

State of California
AIR RESOURCES BOARD

Summary of Board Meeting
March 25, 2004

Air Resources Board
Central Valley Auditorium, Second Floor
1001 I Street
Sacramento, California

MEMBERS PRESENT: Hons. Alan C. Lloyd, Ph.D., Chairman
Joseph C. Calhoun, P.E.
Doreen D'Adamo, J.D.
Mark J. DeSaulnier
C. Hugh Friedman
Matthew R. McKinnon
Barbara Riordan
William A. Burke
Ron Roberts

AGENDA ITEM #

04-3-1: Health Update on the Health Effects of Volatile Organic Compounds

SUMMARY OF AGENDA ITEM:

This month's health update consisted of an ARB-funded study that evaluated the health effects of volatile organic compounds (VOC) on a group of Hispanic asthmatic children residing in eastern Los Angeles County. This pilot study was designed to evaluate the relationship of the daily occurrence and severity of asthma among Hispanic school children. The study used subject time-activity reports, breath samples, and personal, indoor home, and outdoor VOC samplers to study the exposure of the children in the study. Investigators reported associations between bothersome and more severe asthma symptoms, recorded in diaries, and breath levels of benzene. Outdoor levels of benzene and other toxic VOCs that are predominantly emitted from motor vehicles, measured at the neighborhood school, also showed significant associations with asthma symptoms. These findings, coupled with evidence from other scientific studies, suggest that the irritant nature of traffic-related pollutants can lead to adverse effects in asthmatic children.

Chairman Lloyd asked staff if more studies were planned. Staff explained that there were no studies planned that looked at the VOC effects on health as this study did. However, VOC data are being collected in Fresno, the location for the Fresno Asthmatic Children's Environment Study (FACES). Although that study is focusing on the effects of particulate matter on asthmatics, the data will be available for analyses on possible VOC links.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item).

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

04-3-2: Public Meeting to Consider Research Proposals.

SUMMARY OF AGENDA ITEM: Staff recommended approval of the following contracts:

1. Proposal No. 2541-232, entitled "Effect of GSTM1 Genotype on Ozone-Induced Allergic Airway Inflammation," submitted by the University of California, San Francisco, for a total amount not to exceed \$497,990.
2. Proposal No. 2545-233, entitled "Determination of Reactive Oxygen Species Activity in Particulate Matter (PM) and Enhanced Exposure Assessment for the NIH, NIEHS Study Entitled: Ultrafine Particulate Matter and Cardiorespiratory Health," submitted by the University of California, Irvine, for a total amount not to exceed \$676,814.
3. Proposal No. 2549-234, entitled "Development of a Micro Air Particulate Analyzer (MicroAPA) for Ubiquitous Deployment in Air Quality Monitoring and Epidemiological Studies," submitted by the University of California, Davis, for a total amount not to exceed \$245,000.
4. Proposal No. 2549-235, entitled "Evaluation of Mechanisms of Exhaust Intrusion into School Buses and Feasible Mitigation Measures," submitted by the University of California, Riverside, for a total amount not to exceed \$150,000.

5. Proposal No. 2549-236, entitled "Evaluation of the Heavy-Duty Diesel Engine Not-To-Exceed Regulation," submitted by the University of California, Riverside, for a total amount not to exceed \$400,000.

ORAL TESTIMONY: None

FORMAL BOARD ACTION:

The Board approved resolutions 04-9 through 04-13 by a unanimous vote.

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

04-3-3: Public Meeting to Consider Heavy-Duty Diesel Engine Software Upgrade Regulation (Chip Reflash)

SUMMARY OF AGENDA ITEM:

The Air Resources Board (ARB or the Board) staff presented the proposed Heavy-Duty Diesel Engine Software Upgrade Regulation and a Voluntary Software Upgrade Program for consideration. The Board approved both the Voluntary Program and the proposed regulation as a backstop to the Voluntary Program.

The proposed regulation would require owners and operators of trucks, school buses, and motor homes equipped with certain 1993-1998 model year heavy-duty diesel engines to install new software in the engine's electronic control module (ECM) to reduce oxides of nitrogen (NOx) emissions. Under federal Consent Decrees and state Settlement Agreements signed in 1998, the low NOx software is to be installed on applicable engines at time of rebuild at no charge to the vehicle owner/operator.

Under the Voluntary Program, the engine manufacturers will provide the Low NOx Rebuild Software at no charge to California-registered vehicle owners/operators at any service event or upon request. The California Trucking Association has agreed to promote Low NOx Rebuild Software installation as long as the software is available at no charge to the vehicle owners/operators.

At the March 25, 2004 meeting of the ARB, the Board approved the Voluntary Program for Software Upgrade and the proposed Software Upgrade regulation as a backstop to the Voluntary

Program. Staff will return to the Board in December 2004 to report on the progress of the Voluntary Program. The Board will determine if the reflash results warrant continuing the Voluntary Program or not. If the Board determines that the Voluntary Program is not successful, ARB will put the regulation, approved as a backstop to the Voluntary Program, into effect.

The Board directed that initial reporting of the Low NOx Rebuild Software installation status should be quarterly. The Board moved up the timeline for one hundred percent of the eligible engines to be reflashed – calling for that to happen by 2008 (instead of 2010). The Board also directed staff to convene a Software Upgrade Voluntary Program Coordination Group, which will include environmental representatives, dealers, and other stakeholders interested in tracking the progress of the Voluntary Program.

ORAL TESTIMONY:

Jed Mandel, Engine Manufacturers Association
Stephanie Williams, California Trucking Association
Bonnie Holmes-Gen, American Lung Association of California
Patricia Monahan, Union of Concerned Scientists
Diane Bailey, National Resources Defense Council
Mike Neuenburg, Sacramento Metropolitan Air Quality
Management District
Todd Campbell, Coalition for Clean Air
Rebecca Flournoy, Community Action to Fight Asthma
Kathryn Phillips, Center for Energy Efficiency and Renewable
Technologies
Dalbir S. Dhaliwal, Punjali Truck Association
Dean Kitak, Private Citizen

FORMAL BOARD ACTION:

The Board approved the proposed Heavy-Duty Diesel Engine Software Upgrade Regulation (Chip Reflash) and approved the Voluntary Software Upgrade Program. The approval was unanimous and resulted in the passing of resolution 04-14.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes