



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

OCT 8 2008

THE ADMINISTRATOR

Dr. Rogene Henderson  
Chair, Clean Air Scientific Advisory Committee  
Science Advisory Board  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Dear Dr. Henderson:

Thank you for your letter of August 8, 2008, regarding the Clean Air Scientific Advisory Committee NO<sub>x</sub> and SO<sub>x</sub> Primary Review Panel's July 30 and 31, 2008, review of the U.S. Environmental Protection Agency's *Second External Review Draft of the Integrated Science Assessment for Sulfur Oxides – Health Criteria* (draft ISA). EPA greatly appreciates the CASAC Panel's time and careful review of the complex science issues included in the draft ISA.

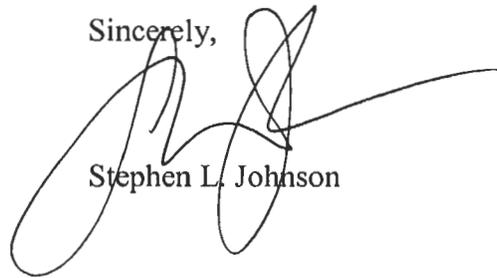
The advice and discussion of issues contained in the CASAC Panel's report have been very helpful to the Agency scientists who have been carefully considering this information as they revise the draft ISA. Your input will help us as we further develop and sharpen our approach to developing ISAs under EPA's revised process for review of the national ambient air quality standards. I have been assured by my staff that the Agency gave full consideration to both the CASAC's comments and recommendations and public comments received by the Agency as the document was revised.

My staff has carefully considered the major comments and recommendations in your letter, as well as extensive individual comments from CASAC Panel members, and I will highlight a few of the key revisions made in preparing the final ISA. In the discussion of EPA's framework for causal determination, EPA has taken the advice of the CASAC Panel and revised the descriptions of the levels in the framework. The discussion and concluding statements have been revised to reflect the CASAC Panel's recommendations on the levels at which health effects occur in clinical and epidemiologic studies. Further evaluation of the 5-minute average SO<sub>2</sub> concentration data has been done, and the results have been characterized in the final ISA. In addition, EPA has clarified the discussion of susceptibility and vulnerability to the effects of exposure to SO<sub>2</sub>.

In closing, I reiterate my thanks to you and the CASAC Panel members for your review of the draft ISAs for both NO<sub>x</sub> and SO<sub>x</sub>. The review of these two pollutants under the tight time constraints of a court-ordered schedule has been challenging for both EPA and the CASAC

Panel, and I very much appreciate your contribution to this effort. 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 'S. Johnson', with a long horizontal flourish extending to the right.

Stephen L. Johnson

cc: Holly Stallworth  
CASAC NO<sub>x</sub> and SO<sub>x</sub> Primary Review Panel