

# NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS) IMPLEMENTATION

Internal deliberative pre-decisional - FOR USE BY 2024 PRESIDENT-ELECT TRANSITION TEAM MEMBERS ONLY

## ISSUE SUMMARY:

The National Ambient Air Quality Standards (NAAQS) are a cornerstone of the Clean Air Act (CAA). Effective implementation of the NAAQS protects public health and welfare across the U.S. The NAAQS cover six air pollutants: carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), ozone (O<sub>3</sub>) and related photochemical oxidants, particulate matter (PM), lead (Pb), and sulfur oxides (SO<sub>x</sub>). These pollutants are known as “criteria pollutants,” or NAAQS pollutants.

The Agency has several long-term performance goals focused on NAAQS implementation, including by September 30, 2026, improve measured air quality in counties not meeting the current NAAQS from the 2016 baseline by 10%. Progress in this area is highly dependent on the state-federal partnership (also known as “cooperative federalism”) established in the CAA. EPA and the states have specific authorities and obligations. Once EPA promulgates a new or revised NAAQS, the Agency is also required to designate areas across the country according to whether they are meeting or not meeting the NAAQS following a consultative process with the states and Tribes. Areas with air quality that meets or is cleaner than the national standard are designated “attainment/unclassifiable”; areas that don't meet the national standard are called nonattainment areas. In cases where there is not enough information to determine the status of an area, the area is designated “unclassifiable.” State and local air agencies have the primary responsibility for developing State Implementation Plans (SIPs) to improve air quality in areas not attaining the NAAQS, and, for all areas, to demonstrate how air quality in areas will be maintained into the future. As part of the SIP process, air agencies make decisions about controlling sources of criteria air pollutants within their jurisdictions, in order to attain and maintain the NAAQS consistent with CAA requirements. EPA provides implementation guidance and interpretation of the CAA requirements and must review SIP revisions submitted by the states for consistency with the applicable requirements of the CAA. NAAQS implementation also includes overseeing the stationary source preconstruction permit program known as new source review.

From 1970 to 2023, aggregate national emissions of the six NAAQS pollutants dropped by 78% while gross domestic product grew by 321%. In 2023, approximately 140 million people lived in counties with pollution levels above the level of the primary NAAQS for at least one pollutant. Despite these aggregate trends, there also continue to be geographic locations across the United States, including areas with substantial populations, where there is slower progress in air quality improvement for certain criteria air pollutants.

Nationally, ambient concentrations of the criteria pollutants have dropped significantly between 1990 and 2023:

- Carbon Monoxide (CO) 8-Hour, 79%
- Lead (Pb) 3-Month Average, 87% *(from 2010)*
- Nitrogen Dioxide (NO<sub>2</sub>) Annual, 62%
- Nitrogen Dioxide (NO<sub>2</sub>) 1-Hour, 55%
- Ozone (O<sub>3</sub>) 8-Hour, 18%
- Particulate Matter 10 microns (PM<sub>10</sub>) 24-Hour, 29%
- Particulate Matter 2.5 microns (PM<sub>2.5</sub>) Annual, 37% *(from 2000)*
- Particulate Matter 2.5 microns (PM<sub>2.5</sub>) 24-Hour, 29% *(from 2000)*
- Sulfur Dioxide (SO<sub>2</sub>) 1-Hour, 92%

## KEY POINTS:

- The Clean Air Act lays out deadlines and timelines for EPA and states to implement new or revised NAAQS.
- EPA has promulgated regulations and issued guidance to address implementation requirements.
- Court decisions have further refined interpretations of the CAA.
- Implementing the NAAQS includes a wide range of actions, including: “designating” areas as meeting or not meeting a NAAQS; evaluating and approving or disapproving SIP submissions; determining whether states have attained the NAAQS by the applicable attainment date; and, where necessary, issuing a federal implementation plan (FIP).

## ONGOING/UPCOMING REVIEWS FOR FY2025:

- Secondary NAAQS. On April 3, 2024, the EPA proposed to revise the secondary NAAQS for oxides of sulfur (SO<sub>x</sub>) and to retain the secondary standards for oxides of nitrogen (N oxides) and PM. Secondary standards protect the public welfare against adverse ecological effects. This NAAQS review is under consent decree to be finalized by December 10, 2024, and if finalized as proposed, would initiate implementation activities.
- PM NAAQS Designations timeline. In Feb. 2024, EPA issued a revised PM<sub>2.5</sub> NAAQS. Implementation is now underway. The revised standard is currently in effect for the purpose of stationary source preconstruction permitting. EPA’s issuance of the initial area designations for a new or revised NAAQS is typically a 2-year process, resulting in EPA making final decisions regarding what areas of the country are meeting the revised standard (attainment); not meeting the revised standard (nonattainment); and have insufficient information to make the determination (unclassifiable). Once designations are complete, states with areas designated nonattainment must develop and submit plans to control emissions within a specific timeline. These plans must provide for attainment of the NAAQS by specific statutory dates. Further, all states must also submit a state plan called an “infrastructure SIP” by February 2027 which establishes that the state has the basic program elements needed to implement, maintain, and enforce the new NAAQS. There are multiple statutory milestones along the way as part of implementation of the new NAAQS, some of which will occur in FY 2025.
- Ozone NAAQS. The CAA requires by February 2025 that EPA determine whether “Moderate” nonattainment areas for the 2015 ozone NAAQS attained by their statutory attainment date of August 2024. Areas that failed to attain by August 2024 and did not qualify for a 1-year attainment date extension are reclassified by operation of law under the statute to “Serious.” EPA regional offices will be issuing these determinations. In September 2024, EPA proposed a rule to establish SIP submittals and implementation deadlines for those areas that will be reclassified to Serious. OAR is planning to issue the final rule early in 2025.
- Redesignations. Under the CAA, states may request for area designations to be revised, and EPA must act on such requests within 18 months of receipt. States requesting area redesignations from nonattainment to attainment must meet a number of statutory criteria.
- FIPs. The CAA requires that EPA issue a FIP in certain circumstances where, for example, 2 years have passed after either a state fails to submit a required SIP submission or EPA has disapproved a state submission. There are a number of actions related to implementation of the NAAQS and regional haze where EPA either has a pending obligation to issue a FIP or may have such an obligation arise during FY2025.
- SIPs. OAR tracks SIP submissions from air agencies and EPA action on SIP submissions. SIP action metrics are reviewed by OAR on a monthly basis to ensure they are on track. During FY 2025, OAR will continue this work which is necessary for implementation of the NAAQS.
- Regional Haze. EPA is currently implementing the regional haze program for both the first and second planning periods. During FY 2025, EPA anticipates continuing to take the remaining actions needed to complete first planning period obligations while also working to implement the second planning period. In addition, in FY 2025, EPA anticipates engaging in regulatory action to revise the regional haze rule for obligations associated with the third planning period.

- **Exceptional Events.** In FY 2025, exceptional events issues are likely to arise in the context of initial area designations (especially for wildland fires and prescribed fire related impacts); ozone reclassification and redesignation actions; and other PM redesignation actions.
- **Wildfires.** Smoke from wildland fires is currently a critical air quality issue and EPA has taken many actions to facilitate the process for air agencies requesting the exclusion of air quality data influenced by wildfire smoke in NAAQS regulatory decisions (i.e., exceptional events).
- **Monitoring.** The efficacy of the nation’s ambient air monitoring network is reviewed by EPA every year. State, local, and Tribal air monitoring agencies submit to EPA reports on the status of their monitoring networks and proposed changes each July for review and approval by EPA regional administrators.

#### KEY EXTERNAL STAKEHOLDERS:

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| <input checked="" type="checkbox"/> Congress | <input checked="" type="checkbox"/> Industry          | <input checked="" type="checkbox"/> States | <input checked="" type="checkbox"/> Tribes | <input checked="" type="checkbox"/> Media | <input checked="" type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input checked="" type="checkbox"/> Local Governments | <input checked="" type="checkbox"/> Public |  |   |  |

#### MOVING FORWARD:

Specific areas of high-profile NAAQS implementation activity anticipated in the coming months include:

- Moving through the initial area designations process for the 2024 PM<sub>2.5</sub> NAAQS.
- Addressing obligations for reclassified 2015 Serious ozone areas.
- Taking action on complex SIPs for areas with significant air quality challenges such as Fairbanks, AK; San Joaquin Valley, CA; and South Coast, CA.