

05-23-16 Preliminary Draft Comments from Clean Air Scientific Advisory Committee (CASAC) Particulate Matter Panel. These preliminary pre-meeting comments are from individual members of the Panel and do not represent CASAC consensus comments nor EPA policy. Do not cite or quote.

**Preliminary Comments from Dr. Kevin J. Boyle on
EPA's Integrated Review Plan for the National Ambient Air Quality Standards
for Particulate Matter (External Review Draft – April 2016)
05-23-16**

Overall organization and clarity: To what extent does the Panel find that the draft IRP is clearly organized and that it appropriately communicates the plan for the current review of the PM NAAQS and the key scientific and policy issues that will guide the review?

Overall, I felt the presentation was understandable, but there is a lot of repetition in the document that may not be necessary. In such a short document I think you can build on what has already been stated with a reference and focus on the main theme of the topics in later sections. However, if the assumption is that some readers may focus and only read individual chapters or sections, then the current presentation with redundancy may be most appropriate.

Chapter 5 (Welfare Risk and Exposure Assessment):

To what extent does Chapter 5 clearly and adequately describe the scope and specific issues, including the identification of the most important uncertainties, to be considered in developing the WREA Planning Document for this review?

Yes, that chapter does a good job of explaining the current state of the knowledge of technical material and uncertainties.

There is little to no discussion of welfare effects of exposure and risks beyond the technical discussion of potential first-round pathways of exposure. The analyses could benefit with discussion of what the potential welfare effects will be and potential extent of impacts.

Just because visibility is deemed acceptable at the 50% level does not mean that there are not welfare losses to the 50% of individuals below the 50th percentile. There is also a difference between acceptable and desired (or preferred levels), and there can still be welfare losses to individuals above the 50th percentile, but who prefer and unencumbered view.

I am not convinced that the acceptability studies have purged all health considerations from individual's responses and this uncertainty should be addressed in the proposed reanalysis; at least documented if not quantitatively addressed.

Is there additional information that should be considered or additional issues that should be addressed in considering the potential for quantitative analyses for welfare effects in the current review?

With respect to visibility acceptability, where quantitative analyses have been performed there are some additional considerations.

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- For existing studies too much concern, perhaps, has been placed on the use of specific images for eliciting subject's perceptions of visibility. If the goal is to have subjects identify a specific environmental condition, then this may be needed, but to evaluate changes, all that may be needed is consistent images across changes evaluated.
- The issue of national representativeness is perhaps the biggest issue with the existing studies and there are alternatives to assess representativeness and to weight the data for analyses that are not discussed.
- Nonlinearity of view perception should be addressed in the reanalysis of the acceptability study data.
- Reanalysis should include baseline visibility conditions from which acceptability was based in the reanalysis of these data.
- I thought improve monitoring sites were largely outside of urban areas. This should be discussed if these monitoring data are going to continue to be the basis of the analyses.