

Process to Set National Ambient Air Quality Standards (NAAQS)

- The Clean Air Act (CAA) requires that EPA set National Ambient Air Quality Standards (NAAQS), expressed as ambient concentration levels based on levels “requisite to protect” human health and welfare.
- NAAQS are established for six specific criteria pollutants (ozone; particulate matter (PM) and fine PM which are 2.5 microns or smaller; sulfur dioxides; nitrogen oxides (NO_x); lead; and carbon monoxide).
- The NAAQS set to protect human health is called the primary standard, while the NAAQS established to protect welfare impacts, such as those on vegetation and visibility, is called the secondary standard. The primary standards have mandatory deadlines for attainment, whereas the secondary standards must be met as soon as practicable.
- The CAA requires EPA to review and, if appropriate, revise the NAAQS every five years.
- Under the current NAAQS review process, including the process applied for the current review of the Ozone NAAQS, EPA develops a Criteria Document (CD), which assesses current scientific information concerning a criteria pollutant’s health and welfare impacts. Although not required by statute, EPA also publishes a Staff Paper (SP), a policy document that makes recommendations to the Administrator concerning the standard’s levels.
- The Clean Air Scientific Advisory Committee (CASAC) reviews both the CD and SP documents and typically engages in multiple drafts, followed by a final letter to the Administrator, which contains assessment of the state of the science and suggests a range of standard levels for a revised standard if it finds that the existing standard needs to be changed. *
- EPA allows for extensive comments from the scientific community, interest groups, industry, and the public. After considering these advance comments, EPA will proceed to a proposed rule for additional comment on its proposed determinations, before promulgating its final rule on whether and how to revise a NAAQS.
- During the five-year review process, EPA is not supposed to consider the feasibility or cost of attaining any changes to the standard. These

* EPA recently announced changes to the NAAQS review process, which will take effect beginning with its pending review of the NAAQS for lead (Pb). Under the revised process, an Integrated Science Assessment (ISA) will replace the CD, while the Staff Paper will be replaced by a Policy Assessment reflecting management views. The Policy Assessment will be published in the Federal Register as an Advanced Notice of Public Rulemaking (ANPRM). There will be a period for public comment to respond to the ANPRM.

considerations are left for the next step, as States develop State Implementation Plans (SIP) to attain the standard. The review is focused on developments in the scientific evidence relevant to determining the “requisite” outdoor air concentration to protect human health and welfare.

Meeting the National Ambient Air Quality Standards (NAAQS)

- NAAQS criteria pollutant ambient levels are measured by monitors placed in counties and metropolitan areas to determine if standards are met and the area is "in attainment."
- Once a standard is finalized, States are required to develop State Implementation Plans (SIP) that demonstrate how areas within each state will attain NAAQS by using a combination of "state" and "federally" imposed controls and measures affecting emission sources. Depending on how far out of attainment a county or area is determined to be, different deadlines to reach attainment may be set. The SIP must be submitted to EPA for formal approval.
- As part of the SIP, emission standards are set for “state-controlled” sources, and enforced on businesses through construction and operating permits, on transportation systems, and sometimes on commercial and consumer product content.
- A number of states have imposed stationary source controls on existing and new sources that are more stringent than the federal NAAQS standards would require.
- In addition to State Implementation Plans, EPA may also directly impose enforceable requirements on various “federally-controlled” sources to facilitate NAAQS attainment with uniform national requirements (instead of state-by-state regulations). For example, EPA promulgated regional and national rules, such as passenger vehicle Tier II emission standards, 2007 Heavy-Duty Truck Emission Regulations, the NO_x SIP Call, Clean Air Interstate Rule or CAIR, and low sulfur gasoline and ultra-low sulfur diesel standards.
- Many of these controls are put into place to reduce the criteria pollutant and its chemical “precursors” (for example, for ozone, one category of precursor includes certain volatile organic compounds [VOC]).
- Regardless of these controls and ambient levels declining, increasingly stringent Ozone and PM standards have prompted states to resort to enacting new types of measures, including “boutique” fuel mandates, to demonstrate that their areas will attain the ozone and PM_{2.5} NAAQS on schedule. This

has resulted in concern about a patchwork of requirements resulting in added expense to fuel producers and consumers.

- During the SIP development, States consider the feasibility and cost of control and technology availability and economic costs of attainment plans. In more and more instances, States are finding measures available to submit attainment plans for existing ozone standards inadequate. As a consequence, many local areas will require attainment deadline extensions for the existing 8-hour ozone standard level, and even then, be hard pressed to create practical achievable attainment plans.

Failure to Meet the National Ambient Air Quality Standards (NAAQS)

- States and emissions sources can incur penalties for failure to submit a SIP on time, submitting an un-approvable SIP, failing to complete measures, and failing to attain by deadlines.
- These penalties, some of which apply to States and some to businesses, can range from halting Federal transportation funding of billions of dollars, to imposing annual emissions fees on industrial sources exceeding \$100 million dollars.

Concerns with the NAAQS Review Process

- The statutory requirement for review of each NAAQS every five years has proven in practice to “crowd” the ability for EPA to finalize and implement revisions. The tight timing also limits the ability to complete a reasonable evaluation of the benefits and any adverse impacts from the implementation of a revision before the Agency must undertake *another* cycle of review. Often, the volume of scientific health and environmental effect data that must be reviewed is considerable and complex, requiring significant resources for government and also affected stakeholders.
- Therefore it is important for this review that the process not fail to carefully review the entirety of the scientific information and the associated uncertainties. The review must articulate EPA's views of the weight it is giving to ALL the various significant data for public consideration.