



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SEP 25 2009

THE ADMINISTRATOR

Dr. Joseph D. Brain  
Chair, Carbon Monoxide Review Panel  
Dr. Jonathan M. Samet  
Chair, Clean Air Scientific Advisory Committee  
Science Advisory Board (1400F)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Subject: Clean Air Scientific Advisory Committee's Peer Review of the U.S. Environmental Protection Agency's *Integrated Science Assessment for Carbon Monoxide (First External Review Draft, March 2009)*

Dear Drs. Brain and Samet:

Thank you very much for your letter about the Clean Air Scientific Advisory Committee Carbon Monoxide Review Panel's May 12 and 13, 2009, review of the EPA's *Integrated Science Assessment for Carbon Monoxide (First External Review Draft)*. EPA greatly appreciates the CASAC Panel's time and thorough review of the draft ISA.

We are in the midst of revising the draft CO ISA and anticipate providing CASAC and the public with a second draft by late September 2009. Our revisions to the document will give full consideration to the CASAC's comments and the recommendations and responses to charge questions in your letter, as well as to the individual comments from CASAC panel members and the public. When we complete the second draft, we will provide a more detailed summary of the revisions, similar to the summary of changes we recently provided to CASAC for the second draft Particulate Matter ISA.

Some of the more substantial changes planned for the second External Review Draft of the CO ISA include:

- Expanded discussion and clarification of the criteria for assessing the scientific quality and relevance of epidemiologic, controlled human exposure and toxicological studies, and for the interpretation and integration of study results to draw conclusions on causality;

- In the integrative discussion of CO-related health effects, further evaluation of the evidence and discussion of the challenges faced in distinguishing the independent effects of CO from those of other pollutants in urban air, particularly in interpretation of epidemiologic study findings;
- Revised and expanded characterization of intra-urban spatial variability to focus more explicitly on CO monitors located at various distances from major urban sources, particularly roadways;
- Description of the differing capabilities for detecting low-level CO concentrations with the newer trace-level CO monitors in comparison with the detection capabilities of the standard monitors that predominate in the network. Discussion will also be added on the effect of monitoring limitations on exposure measurement error and its relevance for interpretation of epidemiologic study results;
- Incorporation of additional details in the discussion of CO's atmospheric chemistry and physics relating to its role in climate forcing;
- Inclusion of a summary in the health effects chapter (Chapter 5) to encapsulate information on relevant CO health effects; and

Revised discussion of the evidence on potentially susceptible subpopulations, with emphasis on information regarding individuals with preexisting conditions, particularly cardiovascular disease. The ISA will more fully characterize potential modification of the consequences of ambient CO exposure by factors such as activity patterns and exposure to CO from nonambient or endogenous sources.

Again, my thanks to you and the CASAC panel members for your review of the draft ISA. Your advice and detailed comments have been very valuable in guiding EPA's revisions to the draft ISA. The CASAC panel's work will help ensure that the best science is used in informing the regulatory process.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lisa P. Jackson', with a long horizontal flourish extending to the right.

Lisa P. Jackson

cc: Holly Stallworth, DFO for chartered CASAC  
Ellen Rubin, DFO for CASAC CO Review Panel  
CASAC CO Review Panel