

State of California  
AIR RESOURCES BOARD

Summary of Board Meeting  
April 22, 2004

California Environmental Protection Agency / Air Resources Board  
Central Valley Auditorium, Second Floor  
1001 I Street  
Sacramento, CA 95814

MEMBERS PRESENT: Hons. Alan C. Lloyd, Ph.D., Chairman  
Dr. William Burke  
Mr. Joseph Calhoun  
Ms. Dorene D'Adamo  
Supervisor Mark DeSaulnier  
Professor Hugh Friedman  
Dr. William Friedman  
Supervisor Barbara Patrick  
Mr. Matthew McKinnon  
Mrs. Barbara Riordan

AGENDA ITEM #

**04-4-1: Report to the Board on a Health Update**

SUMMARY OF AGENDA ITEM:

Staff summarized a study evaluating the effects of ozone and particulate matter on children who have asthma.

The study followed two groups of asthmatic children residing in southern New England. One group took regular medication for asthma while the other group did not. The first group was considered more severely asthmatic. Children who took regular medication were found to experience more breathing problems and required additional medication when pollution levels increased compared to asthmatics that did not take routine medication. Study results point to ozone as the harmful agent in this study, with little apparent effect from particulate matter. The levels of each of these pollutants were relatively low. For ozone the federal one-hour standard was only violated on three days, the eight-hour standard on ten days, and the federal 24-hour PM2.5 standard was never violated. The study demonstrates that children with asthma, especially those with fairly severe asthma, are not fully protected by the current federal ambient air quality standards.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

**04-4-2: Report to the Board on the Emissions Study of Compressed Natural Gas and Diesel Transit Buses**

SUMMARY OF AGENDA ITEM:

Staff summarized results of a recent ARB study investigating the emissions of CNG and diesel transit buses, with and without exhaust aftertreatment devices. Oxidation catalysts for both diesel and compressed natural gas (CNG) buses and a diesel particle filter (DPF) for a diesel bus were evaluated over multiple driving cycles. Detailed chemical and physical characterization of emissions was accomplished. Of special interest was the comparison of non-regulated emissions of toxic risk significance. Staff reported that after-treatment devices show potentials for significant emission reductions for both CNG and diesel heavy-duty engine applications relative to a conventional diesel engine, but the magnitudes of these reductions differ by pollutant and driving cycle. The Board complimented staff on its thorough analyses and expressed the view that good science, like this study, is fundamental to making good public policy decisions.

ORAL TESTIMONY:

Dr. Chung Liu, South Coast Air Quality Management District  
Dr. Jean Ospital, South Coast Air Quality Management District  
Sam Altshuler, P.E., Pacific Gas & Electric  
Peter Price, California Natural Gas Vehicle Coalition

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

**04-4-3: Indoor Air Quality Board Presentation, Kirk R. Smith, Ph.D., MPH**

SUMMARY OF AGENDA ITEM:

Dr. Kirk R. Smith, a professor in the School of Public Health at the UC Berkeley, presented information on the significance and implications of indoor air quality. Dr. Smith serves on the National Academy of Sciences, various workgroups of the World Health Organization, and the editorial boards of seven international journals, and has published eight books and about 200 articles on the topics of indoor air quality and exposure assessment.

Dr. Smith discussed why indoor air pollution should be regulated, why outdoor pollution control is not sufficient, and approaches that might be used to reduce indoor pollution. Dr. Smith emphasized that the emissions of greatest concern are those that occur where the people are, and that reducing those emissions would result in the greatest reduction of exposure, dose, and risk. Dr. Smith believes that future indoor air quality measures should focus on exposure and suggested more could be done by government to reduce public exposure by revisiting existing authorities and programs for appliances, building codes, consumer products, fuels, public information and education, and additional areas.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

**04-4-4: Report to the Board on the Potential Electrification Programs for Small Off-Road Engines**

SUMMARY OF AGENDA ITEM:

Staff provided information on potential programs to increase the electrification of small off-road engines and equipment. The report focused on several strategies suggested by air pollution control districts, environmental groups, and industry and addressed:

- Emission benefits
- Cost
- Cost-effectiveness
- Feasibility

Staff concluded that the potential to electrify lawn and garden equipment is limited to residential products with lawn mowers being the most likely candidates for further electrification. The strategies focused on in the report yielded small emission benefits and were fairly costly compared to other regulatory programs. Staff further concluded that increased consumer awareness and incentive programs were the most feasible strategies to pursue at this time. The most significant limitation for these strategies is funding. The Board directed staff to continue working with industry and environmental groups to develop a "white paper" on these strategies and look for additional opportunities for further electrification.

**ORAL TESTIMONY:**

Ronald Lloyd, Toro  
Larry Allen, McLane Manufacturing  
David Modisette, California Electric Transportation Coalition  
Steve Heckerth, Energy Conversion Devices, Inc.  
Bill Bruce, B&B Small Engine Repair

**FORMAL BOARD ACTION:** None (Informational Item)

**RESPONSIBLE DIVISION:** Mobile Source Control Division

**STAFF REPORT:** Yes

**04-4-5: Transport Mitigation Update**

**SUMMARY OF AGENDA ITEM:**

In May 2003, the Board strengthened ARB's existing transport mitigation regulation to require upwind districts to (1) adopt "all feasible measures" to reduce ozone precursors and (2) amend their "no net increase" thresholds for permitting to be equivalent to those of their downwind neighbors by December 31, 2004.

Staff updated the Board on air districts progress in complying with these requirements. In Northern California, a four-district group, led by ARB members completed an interdistrict rules comparison to help identify where all feasible measures were lacking. On the statewide level, the California Air Pollution Control Officers Association developed a list of feasible control measures and a protocol to help districts address pollution transport in future ozone plans. Neighboring districts throughout the State have also been working together to share incentive funds.

Staff indicated that the key to the future is maintaining this momentum and translating it into real emission reductions. The Bay Area and Broader Sacramento districts need to adjust their “no net increase” thresholds. All upwind districts need to adopt all feasible measures as required by the transport regulation. Finally, ARB staff is focusing on the all-feasible measure requirement in preparation for the next round of district attainment plans under the California Clean Air Act.

ORAL TESTIMONY:

Mr. Jack Broadbent, Bay Area Air Quality Management District

FORMAL BOARD ACTION: None (Information Item).

RESPONSIBLE DIVISION: Planning and Technical Support Division

STAFF REPORT: Yes.