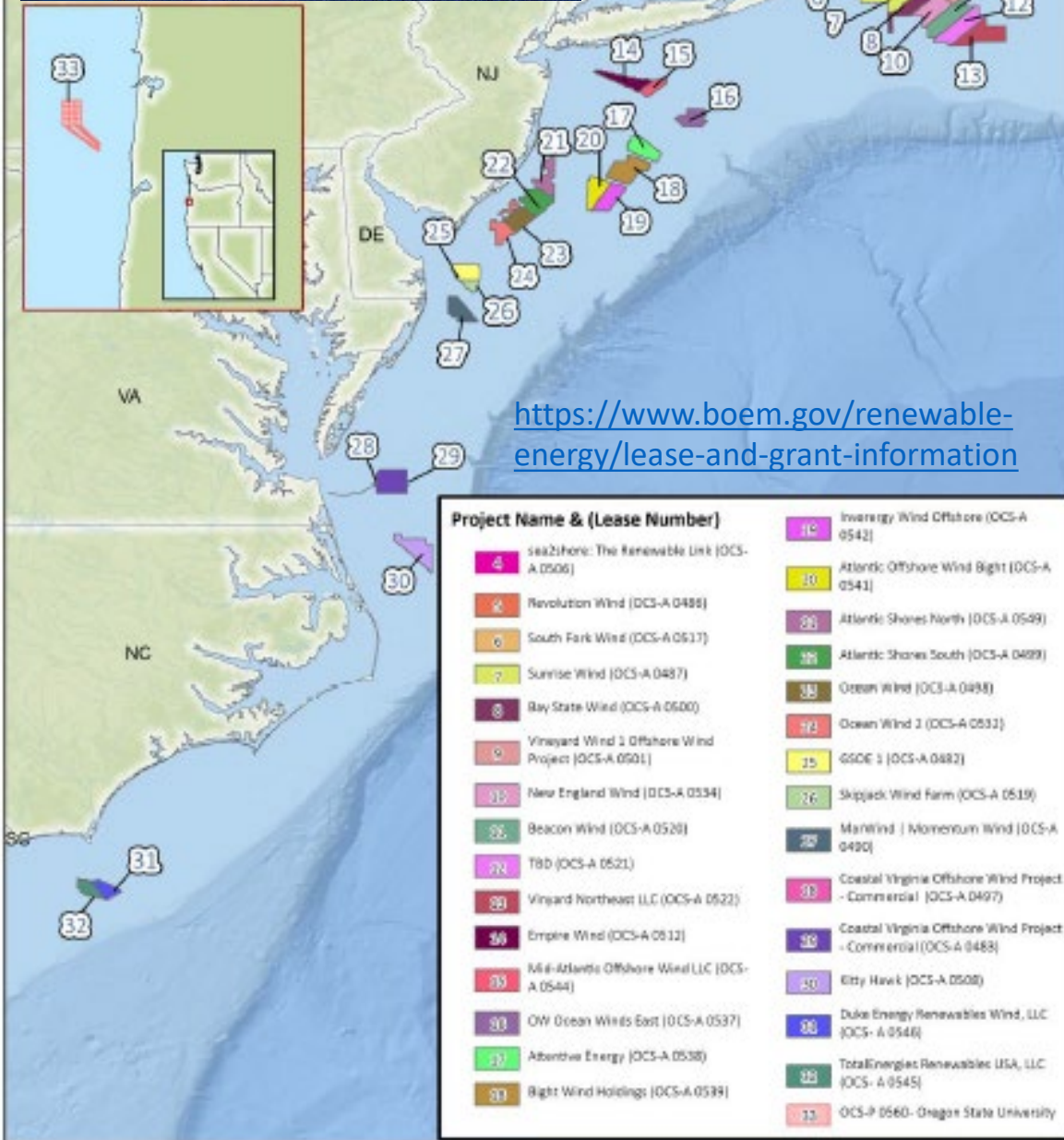
- Final [Guidance on Ozone and Fine Particulate Matter Permit Modeling](#) issued July 29, 2022.
- Evaluating sufficiency of minor NSR program provisions
 - Public notice/participation requirements.
 - Guidance/oversight related to synthetic minor permitting.
- Addressing “potential to emit” concerns from July 2021 OIG report:
 - by October 2023, update EPA’s 1989 Guidance on Limiting Potential to Emission in New Source Permitting on practical enforceability to more clearly describe how the technical accuracy of a permit limit should be supported and documented.
 - by October 2024, revise EPA guidance to communicate key expectations for synthetic minor permit terms and conditions to ensure PTE remains below applicable major source thresholds, including meeting criteria for what it means for the PTE limits to be legally and practicably enforceable.



Permitting Program Updates (cont.)

- Reconsidering the 2008 Fugitive Emissions Rule to address which sources are required to count fugitive emissions towards NSR major modification thresholds.
- Reviewing aspects of Project Emissions Accounting Rule for determining major modification applicability
 - Discretionary rulemaking to consider issues raised in a January 2021 petition.
 - Project Emissions Accounting Final Rule: 85 FR 74890 (11/24/20); Denial of Petition for Reconsideration: 86 FR 57585 (10/18/21).
- Reviewing EPA's 2017 enforcement discretion memo titled "New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability".

Outer Continental Shelf Renewable Energy Leases



OCS Wind Energy

- Leases/projects administered by BOEM, most are expected to be covered by procedures in Title 41 of the Fixing America's Surface Transportation Act (aka FAST-41 projects).
- Federal Permitting Improvement Steering Council (FIPSC) works to enhance coordination among Federal and state partners and project sponsors for issuing infrastructure project permits.
- At least 17 wind farm projects expected to be developed on the OCS between 2021 and 2030 where EPA will be the primary air permitting authority.



Outer Continental Shelf Air Permitting

- OCS air permits are “umbrella permits” for air pollution control from sources located in the OCS. OCS permitting requirements include:
 - NSPS, NESHAPs, NSR/PSD, nonattainment NSR, title V and any other state/local requirements applicable in the Corresponding Onshore Area (except for outer OCS projects).
- Two OCS wind energy air permits issued recently by EPA:
 - Vineyard Wind 1 (May 2021). Facility began construction in Nov. 2021.
 - South Fork Wind (Jan. 2022). Facility began construction in Feb. 2022.
- Policy interpretations:
 - Pull-ahead anchor Cable Laying Vessels are not OCS sources.
 - Permitting-related emissions offsets are not required for OCS construction emissions.
 - Define OCS sources as the entire Wind Development Area for the project, which can include air pollutant emitting and non-emitting equipment and activities.
 - Case-by-case modeling exemptions for temporary emissions sources.
 - Separate assessment of OCS permitting requirements during the construction and operational phases of an OCS project.
 - Conditions for aggregating emissions from separate but adjacent wind farms under common control.



Operating Permits Group Programs

Group Leader: Cheryl Vetter



Title V Program Update

- Citizen Petitions
 - From Oct 1, 2016 – Aug 31, 2022, EPA received 75 petitions, resolved 113 petitions.
 - Monitoring remains a primary issue, especially for synthetic minor permits.
- Removal of Title V Affirmative Defense Provisions
 - Renewal of 2016 proposal, repropose April 1, 2022 (87 FR 19042).
- Title V Applicable Requirements Rule
 - Clarify the definition of “applicable requirement” within title V program as it relates to NSR permit requirements.
- EPA Office of Inspector General January 2022 report “EPA’s Title V Program Needs to Address Ongoing Fee Issues and Improve Oversight.”
 - OIG conducted 31 Title V program evaluations from 2018 through 2020.
 - Indicated more than half (52 percent) did not undergo a Title V fee evaluation despite having indicators that should have triggered such a fee evaluation.
 - Concluded that declining Title V fee revenues and the misuse of Title V funds pose a “significant challenge” to EPA and state and local Title V permitting authorities.



OIG Title V Evaluation: EPA Corrective Actions

Develop/implement a plan to address declining Title V revenues –

- (1) convene a workgroup, identify key stakeholders and plan for consultations;
- (2) conduct consultations with permitting authorities to review the scope fee deficiencies and fee structures and identify current best practices; and
- (3) implement the strategies identified.

Update EPA's 2018 Title V fee guidance to:

- (1) set expectations on time frames for permitting authorities to complete corrective actions in program and fee evaluations, and for escalating consequences if timely corrective actions are not completed; and
- (2) establish criteria for how and when EPA must conduct Title V fee evaluations.

Provide recurring training on Clean Air Act Title V fee laws, regulations and guidance to EPA staff and permitting agencies.

Questions and Comments





Electronic Data System Support

State Planning electronic Collaboration System (SPeCS)

- In 2016, through a partnership with E-Enterprise and ECOS, an EPA-State project team began developing SPeCS for electronically submitting, reviewing, tracking and publicly reporting on state implementation plans (SIPs) and related demonstrations.
- Currently, all 50 states and 8 local air agencies voluntarily use SPeCS.
- Since 2018, over 1,300 draft and final state plans have been submitted through SPeCS.
- Considering new modules for submitting section 111(d) state plans and IRA GHG plans.
- Public dashboard:
https://edap.epa.gov/public/extensions/S4S_Public_Dashboard_2/S4S_Public_Dashboard_2.html

Green Book www.epa.gov/green-book

- The EPA Green Book provides up-to-date detailed information about area NAAQS nonattainment area designations, classifications and nonattainment status.
- Information is available in reports, maps and data downloads, as well as links to relevant Federal Register actions.



Electronic Data System Support

Electronic Permitting System (EPS)

- Evaluating sunseting EPS due to budget and system maintenance issues.
- EPS was developed in close coordination with state partners and ECOS to provide a central system for states to transmit Clean Air Act permits for EPA review, and then facilitate communication between EPA and the state regarding EPA review of those permits.
- Since completion in March 2020, EPS has received more than 4,500 permit actions from 22 states and 63 local permitting authorities in EPA Regions 1, 4, 9, and 10.

Compliance and Emissions Data Reporting Interface (CEDRI)

- Allows affected sources to electronically submit performance test reports, notification reports, and periodic reports to EPA.
- Facilitates compliance for Federal tribal minor NSR under Part 49; State, local or tribal title V programs approved under Part 70; and Federal title V program under Part 71
- More than 400 reports have been submitted under parts 49, 70, and 71.



- A collaborative program for states, tribes, and local governments to avoid nonattainment and achieve ongoing emission reductions in areas designated as attainment or maintenance for ozone and/or PM_{2.5} NAAQS.
- Currently 46 partner areas covering more than 50 million population. Partners include states, tribal nations, cities, counties, councils of government, regional planning commissions.

Goals

- 1) Leverage programs and planning to address air quality, climate, and environmental justice objectives;
- 2) Help meet the environmental, health, economic development, and quality of life goals in the participating area.

Benefits of partnership

- Avoid the costs of nonattainment designation for ozone or PM_{2.5} while collaborating with local stakeholders
- Implement ozone and PM_{2.5} programs that also support climate goals and address concerns of EJ communities
- Obtain technical assistance from multiple EPA offices and other agencies like DOE and DOT
- Attend monthly meetings with partners sharing best practices and EPA training on programs and tools
- Receive monthly newsletter on grants and training opportunities

Requirements

Advance Partners provide EPA with annual plan updates describing progress in implementing relevant programs in their communities (e.g., to reduce emissions from mobile sources and stationary sources; to promote energy efficiency and renewable energy, community monitoring, education and outreach), and outlining plans for the next year.

For more info, contact Rich Damberg (damberg.rich@epa.gov) and Mia South (south.mia@epa.gov)