

**October 19, 2012 EPA ARTBA CIAQC Teleconference  
on the CARB Request for Waiver for Off-Road Regulation**

Comments of  
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My name is James E. Enstrom. I have been an epidemiologist at UCLA since 1973 and have been a Fellow of American College of Epidemiology since 1981. I am the author of major research findings on the relationship between fine particulate matter (PM<sub>2.5</sub>) and total mortality in California. I am speaking only on behalf of myself. I appreciate this opportunity to state my opposition to the California Air Resources Board (CARB) request for an U.S. Environmental Protection Agency (EPA) waiver for the Off-Road Regulation. I want to make four major points.

1) On December 13, 2011 I submitted a detailed letter to the California Office of Administrative Law requesting that they suspend the CARB Truck and Bus Regulation (<http://www.arb.ca.gov/regact/2010/truckbus10/truckbus10.htm>). This letter provides great detail on the scientifically and legally flawed process that has been used by CARB since 1989 to provide an erroneous public health justification for both the On-Road and Off-Road diesel vehicle regulations in California. My letter is posted on the CARB website ([http://www.arb.ca.gov/lists/gmbond2011/2-enstrom\\_letter\\_to\\_coal\\_comez\\_re\\_suspend\\_carb\\_diesel\\_regs\\_121311.pdf](http://www.arb.ca.gov/lists/gmbond2011/2-enstrom_letter_to_coal_comez_re_suspend_carb_diesel_regs_121311.pdf)) and provides strong evidence for rejecting the CARB waiver request. Specifically, there is little or no epidemiologic evidence documenting mortality risks of diesel particulate matter (PM) in California and there have been serious uncorrected procedural errors by CARB which made possible the identification of diesel PM as a toxic air contaminant and the subsequent On-Road and Off-Road Regulations.

2) There is now overwhelming epidemiologic evidence that PM<sub>2.5</sub> and diesel PM are not related to total mortality in California. This evidence has most recently been summarized in my thirteen-page September 28, 2012 paper, "Particulate Matter is Not Killing Californians." This paper was presented on August 1, 2012 at the American Statistical Association Joint Statistical Meeting in San Diego. It is currently posted online and will be published later this year in the 2012 JMS Proceedings (<http://www.scientificintegrityinstitute.org/ASAS092812.pdf>).

3) The June 2012 EPA “Regulatory Impact Analysis related to the Proposed Revisions to the National Ambient Air Quality Standards for Particulate Matter” ([http://www.epa.gov/ttn/ecas/regdata/RIAs/PMRIACombinedFile\\_Bookmarked.pdf](http://www.epa.gov/ttn/ecas/regdata/RIAs/PMRIACombinedFile_Bookmarked.pdf)) erroneously concluded that “most of the cohort studies conducted in California report central effect estimates similar to the (nation-wide) all-cause mortality risk estimate. . . .” This statement was supported by Table 5.B-10. However, virtually every hazard ratio presented in this table was inaccurate or misleading, including the hazard ratio from my 2005 *Inhalation Toxicology* paper. Furthermore, this table presented only a portion of the California-specific evidence. A glaring omission was the detailed evidence from the October 28, 2011 CARB-funded Report, “Spatiotemporal Analysis of Air Pollution and Mortality in California Based on the American Cancer Society Cohort: Final Report,” by Drs. Michael Jerrett, Richard T. Burnett, C. Arden Pope III, Daniel Krewski, Michael Thun, and nine others (<http://www.scientificintegrityinstitute.org/JerrettCriticism102811.pdf>).

4) EPA must examine and accurately describe all the California-specific evidence regarding PM2.5 and diesel PM and mortality. This evidence has been published since 2000 by at least 26 accomplished doctoral level scientists (Ph.D. or M.D.) (<http://www.scientificintegrityinstitute.org/Enstrom081512.pdf>). In particular, EPA must immediately correct Table 5.B-10 and then state that the null California-specific hazard ratios for PM2.5 and total mortality are clearly differ from the positive hazard ratios found in other parts of the U.S. Also, EPA must examine and acknowledge the seriously flawed process since 1989 that has been used by CARB to justify and adopt the Off-Road Regulation. These examinations will show that there is NO scientific or public health justification for this regulation. Indeed, the implementation of this regulation will have an adverse economic and public health impact in California.

Thank you very much for your consideration of my evidence against granting the CARB waiver request regarding the Off-Road Regulation.