

Lawyer Insights

EPA Is Considering Stringent New Air Quality Standards. What Would They Mean?

By Lucinda Langworthy

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The Environmental Protection Agency (EPA) promulgates and implements primary and secondary National Ambient Air Quality Standards (NAAQS) for six common air pollutants under section 109(b) of the Clean Air Act (CAA or Act). Primary NAAQS protect the public health, while secondary NAAQS protect the public welfare. Secondary NAAQS have not traditionally been more stringent than primary ones, but EPA's staff and science advisors are developing recommendations for secondary NAAQS that would differ from and be more stringent than the primary ones. The possibility of more stringent secondary NAAQS raises significant questions concerning the implementation of such standards.

Specifically, EPA is in the process of evaluating the adequacy of its secondary NAAQS for fine particulate matter (PM_{2.5}), nitrogen oxides, and sulfur oxides to protect against adverse ecological effects. Pursuant to a [Consent Decree](#), EPA must sign a notice of proposed rulemaking concerning these NAAQS by February 9, 2024, and a notice of final rulemaking on the standards no later than December 10, 2024.

In preparation for that rulemaking proposal, [EPA's air office staff released draft recommendations](#) this past June for revisions to the secondary NAAQS for each of these pollutants. EPA staff's draft recommendations include reducing the level of the annual secondary PM_{2.5} NAAQS from 15 micrograms per cubic meter (µg/m³) to 12 µg/m³. This recommendation would reduce the level of the annual secondary PM_{2.5} NAAQS only to match the current primary PM_{2.5} NAAQS, but other staff recommendations involved secondary NAAQS that would differ substantially from the primary NAAQS. The staff also recommended reducing the level of annual secondary NAAQS for nitrogen dioxide (NO₂) from 53 parts per billion (ppb) to "as low as 40 ppb." Such a standard would clearly be more stringent than the current 53 ppb annual primary NO₂ NAAQS. In addition, the staff recommended reducing the level of the current three-hour secondary NAAQS for sulfur dioxide (SO₂) from 500 ppb to within a range of 200 ppb to 400 ppb or adding an annual secondary SO₂ NAAQS in the range of 10 ppb to 22 ppb. EPA currently has no primary or secondary annual NAAQS for SO₂.

In reviewing these staff recommendations, the independent scientists of EPA's Clean Air Scientific Advisory Committee (CASAC), who are charged by section 109(d)(2) of the CAA with recommending appropriate NAAQS revisions to EPA's administrator, are poised to go even further. Although their recommendations have not yet been formalized in writing, the majority of CASAC members have agreed on recommending an annual secondary PM_{2.5} NAAQS in the range of 6 µg/m³ to 10 µg/m³, well below the current 12 µg/m³ primary NAAQS and potentially below any revised primary NAAQS currently under consideration by EPA. They have also agreed to recommend that the level of the 24-hour PM_{2.5} secondary NAAQS be reduced to 25 µg/m³, significantly more stringent than the 24-hour primary NAAQS of 35 µg/m³. In addition, they have agreed to recommend an annual secondary NO₂ NAAQS of less than 20 ppb, a level that is less than half the one EPA's air office is recommending. Finally, these CASAC members have endorsed an annual secondary NAAQS for SO₂ toward the bottom of the range

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recommended by EPA staff, one of 10 ppb to 15 ppb. (One member of CASAC has disagreed with these recommendations and instead intends to recommend setting the secondary NAAQS equal to the primary NAAQS for PM_{2.5}, NO₂, and SO₂.) Whatever their scientific merits, promulgation of these NAAQS would raise novel questions concerning requirements for implementation of a controlling secondary NAAQS. In some ways, the CAA specifies that secondary NAAQS are to be implemented similarly to primary NAAQS. Thus, section 107(d) requires designation of areas as nonattainment, attainment or unclassifiable for each NAAQS, secondary, as well as primary. Furthermore, section 110(a) of the Act requires that states adopt and submit to EPA a State Implementation Plan (SIP) within three years after promulgation of either a primary or secondary NAAQS. This SIP must, among other requirements, provide for “implementation, maintenance, and enforcement” of the NAAQS and prohibit emissions activity within the state that “contribute[s] significantly to nonattainment or interfere[s] with maintenance by any other State with respect to any such national primary or secondary ambient air quality standard.” CAA §110(a)(2)(d)(i)(I). The latter requirement provides the basis for EPA’s recent highly controversial federal implementation plans requiring reduced emissions of ozone precursors from multiple industries across 23 states for purposes of attaining primary and secondary NAAQS promulgated in 2015. See Federal “Good Neighbor Plan” for the 2015 Ozone National Ambient Air Quality Standards, 88 Fed. Reg. 36,654 (June 5, 2023).

On the other hand, the Act specifies some aspects of secondary NAAQS implementation that differ from those for primary NAAQS. For example, as a general matter, section 172(a)(2) of the Act specifies a five-year deadline for attaining primary NAAQS that the administrator may extend to 10 years but provides only that secondary NAAQS must be met “as expeditiously as practicable.” Section 188(c)—a provision that applies to PM_{2.5} nonattainment areas—provides a six-year attainment deadline for areas classified as Moderate and a 10-year deadline for areas classified as Serious. This provision does not distinguish between nonattainment areas for primary and secondary NAAQS and arguably applies to both.

Whether other CAA provisions related to NAAQS implementation apply to secondary NAAQS as well as to primary ones is even less clear—some of these interpretations concern requirements for nonattainment area SIPs. Which, if any, of the Act’s requirements for control of sources in nonattainment areas apply to secondary NAAQS as well as primary ones? Although there may be superficial appeal to saying that unless a requirement is specified as applying solely to primary NAAQS, it also automatically applies to secondary NAAQS, a thoughtful analysis calls such an approach into question. Section 172 (c)(2) requires that SIPs for nonattainment areas provide for reasonable further progress (RFP). Section 171 (1), however, defines RFP as “such annual incremental reductions in emissions . . . as are required . . . for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date.” How can RFP be determined, and therefore required, in the SIP for a secondary NAAQS, given that the Act does not specify an applicable attainment date for such a NAAQS? Furthermore, section 172 (c)(9) requires a nonattainment area SIP include contingency measures that are automatically triggered if an area fails to achieve RFP. But why would such measures be required if RFP cannot be determined? The fact that section 191(a), which was added to the Act in the 1990 amendments and specifies “Additional Provisions for Areas Designated Nonattainment for Sulfur Oxides, Nitrogen Dioxide, or Lead” requires SIPs addressing the requirements of Part D of Title I of the Act only for primary NAAQS strengthens the argument that the requirements of Part D, including the RFP and contingency measure requirements in section 172(c), do not apply to nonattainment areas for secondary NAAQS.

Comparable questions arise concerning measures applicable to attainment or unclassifiable areas. Must prevention of significant deterioration (PSD) permitting applications in such areas address secondary NAAQS? Section 165 (a)(3) of the Act requires a permit applicant to demonstrate that the source to be

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permitted “will not cause, or contribute to,” a NAAQS. As was the case for section 172 requirements in nonattainment areas, the Act does not specify whether this requirement applies to both primary and secondary NAAQS. Section 165(b), however, provides that, for certain sources, a permit applicant who demonstrates that the source “will not cause or contribute to ambient air quality levels in excess of the national secondary ambient air quality standard” need not demonstrate that the source will not cause or contribute to a violation of a PSD increment or “any other applicable emission standard or standard of performance.” Can this be read to imply that a demonstration of compliance with secondary NAAQS is not otherwise required? Or might it imply that compliance with secondary NAAQS must always be demonstrated and that, in limited circumstances, this demonstration provides an exemption from specific other permitting requirements? EPA has not provided any guidance.

Given that the Act requires states to submit certain SIP elements within three years after promulgation of a new NAAQS, see CAA § 100(a), and other SIP components within specified periods after nonattainment designations, see, e.g., CAA §§ 172, 188, 190, EPA should resolve these implementation questions no later than promulgation of any more stringent or distinct secondary NAAQS. At a minimum, however, the Agency must provide states with implementation guidance for such NAAQS sufficiently in advance of the deadlines for them to submit SIPs. The absence of such timely direction from EPA will inevitably delay effective implementation of any such new standards.

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