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California's New Diesel Regulation Is All Pain for No Gain

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The California Air Resources Board (CARB) promulgated new, stricter regulations for diesel truck emissions, last December, that significantly reduce the amount of fine particulate matter (PM 2.5) emissions allowed in the state.¹ Diesel PM 2.5 is made up of fine particles of soot from diesel emissions that can be inhaled deeply into the lungs, and is often blamed for premature deaths. However, California's new regulation will do nothing to improve public health, while costing millions.

California is the only state with such a diesel emissions reduction program, largely because the U.S. Environmental Protection Agency has never determined that diesel exhaust causes premature deaths. For example, the agency's large, detailed study in 2002 failed to find that diesel exhaust causes premature deaths.² As Hoover Institution Senior Fellow Dr. Henry Miller points out, the new regulations constitute an overreach by CARB—based on faulty science—that would drive business out of California.³

No Gain. The Board claimed that the regulations would address the problem of 3,500 premature deaths each year, to which diesel particulates supposedly contribute, and would reduce health care expenditures. But those claimed benefits will not be realized because the epidemiologic studies (the science) on which CARB devised its policy are flawed. These studies all find a very weak *association* between the concentration of PM 2.5 and the number of deaths. Weak associations in large epidemiological studies do not imply causation, but merely represent chance findings.^{4 5}

Six additional independent sources show little or no relationship between PM 2.5 and deaths in California.⁶ For example, a 2005 study, by UCLA's Dr. James Enstrom, of the long-term relation between PM 2.5 air pollution and mortality followed nearly 50,000

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elderly Californians over a 30-year period, from 1973 through 2002. It concluded that there was *no* death effect from current atmospheric levels of PM 2.5 in California.⁷

Other evidence is also negative. For example, the Centers for Disease Control and Prevention's national mortality base shows that California's mortality rate during 2000-2005 was 9 percent lower, and the Los Angeles County rate 11 percent lower, than the total U.S. age-adjusted death rate.⁸ This suggests that diesel PM 2.5 is not causing premature deaths in California.

All Pain. Not only will the new diesel regulations not save any lives, their cost will be enormous. Around 2.3 million trucks move goods throughout California, and the cost to upgrade them has been estimated by California Assemblyman Chuck DeVore at "upwards of \$10 billion."⁹ The regulations will bankrupt thousands of small trucking and construction businesses and cause enormous damage to California's already reeling economy. Many lucrative trucking and port jobs will move across the border. The two busiest ports in the U.S.—Long Beach and Los Angeles—likely will lose a lot of business to a new Mexican port in Baja California.¹⁰

Many concerned members of the public and several prominent and respected scientists, led by UCLA's Dr. Enstrom, disputed the need for the new regulations in 148 pages of detailed, written comments that documented serious errors and misrepresentations in the final CARB Staff Report.¹¹ However, CARB did not adequately address these criticisms, and it failed to show its final CARB Staff Report and the 148 pages of public comments to external peer reviewers, as it claimed.

Conclusion. CARB's new diesel regulations represent the most regressive tax ever imposed on the residents of California at a time when diesel toxicity and fine particulate air pollution are at record low levels and decreasing.¹²

All regulations have consequences and costs. To achieve their intended goals, regulations must be based on the best science available. This means that all available evidence from diverse sources must be considered, and the regulations must result in greater benefits than the costs imposed.

In this case, the evidence is overwhelming. Diesel particulate matter is *not* currently causing premature deaths in California. CARB's new diesel regulations are a disaster—all pain for no gain. They should be repealed, or at the very least postponed until a competent reevaluation of the problem can be accomplished.

Notes

¹ California Air Resources Board Goods Movement Emission Reduction Plan, *Rulemaking to consider adoption to the statewide truck and bus regulations*. December 11, 2008, <http://www.arb.ca.gov/regact/2008/truckbus08/truckbus08.htm>.

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- ² Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment, "Health Assessment Document for Diesel Engine Exhaust," Washington, DC, EPA/600/8-90/057F, 2002, <http://cfpub.epa.gov/ncea/cfm/recorddisplay.cfm?deid=29060>.
- ³ Henry I. Miller, "Diesel Risks Mostly Hot Air?" *The Washington Times*, May 27, 2008, <http://www.washingtontimes.com/news/2008/may/27/diesel-risks-mostly-hot-air>.
- ⁴ Jerome C. Jr. Arnett, "The EPA's Fine Particulate Mortality (PM 2.5) Standard, Lung Disease, and Mortality: A Failure of Epidemiology," *Issue Analysis* 2006 No. 4, Competitive Enterprise Institute, Washington, D.C., September 7, 2006, <http://cei.org/pdf/5511.pdf>.
- ⁵ Gary Taubes, "Epidemiology Faces Its Limits" *Science*, 1995; 269:pp. 164-169, <http://www.ncbi.nlm.nih.gov/pubmed/7618077>.
- ⁶ James E. Enstrom, Letter to the California Air Resources Board, "Scientific Reasons to Postpone Adoption of Proposed STATEWIDE TRUCK AND BUS REGULATIONS," December 10, 2008, http://www.arb.ca.gov/lists/truckbus08/897-carb_enstrom_comments_on_statewide_truck_regulations_121008.pdf.
- ⁷ Enstrom, "Fine Particulate Air Pollution and Total Mortality among Elderly Californians, 1973-2002," *Inhalation Toxicology*, 2005;17:pp. 803-816 http://www.arb.ca.gov/planning/gmerp/declplan/gmerp_comments/enstrom.pdf.
- ⁸ U.S. Centers For Disease Control and Prevention, WONDER for U.S. Mortality During 2000-2005, <http://wonder.cdc.gov/cmfiCD10.html>.
- ⁹ Assemblyman Chuck DeVore, Letter to the California Air Resources Board, February 17, 2009, http://www.arb.ca.gov/lists/siprev09/1-carb_devore_villines_correa_letter_regarding_diesel_regs_021709.pdf.
- ¹⁰ Miller.
- ¹¹ CARB Public Comments on Fine PM and Premature Deaths in California. October 24, 2008, http://www.arb.ca.gov/research/health/pm-mort/pm-mort_supp.pdf.
- ¹² Enstrom et.al, "Request to Postpone and Reassess CARB Diesel Regulations" December 3, 2008, http://www.arb.ca.gov/lists/truckbus08/902-request_to_postpone_and_reassess_carb_diesel_regulations_120308.pdf.