

State of California  
AIR RESOURCES BOARD

Summary of Board Hearing  
September 25, 2003

California Environmental Protection Agency / 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.  
C. Hugh Friedman  
William F. Friedman, M.D.  
Matthew R. McKinnon  
Barbara Patrick  
Barbara Riordan

AGENDA ITEM #

**03-7-1: Health Update**

SUMMARY OF AGENDA ITEM:

The ARB staff summarized two recent toxicological studies that demonstrate ozone and allergen appears to have a synergistic effect in the lungs. Its effects depend on the duration and concentration of ozone exposure. These results contribute to our knowledge of how ozone works to worsen the medical symptoms related to asthma and indicate that some asthmatics may be particularly vulnerable to the harmful effects of ozone. In addition, information from these studies will in our current ozone standard review. Finally, staff mentioned that further study on long term ozone exposure and its effects on vulnerable asthmatic populations is underway. The Fresno Asthmatic Children's Environment Study (FACES) funded by ARB is designed to help clarify the role of ozone and allergens such as pollens, molds, and endotoxins in the exacerbation of asthma.

Dr. Friedman found both of these studies to be helpful descriptive biological basic research. These studies were described as first

steps in the process of discovering the most critical issue, which is the true basic cellular and molecular mechanism that instigate asthma. Dr. Friedman reaffirmed the importance for funding research, and pointed out that we are currently funding very important clinical research in Fresno in the FACES.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item).

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

**03-7-2: Public Hearing to Consider the Adoption of a Control Measure for Diesel Particulate Matter from on Road Heavy-Duty Residential and Commercial Solid Waste Collection Vehicles**

SUMMARY OF AGENDA ITEM:

The Air Resources Board (ARB or Board) considered and approved the adoption of a control measure for diesel Particulate Matter (PM) from on road Heavy-Duty Residential and Commercial Solid Waste Collection Vehicles. The measure requires reduction to PM emissions from in-use vehicles through the application of best available control technology, by specified implementation dates, phased-in by engine model year groups over seven years. The regulation supports the previously adopted Diesel Risk Reduction Plan, which established a goal of reducing diesel PM by 75% by the year 2010.

ORAL TESTIMONY:

Paul Wuebben, South Coast AQMD  
Mark Leary, California Integrated Waste Management Board  
Yvonne Hunter, League of California Cities  
Daniel Meyers, City of Los Angeles  
Mary M. Pitto, Regional Council of Rural Counties  
Harry Schrauth, City of Oakland  
Michael Mohajer, LA County Solid Waste Management Committee  
Yvette Agredano, California Chapters of SWANA  
Sam Mendoza, City of San Diego  
Sam Boyd, Los Angeles County of Sanitation  
Jed Mandel, Engine Manufacturers Association  
Emily Brown, Information – Research & Policy  
David Huerta, City of Fremont

Graham Noyes, World Energy Alternative Fuels  
Stephanie Williams, California Trucking Association  
Tim Ward, California Independent Oil Marketing Association  
Kelly Astor, California Refuse Removal Council (Attorney)  
Bill Dobert, Specialty Solid Waste Recovery Systems (CRRS)  
Greg Sanders, Varner Brothers, Inc. (Bakersfield)  
Jack Fiori, California Waste Recovery Systems (Lodi)  
Andy Rose, Attorney and Financial Advisor  
Mark Figone, East Bay Sanitary Company (El Serreno)  
Dennis Shuler, Gilton Solid Waste Management (Fleet Owner)  
Shelia Edwards, Marine Sanitary Service (Gardino Family)  
Kevin Mullins, Mill Valley Refuse Service (Gambino Refuse)  
Louie Pellegrini, Peninsula Sanitary Service (Fleet Owner)  
Sheryl Granzella, Richmond Sanitary Service (Republic Svc)  
Ronald Proto, CCRC Member Consulting Group  
Doug Button, South San Francisco Scavenger Co., Inc.  
David Achiro, Tahoe Truckee Sierra Disposal Co., Inc.  
Harry Miller, Tracy Delta SWMCO (Repetto Family)  
Alan Marchant, Turlock Scavenger Company  
Hohn McNamara, California Refuse Removal Council  
Sean Edgar, California Refuse Removal Council  
Chuck Helget, Allied Waste Industries  
Kent Stoddard, Waste Management  
David Wilson, City of Los Angeles  
Ruben Martinez, Diesel Air Fleet Svcs.  
Joseph Kubsh, MECA  
Scott Smithline, Californians Against Waste  
Karen Wilson, Sacramento Metro AQMD (Strategies Planning)  
Todd Campbell, City of Burbank  
Bonnie Holmes, American Lung Association  
Tom Addison, Bay Area AQMD  
Patricia Monahan, Union of Concerned Scientist  
Diane Bailey, NRDC  
Bob Lucas, CA Council for Environmental & Economic Balance  
Wendel Smith, Global Fuel

FORMAL BOARD ACTION:

At the hearing, the Board adopted Resolution 03-21 approving the particulate control measure for on-road heavy-duty residential and commercial solid waste collection vehicles. Within the resolution, the Board directed the Executive Officer to adopt the regulations after making available for public comment all changes specifically directed by the Board or any other necessary changes to the regulatory language as originally proposed in the Staff Report

released on June 6, 2003. The Board directed staff to work with members of the affected industries and associations.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

**03-7-3: Public Hearing to Consider the Adoption of Exhaust and Evaporative Emissions Control Requirements for Small Off-Road Engines Less than or Equal to 19 Kilowatts and Equipment that use Such Engines**

SUMMARY OF AGENDA ITEM:

Staff proposed amendments to the existing exhaust emission regulations and new regulations to control evaporative emissions from small off-road spark-ignition engines.

The third tier of exhaust standards would be phased-in beginning in 2007 for Class 1 engines and 2008 for class 2 engines. The Tier 3 exhaust standards are based on the use of catalytic converters. To encourage the manufacture and use of engines that go beyond the mandatory emission standards, the staff proposed voluntary "Blue Sky" engine standards, at levels lower than the mandatory standards. Staff also proposed additional changes to the exhaust emission regulations and test procedures to more closely align with the federal regulation and ease the certification process.

The evaporative emission regulations would require engine and equipment manufacturers to also control evaporative emissions through the use of low permeation fuel tanks, low permeation fuel hoses, and carbon canisters. Manufacturers must test and certify their engines to a fuel tank permeation standard for handheld equipment and 24-hour diurnal standards for Class 1 and Class 2 equipment. The evaporative emission standards would be phased-in beginning in 2007 for handheld and Class 1 equipment and 2008 for Class 2 equipment.

The exhaust and evaporative emission standards are technically feasible and cost effective. The standards can be met using existing control technologies such as catalysts and carbon canisters. The cost effectiveness ranges from \$0.20 to \$6.21 per pound of HC+NO<sub>x</sub> reduced.

This proposal will provide significant emission reductions and will help to achieve attainment of air quality standards in California.

Implementation of the exhaust and evaporative emission standards will result in a 22 tpd HC+NOx reduction in 2010 and a 50 tpd HC+NOx reduction in 2020.

At the hearing staff also proposed, as 15-day changes, two alternatives for meeting the exhaust and evaporative standards. The alternatives were primarily based on counter proposals submitted by industry at ARB's request. The alternatives achieve essentially the same level of emission reductions as the staff proposal and still enables ARB to meet its SIP commitments. The alternatives provide industry with greater flexibility in implementation and compliance. The Board requested that staff involve industry when developing the details of the alternatives and provide the changes in a 30-day public comment period.

ORAL TESTIMONY:

David Raney, Honda  
Bill Guerry, Outdoor Power Equipment Institute  
Joseph Kubsh, Manufacturers of Emission Controls Association  
Rick Bell, Dupont  
Don Anair, Union of Concerned Scientists  
Jeff Arnold, Association of Rotation Molders  
Jim Medich, City of West Sacramento  
David Modisette, Public Policy Advocates  
Jed Mandel, Engine Manufacturers Association

FORMAL BOARD ACTION:

The Board voted unanimously to approve Resolution 03-24.

RESPONSIBLE DIVISION: Mobile Source Control Division  
Monitoring and Laboratory Division

STAFF REPORT: Yes

**03-7-4: Public Meeting to Consider a Report on Supplemental Activities Related to Zero Emission Vehicles (ZEV)**

SUMMARY OF AGENDA ITEM:

At a public hearing in April 2003, the Board (ARB or the Board) considered and adopted amendments to the ZEV regulation. In addition, supplementary activities like stationary fuel cell applications; hydrogen infrastructure development and transportation systems were discussed as possible methods of

enhancing the implementation of the ZEV regulation. The Board directed staff to report back on the appropriateness of providing ZEV credits for these activities, with the intent of enhancing the commercial success of ZEVs. The staff presentation and informational report were in response to the Board's request.

Summary of staff's findings and proposal:

Using motor vehicle fuel cells in stationary applications has the potential to enhance their development and commercialization. However, staff expressed concern about setting the precedent of mingling stationary and vehicular controls.

Staff recommended not providing ZEV credits for hydrogen refueling infrastructure at this time. The ARB's Clean Fuels Outlet program has a mechanism to trigger infrastructure implementation from energy providers. Therefore, staff found that requiring fuel providers or retailers to deploy hydrogen refueling stations, through the Clean Fuels Outlet Program, to be a more effective way of fostering infrastructure development.

Finally, staff found that transportation systems, in the form of station car or car sharing programs, are valuable to ARB's efforts to improve air quality and currently receive ZEV credit. Therefore, staff recommended expanding the current Transportation System credits to include Neighborhood Electric Vehicles (NEV) and allowing limited, non-NEV, Transportation System Credits to be applied to the Alternative Path.

ORAL TESTIMONY:

Timothy E. Vail, Director Fuel Cell Development, General Motors Corporation

Tom Fulks, Executive Vice President, Green Car Group

Robert Kittell, Owner, ElectriCab Energy Corporation

Kathryn Phillips, Senior Policy Advisor, Center for Energy Efficiency and Renewable Technologies

FORMAL BOARD ACTION: None (Board took no formal action)

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes