



EPN Comments on Clean Air Scientific Advisory Committee Nominations July 28, 2025

The [Environmental Protection Network](https://environmentalprotectionnetwork.org) (EPN) harnesses the expertise of more than 700 former Environmental Protection Agency (EPA) career staff and confirmation-level appointees from Democratic and Republican administrations to provide the unique perspective of former regulators and scientists with decades of historical knowledge and subject matter expertise.

Overview

EPN's comments discuss important factors that EPA should consider in the selection of the seven-member Clean Air Scientific Advisory Committee (CASAC). High-quality, independent science reviews are essential for EPA to protect human health and the environment and for restoring the scientific credibility of the agency. Given the complexities and multidisciplinary attributes of all criteria pollutant reviews, we also stress the critical need to use pollutant-specific expert panels to advise the CASAC in all National Ambient Air Quality Standards (NAAQS) reviews.

Comments

Section 109 of the Clean Air Act specifies that CASAC consist of seven members with at least one each of the following three categories: a member of the National Academy of Sciences, a physician, and a person representing state air pollution control agencies. This committee is required to conduct periodic reviews of the scientific criteria supporting NAAQS as well as the standards themselves, making recommendations to the EPA administrator on new or revised standards. These core duties, as well as additional requirements for the committee in section 109, clearly indicate that all members must have strong scientific and technical credentials in the most critical disciplines that drive such NAAQS reviews.

In calling for nominations, the Science Advisory Board (SAB) staff called for experts in nine disciplines: air quality, biostatistics, ecology, environmental engineering, epidemiology, exposure assessment, medicine, risk assessment, and toxicology. EPA's call is consistent with the emphasis that most NAAQS reviews have given to assessing critical areas of science in setting primary and secondary standards. In addition, it makes clear that not all disciplines that are important in reviews of primary and secondary NAAQS can be represented on the seven-member CASAC.

The highest priority should be placed on complementing the statutory members of CASAC with pollutant-specific expert panels for all NAAQS reviews. For decades, these panels have successfully worked closely with CASAC to provide needed scientific expertise for the standards under review, as well as a broader set of perspectives on the science and standards. While the specific expertise needed on such panels will vary by pollutant, in general, they should include criteria used to select CASAC members. Consistent with well-established and validated past practices, the review of conflicts of interest for new members should be given the priority that it has been traditionally given.

While EPN is not commenting on specific candidates from the list of 64 applicants, we do propose the following criteria EPA should consider in selecting CASAC members as well as members of the pollutant-specific panels. These include:

1. **Strong scientific expertise and experience**, thereby ensuring that only the best scientists from academia, industry, and the private sector are rigorously vetted for conflicts of interest. **CASAC is a scientific expert committee, not a representative stakeholder committee.** The purpose of CASAC is for the federal government to obtain a consensus opinion of experts in a given field. As such, the selection criteria for members of CASAC should focus on breadth, depth, and diversity of scientific expertise, experience, and perspectives. CASAC is not a “representative” committee and therefore is not intended to reflect the positions and observations of interested groups or stakeholders. Therefore, CASAC membership should not emphasize, for example, state affiliation (other than as minimally required by Section 109) or geographic representation. EPA has an existing representative committee, the Clean Air Act Advisory Committee (CAAAC) that is the appropriate venue for input regarding representative or stakeholder views on implementation of NAAQS.
2. **Specific expertise needed for CASAC.** Based on our experience in NAAQS reviews, we see a particular need that the committee itself include expertise in epidemiology, biostatistics, human clinical studies, statistics, toxicology, air quality (modeling, exposure, monitoring), exposure assessment, medicine, risk assessment, environmental engineering, and ecology. Individuals with significant experience in more than one discipline, e.g., epidemiology and human clinical studies, are of particular interest. The call for nominations further notes “[t]he SAB Staff Office is especially interested in scientists with expertise described above who have knowledge and experience relating to criteria pollutants (carbon monoxide, lead, nitrogen oxides, ozone, particulate matter, and sulfur oxides).”
3. **CASAC members should be recognized experts in relevant fields.** Per the call for nominations: “Members of the CASAC constitute a distinguished body of non-EPA scientists and engineers who are nationally and internationally recognized experts in their respective fields” and they should have “[d]emonstrated scientific credentials and disciplinary expertise in relevant field.”
4. **CASAC members should be unconflicted.** Per the call for nominations, “absence of financial conflicts of interest and absence of an appearance of a loss of impartiality.”
5. **Variety of expertise to meet requirements of Clean Air Act Sections 108 and 109.** Section 108 of the Clean Air Act requires that “air quality criteria for an air pollutant shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities.” Section 109 requires that primary (health) standards based on “such criteria and allowing an adequate margin of safety, are requisite to protect the public health.” As noted in EPA policy assessments, “In addressing the requirement for an adequate margin of safety, the EPA considers such factors as the nature and severity of the health effects involved, the size of the sensitive population(s), and the kind and degree of uncertainties.” As stated, for example, in the 2019 Integrated Science Assessment for particulate matter, “the risk of health effects from exposure to an ambient air pollutant may be modified as a result of intrinsic (e.g., pre-existing disease, genetic factors) or extrinsic factors (e.g., sociodemographic or behavioral factors), differences in internal dose (e.g., due to variability in ventilation rates or exercise behaviors), or differences in exposure to air pollutant concentrations (e.g., more time spent in areas with higher ambient concentrations).” Thus, scientific experts with a variety of expertise, experience, and perspectives on these factors and how they modify risk are critical to the NAAQS review.

6. **Pollutant-specific expertise for ad hoc advisory panels.** The scientific review of NAAQS in conformance with Sections 108 and 109 requires breadth and depth of scientific expertise. However, the statutory CASAC is limited to only seven members, and seven members are inadequate to have the needed breadth, depth, and variety of scientific expertise, experience, and perspectives. For decades, CASAC has been augmented with ad hoc review panels that provide advice through the chartered CASAC on the scientific and technical aspects of air quality criteria and the primary and secondary National Ambient Air Quality Standards (NAAQS). Per prior EPA requests for nominations, selection criteria to be used for panel membership include:
- a. Scientific and/or technical expertise, knowledge, and experience (primary factors);
 - b. Availability and willingness to serve;
 - c. Absence of financial conflicts of interest;
 - d. Absence of an appearance of a lack of impartiality;
 - e. Skills working in committees, subcommittees and advisory panels; and
 - f. For the panel as a whole, diversity of expertise and viewpoints. CASAC should be augmented with review panels for the ongoing review activities pertaining to lead, ozone, and nitrogen dioxide and for any other review activities that are initiated.

In examining the list of 64 candidates, we see a number of highly-qualified candidates with the scientific expertise, leadership, credibility, and experience needed to ensure continuity and high-quality credible reviews and recommendations required of the CASAC. EPA will, however, need to consider additional candidates to provide the breadth, depth, and variety of expertise, experience, and perspectives needed for pollutant-specific panels to support ongoing and upcoming NAAQS reviews. Thank you for the opportunity to provide these comments.