



Southern California Particle Center

June 4, 2008

Senator Don Perata
Senate President Pro Tem
Chair, Senate Rules Committee
State Capitol, Room 205
Sacramento, CA 95814

Dear Mr. Perata,

I am writing this letter to support the appointment of Ms. Mary Nichols as Chairperson of the California Air Resources Board (ARB) and to comment on some of the issues surrounding control of air pollution in California with its public health implications. In my view, Ms. Nichols is likely the most qualified person in the U.S. to fulfill the role of ARB Chair. She has a long and stellar history addressing air pollution issues at both the State and Federal levels and she has demonstrated leadership, intelligence, and administrative skills. For example, she was central to the development of standards for PM 2.5 to address excess mortality from ambient fine particles at U.S. EPA. Under Mary Nichols the ARB adopted new rules requiring the construction industry to upgrade its equipment to reduce diesel and greenhouse gas emissions. This regulation is the first rule in the U.S. focused on cleaning up diesel emissions from off-road construction equipment. She is committed to addressing global climate change issues in the State as well as continuing the progress on air pollution control and health protection. I believe the State is fortunate to have a person of Ms. Nichols' caliber to Chair this important government agency.

I am Professor of Toxicology in the UCLA School of Public Health. I direct one of the five Centers funded by U.S. EPA to address the underlying issues associated with public exposure to airborne particulate matter (PM), the Southern California Particle Center (SCPC). I also direct the legislatively mandated UCLA Center for Occupational and Environmental Health (COEH) and a program funded by the South Coast Air Quality Management District called the Asthma Consortium on Air Quality. I am Chair of the Scientific Review Panel (SRP) which was established under AB 1807 to address the issue of Toxic Air Contaminants (TAC) in California. The SRP is a legislatively mandated technical peer review committee advisory to the ARB, the Office of Environmental Health Hazard Assessment (OEHHA) and the Department of Pesticide Regulation (DPR). I was appointed to my membership by the Speaker of the Assembly and later made Chair by the Secretary of CAL/EPA. The SRP is responsible for reviewing proposed toxic air contaminants and risk assessment guidelines. The SRP's task is to ensure that the science behind certain decisions is sound. Since its inception, the SRP has identified 29 toxic air contaminants (TACs), and evaluated the determination of 299 health values for hazardous air pollutants as TACs. Mary Nichols has been a strong supporter of the role of the SRP through her support for strong science based evaluation of air contaminants. She clearly recognized the

importance of having prestigious scientists provide advice to the Agency to facilitate the peer review process of the SRP.

The role of the SRP within the context of AB 1807 is at times difficult and demanding because the determinations are at times controversial. For example, in my role as Chair of the SRP, I had the responsibility of providing leadership on the review of the documents prepared by the ARB and OEHHA on the determination of whether diesel particulate should be recommended to be listed as a TAC. The process of review was begun in 1989 and completed in 1998. The ARB and OEHHA documents had determined there was causal evidence that exposure to diesel particulate resulted in lung cancer based on human occupational epidemiological studies and therefore met the criteria for listing as a TAC.

Research work since 1998 has confirmed these original conclusions, for example, Garshick et al in a paper in *Environmental Health Perspectives* concluded: "Lung cancer mortality in workers (railroad workers) in diesel exposed jobs was elevated in this cohort.....these results indicate that the association between diesel exhaust exposure and lung cancer is real." More recently, in a 2008 paper, Garshick et al. concluded: "Trucking industry workers who have had regular exposure to vehicle exhaust from diesel and other types of vehicles on highways, city streets, and loading docks have an elevated risk of lung cancer with increasing years of work." In other words, the findings of the State scientists and the ARB have been confirmed several times since 1998. There are probably 40-50 studies now available to indicate the significant risk associated with exposure to diesel exhaust.

It is apparent that air pollution related to traffic (mobile source) emissions may be a key contributor to adverse health impacts. There is considerable evidence that traffic related pollution may have significant consequences throughout California. Booth and Shendell (2008) have reviewed the literature on potential health affects associated with residential proximity to freeways and primary roads and concluded: "Studies we reviewed consistently reported statistically significant associations between residential proximity to traffic and at least one of the following adverse health effects: increased prevalence and severity of symptoms of asthma and other respiratory diseases, diminished lung function, adverse birth outcomes, childhood cancer, and increased mortality risks." The Children's Health Study (CHS) conducted by investigators at the University of Southern California and funded by the ARB showed important consequences on lung growth in children. Finally, in a landmark study Jerrett et al. (2005) demonstrated increased relative risks from ischemic heart disease and lung cancer in Los Angeles with the finding being robust for expressway exposure.

The research conducted in the U.S. with particular emphasis on work carried out in California over the past decade since the recommendation of diesel particulate as a TAC has demonstrated that the health problems associated with air pollution are still a major factor in the lives of the population. There have been demonstrable improvements in the quality of the air compared to past decades, but we have identified new health endpoints with significant risks. A May 2008 ARB press release on premature deaths from particle pollution being higher than originally thought, quoted Ms. Nichols as saying: "Particle pollution is a silent killer. We must work even harder to cut these life-shortening emissions by further addressing pollution sources head-on."

Recently the ARB has developed a Goods Movement Emission Reduction Plan. This plan has unique importance in the addressing of potential health risks associated with the growth of goods movement in the LA Basin. I have never in my career seen a plan that was more thoroughly

reviewed by the scientific community. A description of the review is attached to this letter. The Plan has major implications for addressing risks associated with air pollution linked to goods movement including trucks, ships, rail and stationary sources. This report will enable effective planning for addressing health issues over time, under ARB Chair Nichols' leadership.

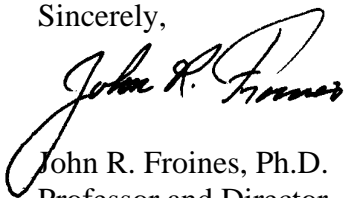
I have reviewed some of the highlights of the ARB's efforts over time to demonstrate the high degree of competency that they and OEHHA possess. There are no State programs of equal stature to those of California throughout the U.S. The ARB is unique in terms of its productivity, resourcefulness, and overall leadership in the field of air pollution. Finally its document on environmental tobacco smoke is unparalleled and represents the single most important document in the area of tobacco smoke. It is at least equal to the reports of the U.S. Surgeon General.

This review has not sought to be exhaustive; I wanted to accomplish three elements: 1) the SRP has been an important peer review scientific body that has served the ARB, OEHHA and DPR effectively since its formation in 1983 by having highly skilled scientists as members of the Panel; 2) the ARB has addressed a wide range of key issues relating to the health consequences of air pollution and is widely recognized for its contributions, and 3) Mary Nichols' first experience as Chair of the ARB, later in charge (assistant administrator) of air and radiation for EPA and now Chair of ARB again provides her with the extensive experience required to perform effectively in a highly scientific world with significant policy, law and economics factors needing to be addressed. She is capable of working with all sides on an issue to more effectively find solutions acceptable to all parties, but she is also able to recognize that some decisions require a firm hand.

The role of the Chair of ARB has been made more challenging by giving ARB the responsibility for addressing issues associated with global climate change as well as issues of air pollution. These responsibilities will require a leader of great skill and commitment. I believe Ms. Mary Nichols has all the strengths and commitment required of the person who will Chair the ARB during this crucial period of time. She is unparalleled as a leader and will be able to take ARB in new directions that will solidify its already impressive record.

I appreciate the opportunity to comment on this appointment and I am available if you have further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Froines". The signature is written in a cursive, flowing style with a large initial "J".

John R. Froines, Ph.D.
Professor and Director
Center for Occupational and Environmental Health