



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

AIR QUALITY PLANNING

OFFICE OF
AND STANDARDS

October 31, 2019

MEMORANDUM

SUBJECT: CASAC Review of the document titled *Policy Assessment for the Ozone National Ambient Air Quality Standards, External Review Draft*

FROM: Erika N. Sasser, Director
Health and Environmental Impacts Division
Office of Air Quality Planning and Standards
United States Environmental Protection Agency

TO: Aaron Yeow, Designated Federal Officer
Clean Air Scientific Advisory Committee
EPA Science Advisory Board Staff Office

Attached is the document titled *Policy Assessment for the Ozone National Ambient Air Quality Standards, External Review Draft* (draft IRP) prepared by the Environmental Protection Agency's (EPA) Office of Air Quality Planning and Standards (OAQPS) as part of EPA's ongoing review of the national ambient air quality standards (NAAQS) for ozone (O₃). The draft PA will be reviewed by the Clean Air Scientific Advisory Committee (CASAC) at a public meeting scheduled for the first week of December 2019. I am requesting that you forward this document to the Committee to prepare for the December meeting.

The draft PA is being made available to the CASAC in the form of the attached electronic file. The document is also available from the EPA website at <https://www.epa.gov/naaqs/ozone-o3-air-quality-standards>, under "Policy Assessments from Current Review." The attachments to this memorandum provide additional context and specific charge questions to guide the CASAC's review of the draft PA.

We look forward to discussing the draft PA with the CASAC at our upcoming meeting. Should you have any questions regarding the document, please contact me (919-541-3889; email sasser.erika@epa.gov) or Dr. Deirdre Murphy on my staff (919-541-0729; email murphy.deirdre@epa.gov).

cc: Tom Brennan, SAB, OA
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Attachment: Background and charge questions for the CASAC review of the *Policy Assessment for the Ozone National Ambient Air Quality Standards, External Review Draft*

Overarching Context for the Review of the Ozone NAAQS

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.¹ 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(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.”² 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.”³ 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.⁴ Likewise, “[a]ttainability and technological feasibility are not relevant considerations in the promulgation of national ambient air quality standards.”⁵ 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 standard levels within the range of reasonable values supported by the air quality criteria and judgments of the Administrator.⁶

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. 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.

¹ In the current NAAQS process, the air quality criteria are represented by the Integrated Science Assessment.

² 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).

³ 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.”

⁴ See generally, *Whitman v. American Trucking Associations*, 531 U.S. 457, 465-472, 475-76 (2001).

⁵ *American Petroleum Institute v. Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981).

⁶ *American Trucking Associations, Inc. v. EPA*, 283 F.3d 355, 379 (D.C. Cir. 2002).

Referencing the CAA, the May 2018 NAAQS process memorandum (Pruitt, 2018) identified a set of general charge questions to be posed to the CASAC in the NAAQS review process. Those questions are as follows:

- *Are there areas in which additional knowledge is required to appraise the adequacy and basis of existing, new, or revised NAAQS? Please describe the research efforts necessary to provide the required information.*
- *What scientific evidence has been developed since the last review to indicate if the current primary and/or secondary NAAQS need to be revised or if an alternative level or form of these standards is needed to protect public health and/or public welfare? Please recommend to the Administrator any new NAAQS or revisions of existing criteria and standards as may be appropriate. In providing advice, please consider a range of options for standard setting, in terms of indicators, averaging times, form, and levels for any alternative standards, along with a description of the alternative underlying interpretations of the scientific evidence and risk/exposure information that might support such alternative standards and that could be considered by the Administrator in making NAAQS decisions.*
- *Do key studies, analyses, and assessments which may inform the Administrator's decision to revise the NAAQS properly address or characterize uncertainty and causality? Are there appropriate criteria to ensure transparency in the evaluation, assessment, and characterization of key scientific evidence for this review?*
- *What is the relative contribution to air pollution concentrations of natural as well as anthropogenic activity? In providing advice on any recommended NAAQS levels, please discuss relative proximity to peak background levels.*
- *Please 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 NAAQS.*

Context for the Draft PA

The draft PA for the current O₃ NAAQS review is being transmitted to CASAC for review. The PA is prepared by the OAQPS. When final, the PA provides an evaluation, for consideration by the EPA Administrator, of the policy implications of the currently available scientific information assessed in the ISA, of any quantitative air quality, exposure or risk analyses based on the ISA findings, and related limitations and uncertainties. Ultimately, a final decision on the O₃ NAAQS will reflect the judgments of the Administrator. The role of the PA is to help “bridge the gap” between the Agency’s scientific assessment in the ISA and the quantitative analyses, and the judgments required of the EPA Administrator in determining whether it is appropriate to retain or revise the standards. Review of the draft PA is also intended to facilitate CASAC advice to the Agency and recommendations to the Administrator on the adequacy of the existing standards or revisions that may be appropriate to consider, as provided for in the CAA.

Specific Charge Questions for Review of the Draft PA

1. **Chapter 1 – Introduction:** To what extent does the CASAC find that the information in Chapter 1 is clearly presented and that it provides useful context for the review?

2. **Chapter 2 –Air Quality:** To what extent does the CASAC find that the information in Chapter 2 is clearly presented and that it provides useful context for the review?
3. **Chapter 3 – Review of the Primary Standard:** What are the CASAC views on the approach described in chapter 3 to considering the health effects evidence and the risk assessment in order to inform preliminary conclusions on the primary standard? What are the CASAC views regarding the key considerations for the preliminary conclusions on the current primary standard?
4. **Chapter 4 –Review of the Secondary Standard:** What are the CASAC views on the approach described in chapter 4 to considering the evidence for welfare effects in order to inform preliminary conclusions on the secondary standard? What are the CASAC views regarding the key considerations for the preliminary conclusions on the current secondary standard?
5. **Chapters 3 and 4:** What are the CASAC views regarding the areas for additional research identified in Chapters 3 and 4? Are there additional areas that should be highlighted?