



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

November 7, 2024

**MEMORANDUM**

**SUBJECT:** CASAC Consultation on Aspects of the Analytical Approach for Health Risk and Exposure Analyses in Support of the Review of the National Ambient Air Quality Standards for Lead

**FROM:** Erika N. Sasser, Director  
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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 a document 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 lead. The document describes updates to the analytical approach for the quantitative risk and exposure assessment (REA) for the lead NAAQS review. These updates, which will also be described in a presentation at the public meeting scheduled for November 22, 2024, will be the subject of a consultation with the Clean Air Scientific Advisory Committee (CASAC) Lead Review Panel at that meeting. I am requesting that you forward this document (electronic file attached) to the Panel to prepare for the November meeting. A printed copy can be sent to the Panel members via U.S. mail upon request.

At the last meeting of the Panel, in June 2023, the Panel discussed the *Integrated Review Plan for the Lead National Ambient Air Quality Standards (IRP): Volume 3: Planning Document for Quantitative Exposure/Risk Analyses*. That document described key considerations and initial plans for the health REA, as informed by the available evidence in this review.<sup>1</sup> Since the June public meeting of the Panel, OAQPS staff have been working to finalize the REA plan, with particular attention to two key aspects: the approach for case studies and the modeling approach for estimating Pb concentrations in house dust arising from Pb in ambient air. Work in these areas has included expansion of both approaches, with accompanying preliminary evaluative work, particularly on the dust Pb modeling. The attached document describes our work in these areas, on which we are interested in the Panel members' consultative advice as we move to

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<sup>1</sup> The IRP, Volume 3 (REA Planning Document), and other planning documents in this review, including the IRP, Volume 1 (Background Document) are available on the EPA webpage: <https://www.epa.gov/naaqs/lead-pb-standards-planning-documents-current-review>.

implementation of the quantitative exposure and risk analyses for this review, which will be described in detail and considered in the draft Policy Assessment document and associated appendices.

The following multi-faceted question is our charge for the Panel discussions at the November 22 meeting.

*What are the Panel member views on the following aspects of the case study and dust Pb modeling plans for the REA?*

*A. Location-Specific Case Studies*

- 1. Boundary delineations*
- 2. Approaches to assigning ambient air Pb concentrations to case study populations, including in near-source areas*
- 3. Strengths and limitations, associated uncertainties*

*B. Dust Lead Modeling Approach*

- 1. Strengths and limitations*
- 2. Key considerations, including with regard to uncertainty characterization*

Should you have any questions regarding the document, please contact me (919-541-3889; email [sasser.erika@epa.gov](mailto:sasser.erika@epa.gov)) or Dr. Deirdre Murphy on my staff (919-541-0729; email [murphy.deirdre@epa.gov](mailto:murphy.deirdre@epa.gov)).

Attachment

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