

07-20-11 Preliminary Draft Comments from Clean Air Scientific Advisory Committee (CASAC) Lead Review 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 Do not cite or quote.

Comments from Dr. Michael Kosnett

Comments on EPA's Review of the National Ambient Air Quality Standards for Lead: Risk and Exposure Assessment Planning Document (June 2011)

The following represents a preliminary summary of my evaluation of the draft Risk and Exposure Assessment Document pertaining to NAAQS for lead. It is subject to revision as I continue my review and analysis of the document.

I agree with the ultimate conclusion of the REA document as it pertains to health risks that new information available in the current NAAQS review for lead does not support the development of an updated or enhanced risk model that would substantially improve the risk estimates for lead.

I concur with the document's conclusion that a quantitative assessment of the relationship between lead exposure via air-related pathways and IQ loss in young children should remain the primary component of the risk estimate for lead.

The document's suggestion (page 2-24) that the 2005-2008 NHANES data offer information that could be used to update or revise the GSD parameter applied in the IEUBK model should be reconsidered. The variability in blood lead concentration presented in the NHANES data reflects variation due to different levels of environmental lead exposure; whereas the GSD utilized for the IEUBK model should reflect variability in blood lead among children with the same level of environmental lead exposure.

In commenting on the impact of certain modeling assumptions on risk estimates, the draft REA document states that the risk attributable to air-related exposure pathways is likely to be bounded on the low end by the risk estimated for the "recent air" pathway and on the upper end by the risk estimated for the combination of "recent air" plus "past air" pathways (page 2-15). EPA should consider that combining the "recent air" plus "past air" pathways may still represent an underestimation of the upper bound risk, because the sum of these two pathways omits the longterm contribution of air-related pathways to lead in the diet. Dietary lead represents the largest component of lead exposure to the general US population, such that even a relatively small percentage change in dietary lead might yield a significant impact on overall lead exposure.