



# Air Resources Board



Linda S. Adams  
Secretary for  
Environmental Protection

Mary D. Nichols, Chairman  
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Arnold Schwarzenegger  
Governor

July 21, 2008

James E. Enstrom, Ph.D., M.P.H.  
Jonsson Comprehensive Cancer Center  
University of California, Los Angeles  
Los Angeles, California 90095

Dear Dr. Enstrom:

This letter is in response to the two issues you raised during my Senate Rules Committee confirmation hearing held June 4, 2008, in Sacramento. During the hearing you expressed a concern over the Air Resources Board's (ARB or Board) method of quantifying the health impacts of exposure to air pollution and a second concern that the process of appointing members to the Scientific Review Panel on Toxic Air Contaminants (SRP) was not following State law. At the time, I answered that your concerns warranted a response, and this letter provides that response.

Your first concern was that ARB methodology developed to quantify the health impacts of air pollution, specifically fine particulate matter (PM<sub>2.5</sub>), relies on national studies rather than California studies. You felt that there are enough California-specific data that they should be used and given preference over nationwide data. You also stated that your recent study needs to be fairly evaluated. I asked ARB staff to review your remarks from my confirmation hearing as well as your comments submitted on April 22, 2008, regarding our Board update on the Goods Movement Emission Reduction Plan.

ARB's approach for assessing the health risk associated with PM<sub>2.5</sub> exposures is consistent with methodologies used by the U.S. EPA and the World Health Organization, and has undergone extensive peer review by three separate panels comprised of experts in the field of air pollution health effects and exposure. A report describing the details of our approach and the review process were released to the public at the May Board meeting and can be found at this website: <http://www.arb.ca.gov/research/health/pm-mort/pm-mortdraft.pdf>. The report reviewed and discussed in detail all major studies using California-specific data, including your study published in 2005 in *Inhalation Toxicology*. Staff also reviewed the recent studies

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

James E. Enstrom, Ph.D., M.P.H.  
July 21, 2008  
Page 2

conducted in other areas of the United States. Staff used several criteria in evaluating the relevant studies, including generalizability of the population, air quality metric, location, and appropriate controlling for co-pollutants and other confounding factors such as smoking, diet, and occupational exposures. Staff concluded, in agreement with the independent peer reviewers, that the weight of the evidence points to a significant relationship between long-term exposures to PM<sub>2.5</sub> and increased risk of premature death, based on the studies that satisfied staff's criteria.

Although the extensive review by the scientific community increases our confidence in the methodology, we will continue to strive to improve it as more information becomes available. Currently, we have contracted with Dr. Michael Jerrett from the University of California at Berkeley and Dr. Michael Lipsett of the California Department of Public Health to assist us in developing a California-specific methodology using the American Cancer Society and California Teacher's Study cohorts. That information should become available within the next two years.

Regarding your second concern, the Secretary of the California Environmental Protection Agency and the Legislature appoint members to the Scientific Review Panel on Toxic Air Contaminants (Health and Safety Code section 39670). The Secretary appoints five members—one must be a pathologist, one an oncologist, one an epidemiologist, one an atmospheric scientist, and the last a scientist with relevant experience who is also experienced in the operation of scientific review or advisory bodies. The Senate Rules Committee appoints two members, one of whom must be qualified as a biostatistician and one of whom is a physician or scientist specializing in occupational medicine. The Speaker of the Assembly also appoints two members, one of whom must be a toxicologist and the other a biochemist or molecular biologist. Members must be appointed from a pool of nominees created by the President of the University of California, must be highly qualified and professionally active or engaged in the conduct of scientific research, and must hold, or have held, academic or equivalent appointments at universities and their affiliates in California.

SRP members are appointed to staggered three-year terms (Health and Safety Code section 39671), but members need not be replaced when their three-year terms expire. Instead, SRP members, like individuals appointed to other official positions, may continue to serve until they are reappointed, resign, or are replaced (Government Code section 1302).

I share your view that the Board's decisions should be based on sound science and consideration of the facts as we know them. The stakes as you say are high, and you have my assurance that I will continue to exercise my judgment with the care and integrity that the Governor expects, and that I personally expect of myself, Board members and staff.

James E. Enstrom, Ph.D., M.P.H.  
July 21, 2008  
Page 3

Thank you again for your interest and for raising your concerns. Should you have any questions or would like additional information, please contact Dr. Linda Smith, of my staff, at (916) 327-8225, or [lsmith@arb.ca.gov](mailto:lsmith@arb.ca.gov).

Sincerely,



Mary D. Nichols  
Chairman

cc: The Honorable Don Perata  
Senate President Pro Tem  
Chair, Senate Rules Committee  
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Robert P. Oglesby  
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