The National Ambient Air Quality Standards

EPA'S PROPOSAL TO UPDATE THE AIR QUALITY STANDARDS FOR GROUND-LEVEL OZONE: DESIGNATIONS, MONITORING AND PERMITTING REQUIREMENTS

On Nov. 25, 2014, the U.S. Environmental Protection Agency (EPA) proposed to strengthen the National Ambient Air Quality Standards (NAAQS) for ground-level ozone, based on extensive scientific evidence about ozone's effects on public health and welfare. The proposed updates will improve public health protection, particularly for children, the elderly, and people of all ages who have lung diseases such as asthma. Today's proposal will expand the ozone monitoring season for many states, and update the Air Quality Index to ensure people are notified when air quality is unhealthy. And it will improve the health of trees, plants and ecosystems.

States would have time to develop and implement plans to meet revised standards, and existing and proposed federal rules will help by making significant strides toward reducing ozone-forming pollution. EPA projections show the vast majority of U.S. counties would meet the proposed standards by 2025 just with the rules and programs now in place or under way.

Improving air quality is a partnership between the federal government, states and tribes. EPA will work closely with state, local and tribal air agencies to implement the ozone standards. As part of the proposal, EPA has outlined initial implementation steps the agency would take if the standards are revised, including the anticipated area designations schedule, along with proposing updates to monitoring and permitting requirements.

DESIGNATING ATTAINMENT AND NONATTAINMENT AREAS

- Once EPA sets a new air quality standard, or revises an existing standard, the Clean Air Act requires EPA to designate areas as meeting the standards (*attainment areas*) or not meeting them (*nonattainment areas*) based on local air quality. The agency also may designate an area as *unclassifiable*, meaning there is not enough information to make a determination. Governors make initial designations recommendations, and EPA works closely with states and tribes as it determines initial designations and boundaries for nonattainment areas.
- All states with nonattainment areas must develop emission inventories and implement a preconstruction permitting program designed to provide additional air quality safeguards for those areas. States with nonattainment areas classified as "Moderate" or higher must develop state implementation plans (SIPs) showing how the areas will meet the standards. These states also must adopt reasonable available control technology (RACT) standards for certain types of emission sources in the nonattainment area.

- Tribes may, but are not required to, develop their own plans for nonattainment areas in Indian country. Where necessary or appropriate to protect air quality, EPA will develop plans for any tribal area that chooses not to develop its own plan.
- EPA will take final action on the proposed standards by Oct. 1, 2015. Based on that date, the agency anticipates the following schedule for making area designations, if EPA revises the standards:
    - By October 1 2016: States (and any tribes that choose to do so) recommend the designation for all areas of the state, or any relevant areas in Indian country, and the boundaries for those areas. To assist states and tribes in preparing their recommendations, EPA intends to update its existing designations guidance shortly after the agency takes final action on today's proposal – and well before states' and tribes' recommendations are due.
    - By June 1, 2017: EPA responds to states' and tribes' initial recommendations and identifies where the agency intends to modify the recommendations. States and tribes will have the opportunity to comment on EPA's response, and to provide new information and analyses for EPA to consider.
    - By October 1, 2017: EPA issues final area designations; those designations likely would be based on 2014-2016 air quality data.
    - 2020 to 2021: States, and any tribes that choose to do so, complete development of implementation plans, outlining how they will reduce pollution to meet the standards. State and tribal plans can include federal measures, and any local or statewide measures needed to demonstrate that a nonattainment area will meet the standards by its attainment date.
    - 2020 to 2037: States are required to meet the primary (health) standard, with deadlines depending on the severity of an area's ozone problem.
    - The Clean Air Act does not specify a deadline for states to meet secondary standards. EPA and states determine that date through the implementation planning process.
- Clean Air Act rules on the books and on the way will help areas meet the proposed standards by cutting emissions of ozone-forming nitrogen oxides (NOx) and volatile organic compounds (VOCs). These include rules that will reduce emissions from the nation's biggest sources of man-made NOx and VOC emissions, such as vehicles, engines and fuels, power plants, industrial processes, stationary engines and products such as solvents and paints.
- In addition, voluntary programs such as the Advance Program and ENERGY STAR help reduce emissions by encouraging states, counties, cities and tribes to take actions to

maintain clean air in their communities and by reducing energy demand. Thirty-five areas in 18 states are participating in the Advance Program, implementing programs to protect air quality, such as minimizing congestion, improving public transit, reducing idling, increasing energy efficiency in buildings, and raising awareness about air quality.

- Actions taken in the next two years that improve air quality will help lower ozone in 2015 and 2016 – two of the three years that will be considered in determining attainment areas.
- EPA intends to propose rules and guidance to assist areas with implementing revised standards within one year after the final standards are issued, or sooner. These rules would address classification and implementation issues such as:
    - Air quality thresholds for nonattainment area classifications, which determine maximum attainment dates and other required emission control programs;
    - State implementation plan (SIP) and attainment demonstration due dates;
    - Developing nonattainment area emissions inventories and attainment demonstrations
- EPA anticipates finalizing any proposed new rules and guidance by the time the agency makes final area designations.

PROPOSED CHANGES TO OZONE MONITORING REQUIREMENTS

- As part of the proposed revisions to the ground-level ozone standards, EPA is proposing several updates to ozone air quality monitoring requirements, including: updating the length of the ozone monitoring season in some states, which will ensure people are notified when air quality is unhealthy; revising requirements for a subset of air quality monitors known as Photochemical Assessment Monitoring Stations (PAMS); and updating the agency's Federal Reference Method for measuring ozone.

Ozone Monitoring Season

- EPA requires ozone monitoring only during the "ozone season" – the time of year when weather conditions are most favorable for ozone formation. This season varies by state: in some states with warmer climates, monitoring is required year-round; however, in states where the climate is colder, ozone monitoring is required for as little as four months during the summertime.
- A review of 2010-2013 data from year-round air quality monitors shows that ozone can be elevated earlier in the spring and last longer into the fall than currently required monitoring seasons in some states. Recently, in the west, ozone concentrations have been above the level of the standards even during the wintertime. More than half of the 1,300 ozone monitors currently are operated year-round. This includes monitors that are required to

operate year-round, based on an area's ozone season, and monitors that are voluntarily operated year-round by states and other organizations.

- EPA is proposing to extend the ozone monitoring season for 33 states, to ensure compliance with both the 2008 ozone standards and the proposed updates, and to ensure citizens are alerted when ozone reaches unhealthy levels. This is particularly important for at-risk groups, including children and people with asthma. Many states are already operating their ozone monitors beyond the required monitoring season. Measured values greater than the level of the standards have always been included in assessments of compliance.
- Under the proposal, the monitoring season would be extended by one month for 24 of the 33 states, with longer extensions in nine others. These include states where ozone can be elevated in the winter: Wyoming, where monitoring would be extended by two months; Colorado, where the ozone season would be extended by five months; and Utah, where monitoring would be required for an additional seven months. In addition, ozone monitors located at the multi-pollutant NCore monitoring sites would be required to operate year-round.
- Under the proposal, EPA Regional Administrators would still be allowed to approve changes to states' ozone monitoring seasons without rulemaking; however, any previous monitoring season waivers would be revoked.
- The expanded monitoring season requirements would become effective January 1, 2017. EPA is seeking comment on requiring the expanded monitoring to begin one year earlier.

Photochemical Assessment Monitoring Stations (PAMS) Network

- Ozone nonattainment areas classified as serious, severe, or extreme are required to operate at least two PAMS monitoring sites. These multi-pollutant monitoring sites are designed to measure ozone, the pollutants that form ozone, and meteorology in order to better understand ozone formation and to evaluate national and local ozone-reduction options.
- During the past 20 years, however, both monitoring technology and priorities have changed. Based on a 2011 evaluation of the PAMS network, along with consultation with EPA's independent science advisers (the Clean Air Scientific Advisory Committee) and an organization of state air agencies, EPA is proposing changes to the PAMS network design requirements to modernize and streamline the network. Some of the proposed changes include:
    - Requiring PAMS monitoring at any existing NCore site in an ozone nonattainment area instead of the current PAMS network requirements. (NCore is a multi-pollutant monitoring network for particles, gases and meteorology.) This change would improve

the geographic distribution of PAMS sites, while reducing redundancy in the existing network.

- Requiring states that operate PAMS sites to measure nitrogen dioxide, and to measure and report hourly speciated VOC measurements, using a type of monitor known as an automated gas chromatograph. EPA also is requesting comment on whether to allow the use of other, more traditional VOC monitors.
- Establishing Enhanced Monitoring Plans to allow monitoring agencies with nonattainment areas the flexibility to determine and collect the additional data they need to better understand their ozone problems. These plans would be required for any ozone nonattainment area.

Federal Reference Methods

- To determine whether an area is meeting the ozone standard, ozone monitoring data must be obtained using either a Federal Reference or Federal Equivalent monitoring method.
- A Federal Reference Method uses monitoring equipment and analytical techniques that together are considered the "gold standard" for measuring a pollutant in the air. EPA uses these methods to evaluate other equipment and alternative analytical methods, which vendors may make available for states to purchase. When approved, these methods are known as Federal Equivalent Methods.
- EPA is proposing to update its Federal Reference Method for ozone to include an additional method that is based on advanced technology and monitoring methods. Current Federal Reference and Federal Equivalent ozone monitors will continue to meet EPA requirements under the proposed change, so states would not be required to replace their existing ozone monitors.

PROPOSED CHANGES TO PSD PERMITTING REQUIREMENTS

- Under EPA's Prevention of Significant Deterioration (PSD) program, new or expanding sources of air pollution, such as factories, industrial boilers or power plants, must obtain permits to ensure they use the most effective pollution controls and do not significantly worsen air quality in areas with clean air.
- As part of the proposed rule, EPA is proposing a grandfathering provision for certain preconstruction permitting requirements to ensure that any changes to the ozone standards will not delay final processing of certain pending permit applications. This provision, similar to the provision finalized in EPA's 2012 particle pollution standards, would apply to applications for PSD permits that have advanced through the permitting process when the ozone standards are finalized.

- To receive a PSD permit, a source must meet several requirements, including demonstrating that emissions from a proposed project do not cause or contribute to a violation of any national ambient air quality standard. This requirement generally applies to the air quality standards -- including any revised standards -- that are in effect at the time the permit is issued.
- EPA is proposing a grandfather provision that would apply to PSD permit applications if either:
    - The permitting agency has formally determined the application to be complete on or before the date EPA signs a final rule; or
    - The public notice for a draft permit or preliminary determination has been published prior to the date revised ozone standards become effective (60 days after publication in the Federal Register).
    - By these stages in the process, applicants and permitting agencies have completed much – or all – of the analytical work required based on the standard in effect when the application was submitted.
- Permit applications that have not met either of these criteria would have to demonstrate that the proposed project does not cause or contribute to a violation of any revised ozone standards that are in effect when the permit is issued.
- The proposed grandfathering provision would become part of EPA permitting rules but also could apply to permits issued by states and local agencies with approved PSD permitting programs.
- The grandfathering provision would apply only to the requirement to demonstrate that a proposed project does not cause or contribute to a violation of any revised ozone standards. Proposed projects would continue to be subject to all other PSD requirements, including Best Available Control Technology (BACT).
- EPA is not proposing to revise nonattainment New Source Review permit requirements as part of this rule. If revisions are needed, the agency will propose a rule at a later date.

FOR MORE INFORMATION

- To read the proposed rule and other fact sheets: http://www.epa.gov/glo/actions.html
- Instructions for commenting on the proposal: http://epa.gov/glo/pdfs/20141125fs-comment.pdf
- Information on the Advance Program http://www.epa.gov/ozoneadvance/
- About Energy Star: http://www.energystar.gov