

State of California
AIR RESOURCES BOARD

Summary of Board Meeting
January 24, 2008

California Air Resources Board
1001 I Street
Sacramento, California

MEMBERS PRESENT: Mary Nichols, Chairman
Ms. Sandra Berg
Supervisor Judy Case
Supervisor Jerry Hill
Ms. Lydia Kennard
Supervisor Ron Roberts
Professor Daniel Sperling

Agenda Item #

08-1-1: Health Update: Health Effects by Occupation in the U.S. Trucking Industry

SUMMARY OF AGENDA ITEM:

The ARB staff provides the Board with regular updates on current research findings on the health effects of air pollution. In this health update, staff presented the findings of recently published research on the health effects of exposure to mobile source emissions by occupation in the U.S. trucking industry. This nationwide study examined the deaths in a large group of unionized workers. The employees studied showed a lower overall death rate than the general population, as expected in a working population. However, when death due to lung cancer and ischemic heart disease was compared to the general U.S. population, the death rate observed in the workers was elevated especially for drivers and dockworkers. Lung cancer rates were elevated among all drivers and dockworkers by 10 percent. Also, ischemic heart disease was elevated, by 49 percent among drivers and by 32 percent among dockworkers. The findings from this study are relevant to the U.S. trucking industry and also for the general population that live, commute, or work in proximity to diesel-fueled traffic or trucking terminals.

ORAL TESTIMONY: Chairman Nichols thanked the staff for presenting this study and noted that the investigation brought to light some significant health impacts that would be of particular concern to the workers in the trucking industry.

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

08-1-2: Public Meeting to Consider Research Proposals

SUMMARY OF AGENDA ITEM:

Staff described the objective and expected results for the following five research proposals.

1. "Economic Value of Reducing Cardiovascular Disease Morbidity," San Diego State University Research Foundation, \$392,036, Proposal No. 2641-258.
2. "Environmental Justice Saturation Monitoring of Selected Pollutants in Wilmington," Desert Research Institute, \$40,223, Proposal No. 2642-258.
3. "Development of a California-Specific Intermodal Freight Transport Model," University of Delaware, \$199,937, Proposal No. 2648-258.
4. "Reducing Emissions of Volatile Organic Compounds from Agricultural Soil Fumigation: Comparing Emission Estimates from Simplified Methodology," United States Department of Agriculture, \$150,000, Proposal No. 2649-258.
5. "Developing a California Inventory for Selected Applications of Perfluorocarbons, Sulfur Hexafluoride, Hydrofluorocarbons, Nitrogen Trifluoride, Hydrofluoroethers, and Ozone Depleting Substances," Institute for Research and Technical Assistance, \$199,840, Proposal No. 2644-258.

ORAL TESTIMONY: None.

FORMAL BOARD ACTION:

The Board approved resolution numbers – 08-1 through 08-5.

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

08-1-3: Report to the Board on the ARB Action Plan For 2008

SUMMARY OF AGENDA ITEM:

Executive Officer James Goldstene previewed for the Board the major rulemaking and initiatives that staff will bring to the Board this year, including diesel fleet rules, the strategic enforcement plan for diesel, the AB 32-mandated scoping plan, and early action measures for greenhouse gas reduction. Mr. Goldstene further outlined major funding sources available for air quality work and identified ARB resources that will aid this year's regulatory efforts.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None

RESPONSIBLE DIVISION: Planning and Technical Support Division

STAFF REPORT: No

08-1-4: Public Meeting to Consider the Approval of Grants under the Innovative Clean Air Technologies (ICAT) Program

SUMMARY OF AGENDA ITEM:

Staff recommended grants for 3 projects as follows:

- Davis Energy Group: "SunCache Solar Water Heating System" - \$235,000
- GEO2 Technologies, Inc.: "Advanced Composite Particulate Filter"- \$185,000
- Los Gatos Research: "High Accuracy Mobile Emissions Laboratory" - \$77,996

ORAL TESTIMONY: None

FORMAL BOARD ACTION: The Board adopted resolutions 08-7 through 08-9.

RESPONSIBLE DIVISION: Research

STAFF REPORT: None

08-1-5: Public Meeting to Consider Appointments to Fill Vacancies of the Environmental Justice Advisory Committee (EJAC) under AB 32, the California Global Warming Solutions Act of 2006

SUMMARY OF AGENDA ITEM:

The Air Resources Board (ARB or Board) appointed Ms. Caroline Farrell of the Center on Race, Poverty, and the Environment to fill the member vacancy. In addition, the appointments of Ms. Anna Yun Lee of Communities for a Better Environment, Mr. Luke Cole of the Center on Race, Poverty, and the Environment, and Ms. Betsy Reifsnider of Catholic Charities, Diocese of Stockton to fill alternate vacancies on EJAC.

ORAL TESTIMONY: NONE

FORMAL BOARD ACTION:

The Board adopted Resolution 08-11 by a unanimous vote, approving the staff recommended nominees to EJAC.

08-1-8: Public Hearing to Consider Amendments to the Diesel Emission Control Strategy Verification Procedure

SUMMARY OF AGENDA ITEM:

In May 2002, the Air Resources Board (ARB or Board) adopted a procedure to verify emissions reductions achieved by diesel emission control strategies (the Procedure). The Procedure supports numerous in-use diesel emission control regulations that were developed to attain the emissions reductions goals set by the Diesel Risk Reduction Plan, which was adopted by the Board in 2000.

At the January 24, 2008, Board meeting, staff proposed modifications to increase the Procedure's flexibility in evaluating the growing complexity and diversity of diesel emission control strategies. In addition, experience with numerous applicants throughout the verification process has revealed that certain clarifications of existing requirements are needed to help applicants through the verification process. After numerous workshops and meetings with interested parties, staff devised the following modifications that will improve the Procedure's ability to support existing and future in-use diesel emission control regulations.

The major proposed changes include:

Conditional Extensions: A proposed amendment to allow previously verified control strategies to receive conditional

extensions for new on-road applications. This would expedite the verification process for technologies that have already been acknowledged by the Verification Program to reduce emissions.

Systems That Only Reduce Oxides of Nitrogen (NO_x) Emissions:

A proposed amendment to allow control strategies that only reduce NO_x to be verified for on-road engines that meet the 0.01 grams per brake horsepower-hour (g/bhp-hr) Particulate Matter (PM) certification emission standard and off-road engines that meet the 0.03 g/bhp-hr PM certification emission standard, or engines that are not regulated by ARB in-use fleet regulations or Airborne Toxic Control Measures that require PM emissions control, or engines that will not be retrofit with PM emissions control systems. Currently, the Procedure requires control strategies that reduce NO_x to also reduce PM by at least 25 percent. Diesel engines are a significant source of NO_x emissions even from engines that are certified to low PM emissions standards.

Testing Requirements for Off-Road Applications and Fuel-Based Strategies: A proposed amendment to require control strategies for transient off-road applications to be tested under the Non-Road Transient Cycle (NRTC). The NRTC is more representative of the actual operating conditions of most off-road applications than the steady state test cycle currently used. This amendment would result in more accurate evaluations, and thus, more robust verifications. The proposed amendment also requires alternative fuel-based control strategies for off-road and stationary applications to be tested under the appropriate off-road and stationary test cycles. This would keep emissions testing similar for all control strategies intended for off-road and stationary applications. In addition, the proposed amendment requires all fuel-based control strategies to follow the verification procedures specified in section 2710 to ensure similar testing for all fuel-based strategies.

Requirements for NO_x Reduction Systems: A proposed amendment to require control strategies that reduce NO_x to achieve at least a 25 percent NO_x reduction. In addition, control strategies that reduce NO_x emissions would be verified in broad levels, similar to how PM control strategies are verified.

Currently, NO_x control strategies are verified in five percent increments, a classification system that is too narrow for the variable performance of these control strategies in actual operation. In addition, the current structure does not adequately support in-use regulations.

To assist in the evaluation of the in-use performance of after-treatment-based NO_x emission control systems, staff proposed that NO_x emissions both upstream and downstream of the NO_x device

be measured and recorded during durability and field demonstrations. These measured data fields provide a record of activity as well as insight into the functioning of a system while in actual use.

Staff also proposed to remove the requirement to test an on-road NOx emission control system under conditions that generate elevated NOx emissions. One fundamental issue with the current requirement is that there is no standard method or test cycle which is guaranteed to trigger off-cycle NOx emissions for all engine makes and models. As such, only limited success with emissions test conditions that reliably result in off-cycle emissions has been achieved. The proposal should reduce verification costs and simplify the overall process.

Other Amendments: Staff proposed to add additional clarifications of the current requirements. These include deadlines for submitting in-use compliance information, a requirement for specific information to be kept for each diesel emission control system sold, a requirement that verified systems actually be sold in California, and specific requirements regarding verification transfers, acceptance of pre-existing data, system labeling, and sales and installation. These proposed amendments will aid applicants by clarifying the intent of existing requirements.

Additional Amendments (To follow 15-Day Change process): After hearing public testimony on staff's proposals, the Board directed staff to further define and clarify, with the help of the stakeholders:

- An appropriate phase in schedule for the transition to uni-directional flow devices, and;
- Provisions allowing end-users to install used systems on different vehicles, including the application of the Procedure's warranty provisions.

ORAL TESTIMONY:

At the Board meeting, 5 witnesses testified – all in support of the regulation. The witnesses were:

Rasto Brezny, Manufacturers of Emission Controls Association
Julian Imes, Donaldson Company, Inc.
Donel Olson, Olson Ecologic Engine Test Laboratory
Kevin Brown, Engine Control Systems Limited
Tom Swenson, Cleaire

FORMAL BOARD ACTION:

The Board unanimously adopted Resolution 08-13, approving the staff proposal with modifications to be developed by staff (Attachment B).

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

07-12-10: Public Meeting to Consider Options Regarding the Requested Disclosure of Zero Emission Vehicle (ZEV) Credit Data Based on Submittals by Vehicle Manufacturers Who Have Designated the Data as Confidential Trade Secret Information

SUMMARY OF AGENDA ITEM:

The Board heard the current status of seeking a compromise with vehicle manufacturers and the ZEV Alliance regarding credit disclosure. Three options were offered for the Board's consideration: (1) accept the Public Records Act (PRA) request, (2) deny the PRA request, and (3) table action on the PRA request.

ORAL TESTIMONY:

Tim Carmichael, Coalition for Clean Air
Bonnie Holmes-Gen, American Lung Association of California
Kathy Lynch, Plug-In America

FORMAL BOARD ACTION:

The Board tabled action on this item until the March Board Meeting.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: No