



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460

OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD

February 19, 2010

EPA-CASAC-10-007

The Honorable Lisa P. Jackson  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Subject: Review of EPA's proposed Ozone National Ambient Air Quality Standard  
(*Federal Register*, Vol. 75, Nov. 11, January 19, 2010)

Dear Administrator Jackson:

At the request of EPA's Office of Air Quality Planning and Standards (OAQPS), the Clean Air Scientific Advisory Committee (CASAC) Ozone Review Panel for the Reconsideration of the 2008 National Ambient Air Quality Standard (NAAQS) met via teleconference on January 25, 2010 to review EPA's proposed NAAQS for ozone announced in the Federal Register on January 19, 2010 (see Enclosure for roster.) OAQPS asked CASAC for any "additional comment" on EPA's proposed ozone (O<sub>3</sub>) standards.

CASAC fully supports EPA's proposed range of 0.060 – 0.070 parts per million (ppm) for the 8-hour primary ozone standard. CASAC considers this range to be justified by the scientific evidence as presented in the *Air Quality Criteria for Ozone and Related Photochemical Oxidants* (March 2006) and *Review of the National Ambient Air Quality Standards for Ozone: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper* (July 2007). As stated in our letters of October 24, 2006, March 26, 2007 and April 7, 2008 to former Administrator Stephen L. Johnson, CASAC unanimously recommended selection of an 8-hour average ozone NAAQS within the range proposed by EPA (0.060 to 0.070 ppm).<sup>\*</sup> In proposing this range, EPA has recognized the large body of data and risk analyses demonstrating that retention of the current standard would leave large numbers of individuals at risk for respiratory effects and/or other significant health impacts including asthma exacerbations, emergency room visits, hospital admissions and mortality.

CASAC also supports EPA's secondary ozone standard as proposed: a new cumulative,

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<sup>\*</sup> See Letters from CASAC Chair Rogene Henderson, EPA-CASAC-07-001 (October 24, 2006), EPA-CASAC-07-002 (March 26, 2007) and EPA-CASAC-08-000 (April 7, 2008) respectively.

seasonal standard expressed as an annual index of the sum of weighted hourly concentrations (i.e., the W126 form), cumulated over 12 hours per day (8am to 8pm) during the consecutive 3-month period within the ozone season with the maximum index value, set as a level within the range of 7 to 5 ppm-hours. This W126 metric can be supported as an appropriate option for relating ozone exposure to vegetation responses, such as visible foliar injury and reductions in plant growth. We found the Agency's reasoning, as stated in the *Federal Register* notice of January 19, 2010, to be supported by the extensive scientific evidence considered in the last review cycle. In choosing the W126 form for the secondary standard, the Agency acknowledges the distinction between the effects of acute exposures to ozone on human health and the effects of chronic ozone exposures on welfare, namely that vegetation effects are more dependent on the cumulative exposure to, and uptake of, ozone over the course of the entire growing season (defined to be a minimum of at least three months). In this proposal, the Agency is responding to the clear need for a secondary standard that is different from the primary standard in averaging time, level and form.

As required by the law, CASAC's recommendations are made without consideration of the cost or feasibility of implementation, considerations that are a part of the regulatory impact analysis. Although health and welfare effects of ozone will occur regardless of the origin of the ozone (i.e., natural, U.S. anthropogenic emissions or internationally transported emissions), we note that as levels for ozone standards move closer to "background" levels, new issues may arise with implementation. As the Agency moves forward with the next ozone review cycle, it would be well advised to carefully consider any new monitoring and implementation issues that may arise, particularly as background levels vary throughout the country. In addition, with implementation of the new W126 form for the secondary standard, we suggest that EPA collect information and seek additional research that could be used to inform continued refinement of the standard as well as its implementation.

As always, we thank the Agency for the opportunity to provide advice on the proposed ozone NAAQS.

Sincerely,

*/Signed/*

Dr. Jonathan M. Samet, Chair  
Clean Air Scientific Advisory Committee

Enclosure

**Enclosure**

**U.S. Environmental Protection Agency  
Clean Air Scientific Advisory Committee (CASAC)  
Ozone Review Panel for the Reconsideration of the 2008 NAAQS**

**CHAIR**

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\* Did not participate in this review.

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