

ATTACHMENT A: OVERARCHING CONTEXT FOR REVIEW OF THE PARTICULATE MATTER (PM) NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

This following is excerpted from the undated memorandum from Erika N. Sasser to Aaron Yeow pertaining to the CASAC review of the draft PM Policy Assessment.¹ Text in addition to that excerpted from the memorandum is *italicized*.

Two sections of the Clean Air Act (CAA) govern the establishment and revision of the NAAQS. Section 108 (42 U.S.C. 7408) directs the Administrator to identify and list certain air pollutants and then to issue air quality criteria for those pollutants.² *Additionally, Section 108 states that the criteria “shall accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health and welfare which may be expected from the presence of such pollutant in the ambient air.” The NAAQS must be based on these criteria.*

Section 109 [42 U.S.C. 7409] directs the Administrator to propose and promulgate “primary” and “secondary” NAAQS for pollutants for which air quality criteria are issued [42 U.S.C. § 7409(a)]. *Section 109 requires the EPA Administrator to “complete a thorough review” of the NAAQS at five-year intervals.* Section 109(b)(1) defines primary standards as ones “the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health.”³ Under section 109(b)(2), a secondary standard must “specify a level of air quality the attainment and maintenance of which, in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of [the] pollutant in the ambient air.”⁴

In setting primary and secondary standards that are “requisite” to protect public health and welfare, respectively, as provided in section 109(b), the EPA’s task is to establish standards that are neither more nor less stringent than necessary. In so doing, the EPA may not consider the costs of implementing the standards.⁵ Likewise, “[a]ttainability and technological feasibility are not relevant considerations in the promulgation of national ambient air quality standards.”⁶ At the same time, courts have clarified the EPA may consider “relative proximity to peak background ... concentrations” as a factor in deciding how to revise the NAAQS in the context of considering

¹ Sasser, E.N., CASAC Review of the document titled Policy Assessment for Review of the National Ambient Air Quality Standards for Particulate Matter – External Review Draft, Memorandum to A. Yeow, U.S. Environmental Protection Agency, Research Triangle Park, NC, undated, [https://yosemite.epa.gov/sab/sabproduct.nsf/264cb1227d55e02c85257402007446a4/64C246444C9CC319852584430045E365/\\$File/Charge+memo+and+questions+for+draft+PA.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/264cb1227d55e02c85257402007446a4/64C246444C9CC319852584430045E365/$File/Charge+memo+and+questions+for+draft+PA.pdf) (accessed September 13, 2019).

² In the current NAAQS process, the air quality criteria are represented by the Integrated Science Assessment.

³ The legislative history of section 109 indicates that a primary standard is to be set at “the maximum permissible ambient air level . . . which will protect the health of any [sensitive] group of the population,” and that for this purpose “reference should be made to a representative sample of persons comprising the sensitive group rather than to a single person in such a group.” S. Rep. No. 91-1196, 91st Cong., 2d Sess. 10 (1970).

⁴ Under CAA section 302(h) (42 U.S.C. § 7602(h)), effects on welfare include, but are not limited to, “effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.”

⁵ See generally, *Whitman v. American Trucking Associations*, 531 U.S. 457, 465-472, 475-76 (2001).

⁶ *American Petroleum Institute v. Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981).

standard levels within the range of reasonable values supported by the air quality criteria and judgments of the Administrator.⁷

Section 109(d)(2)(B) provides that the independent scientific review committee “shall complete a review of the criteria...and the national primary and secondary ambient air quality standards...and shall recommend to the Administrator any new...standards and revisions of existing criteria and standards as may be appropriate....” Since the early 1980s, this independent review function has been performed by the CASAC of the EPA’s Science Advisory Board.⁸ A number of other advisory functions are also identified for the committee by section 109(d)(2)(C), which reads:

Such committee shall also (i) advise the Administrator of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised national ambient air quality standards, (ii) describe the research efforts necessary to provide the required information, (iii) advise the Administrator on the relative contribution to air pollution concentrations of natural as well as anthropogenic activity, and (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

⁷ American Trucking Associations, Inc. v. EPA, 283 F.3d 355, 379 (D.C. Cir. 2002).

⁸ *CASAC is administered by the EPA Science Advisory Board office staff, but is not part of the EPA Science Advisory Board. CASAC is chartered under the authority of the Clean Air Act. The SAB is separately chartered under the authority of the Environmental Research, Development, and Demonstration Authorization Act.*