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2022 CASAC Ozone Review Panel

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
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Attention:

Aaron Yeow, Designated Federal Officer
Clean Air Scientific Advisory Committee
EPA Science Advisory Board Staff Office
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June 2, 2022

**Re: Public Meeting of the Clean Air Scientific Advisory Committee Ozone Panel:
CASAC Review of the document titled *Policy Assessment for the Reconsideration of the Ozone National Ambient Air Quality Standards, External Review Draft***

To the 2022 CASAC Ozone Review Panel:

On September 30, 2020, we, the North American Chapter of the International Society for Environmental Epidemiology (ISEE), informed the EPA Administrator at the time that we disagree with the EPA's proposed decision to retain, without revision, the primary (health-based) and secondary (welfare-based) Ozone (O₃) National Ambient Air Quality Standards (NAAQS). **Attached to this letter** is a copy of the 2020 letter we sent to the then EPA Administrator, explaining the reasons for our disagreement with EPA's proposed decision. In the letter, we urged...

“that the EPA recognize its’ responsibility for protecting the health of Americans, withdraw its decision to retain the ozone standard at 70 ppb, and implement a lower short-term ozone standard based on current epidemiological evidence. Such a lower limit would not only protect the health of millions of Americans, especially those most at-risk, but also benefit our nation’s environment and economy.”

Given our stance, we were delighted to hear the announcement in October 2021, that the EPA will reconsider the 2020 decision to retain the primary and secondary Ozone (O₃) NAAQS. Unfortunately, the EPA's April 2022 draft Policy Assessment document recommends retaining the current ozone standard, instead of strengthening it. This decision is discouraging—a position we arrived at after having carefully reviewed the EPA's rationales for retaining the standards, without revisions, as outlined in Chapter 3 (*Reconsideration of the Primary Standard*) and Chapter 4 (*Reconsideration of the Secondary Standard*) of the draft Policy Assessment document.

At numerous instances in Chapters 3 and 4 of the draft Policy Assessment document, the EPA provides comprehensive analysis of scientific knowledge that support the conclusion that ozone standards lower than the current standard of 70 ppb would provide greater public health benefits or even save lives, especially with regards to the primary standard. Nonetheless, the document also made certain to stress the fact that the extent to which the protection provided by the current Ozone standards (primary and secondary) is judged to be adequate will depend on science policy judgments and public health policy judgments, among other factors, and that ultimately, such judgments are left to the discretion of the Administrator. We fully acknowledge the Administrator's discretionary powers in the matters of NAAQS standards setting, we also acknowledge the investments and efforts they have to bring to bear, together with their EPA team, in order to arrive at a decision that moves them ever closer to fully achieving their primary "*responsibility of protecting the health of Americans.*"

Again, we have attached a copy of our 2020 letter to this letter. In the letter, you will find detailed explanations for why we are urging the EPA to implement a lower short-term ozone standard, based on current epidemiological evidence.

Despite the above noted (and attached) evidence, the April 2022 Policy Assessment (PA) for the Reconsideration of the Ozone National Ambient Air Quality Standards External Review Draft indicates that "this information continues to provide support for the current standard, and thus supports consideration of retaining the current standard, without revision." (page 3-101). In support of this, the document apparently relies heavily on risk analysis based on the most recent MSS-FEV1 model (McDonnell et al., 2013) to estimate individual lung function risk (section 3D.2.8.2.2). We have several key comments on this:

- The PA document needs to make clearer exactly how the recommendation relies on chamber studies vs. epidemiology.
- While chamber studies are very useful for testing biological plausibility, they should not be relied upon for setting the standard concentration level, as they are not based on consideration of members of the most sensitive populations, which the air quality standards are intended to protect with a margin of safety.
- Epidemiology, which is based on the experiences of real people in the real world, including the most sensitive individuals (unlike chamber studies), is the primary science upon which to rely for the standard level (concentration) setting. In particular, they include the elderly, whose mortality and respiratory hospital admissions have been associated with O₃. These are far more serious than short term changes in FEV₁.
- Therefore, the above (and attached) information provided documents that the epidemiology science, supported by chamber studies, indicate that present primary O₃ standard should be reduced to a level below 70 ppb to more appropriately protect the public health with a margin of safety, as stipulated by the Clean Air Act.

Sincerely,

George D. Thurston, NYU School of Medicine, New York, NY
Abiodun Oluyomi, Baylor College of Medicine, Houston, TX
Kelvin Fong, Dalhousie University, Halifax, Nova Scotia, Canada
On behalf of the North American Chapter of the International Society for Environmental Epidemiology (ISEE)