

**State of California
AIR RESOURCES BOARD**

**Summary of Board Meeting
March 27, 2008**

California Air Resources Board
Byron Sher Auditorium, Second Floor
1001 I Street
Sacramento, California

MEMBERS PRESENT: Mary Nichols, Chairman
Dr. John Balmes
Ms. Sandra Berg
Ms. Dorene D'Adamo
Supervisor Jerry Hill
Mayor Ronald Loveridge
Mrs. Barbara Riordan
Professor Daniel Sperling

Agenda Item #

08-3-1: Report to the Board on a Health Update: Wildfire Smoke and Respiratory Symptoms in Children

SUMMARY OF AGENDA ITEM:

The Air Resources Board (ARB) staff provides the Board with regular updates on recent research findings on the health effects of air pollution. This month, staff presented the findings of research that investigated respiratory responses to smoke exposure.

Smoke from wildfires contributes to air pollution at various times throughout the year in California. In October 2003, a group of wildfires broke out in Southern California, which burned portions of six counties. The fires impacted several of the Children's Health Study sites, offering a unique opportunity to conduct a large-scale investigation of the consequences of wildfire smoke exposure on respiratory health in children. This health update focused on an analysis of the health effects of fire smoke exposure in children who had already been enrolled in the Children's Health Study. The children reported respiratory symptoms, such as cough and eye irritation, with smoke exposure. In addition, the likelihood of experiencing symptoms was significantly greater with six or more days of smoke exposure compared to one to five days of smoke exposure, and also with higher particulate levels, although the increase in likelihood varied among individual symptoms. In this study, the risk of symptoms was higher for non-asthmatics than for asthmatics, although asthmatics had a higher baseline symptoms rate, and smoke-related symptoms were added onto disease-related symptoms. The results also

showed that asthmatics were more likely to take preventive action than non-asthmatics. This is the first study to show that preventive actions reduced the risk of smoke-related symptoms.

Chairman Nichols thanked staff for the presentation. Board Member Riordan asked whether the study had compared communities with greater and lesser smoke exposure, and whether children living in communities close to areas impacted by smoke had more symptoms than children living in communities that were far from the impacted areas. Staff replied that the study showed that children living in communities with higher smoke exposure, as indicated by higher concentrations of PM10, had more symptoms than children living in communities with a lower PM10 level. However, exposure of individual children was not performed, and so spatial variability in smoke exposure was unavailable. Consequently, the study did not address the question of the influence of proximity to a fire, as opposed to community-level smoke exposure.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

08-3-3: Public Meeting to Consider the Revisions to the Carl Moyer Program Guidelines

SUMMARY OF AGENDA ITEM:

Staff provided an overview of the Proposed 2008 Carl Moyer Program Guidelines (Guidelines) revisions. The revisions clarify and simplify administrative requirements to the maximum extent possible, while at the same time maintaining the program's core principles of achieving real, surplus, quantifiable, and enforceable emission reductions that are creditable in the State Implementation Plan. The Guidelines revision also addresses recommendations made by the Department of Finance and the Bureau of State Audits to increase program specificity and oversight. The Guidelines include a new Off-Road Equipment Replacement source category that allows for replacement of old equipment with new, cleaner equipment. Finally, the new Guidelines also update technical information, such as engine emission factors, and increase the program cost-effectiveness limit from \$14,300 to \$16,000 per weighted ton to reflect the impact of inflation.

Staff's presentation also updated the Board on the new Carl Moyer Program Advisory Group (Advisory Group), led by Board member Sandra Berg. The Advisory Group met twice (in December 2007 and

January 2008), focusing on issues related to these Guidelines revisions that were not resolved at the three public workshops. An Advisory Group recommendation to provide flexibility in implementing a Carl Moyer Program retrofit requirement was included in the 2008 Guidelines revisions. This flexibility allows an applicant for off-road projects to opt out of installing a retrofit, if the applicant is made aware they may have to install one later at their own expense due to current or future California regulations. This flexibility will expire after one year unless renewed by the ARB Executive Officer. The Advisory Group also discussed how the updated Carl Moyer Program Guidelines align with the Proposition 1B: Goods Movement Emission Reduction Bond Program to ensure state incentive funds are spent effectively and efficiently. The Board directed the Executive Officer to continue the Advisory Group meetings twice annually, focusing on the future direction of the Carl Moyer Program and other emerging grant programs.

ORAL TESTIMONY:

Fred Minassian, South Coast Air Quality Management District
Paul Buttner, California Rice Commission
Alan Lind, California Council for Environmental and Economic Balance
William Davis, Southern California Contractors Association
Gary Ronman, ECCO Equipment
Marcus Platt
Jennifer Ehn, John Deere
Tim Carmichael, Coalition for Clean Air
Camille Kustin, Environmental Defense Fund

FORMAL BOARD ACTION: The Board voted unanimously to approve Resolution 08-22.

RESPONSIBLE DIVISION: Mobile Source Control

STAFF REPORT: Yes

08-3-4: Public Meeting to Consider Revisions to the 2008 Lower-Emission School Bus Program Guidelines and Funding Allocations

SUMMARY OF AGENDA ITEM:

Staff provided a presentation on the proposed revisions to the Lower-Emission School Bus Program Guidelines (Guidelines) and funding allocations for the 2007-2008 fiscal year (FY). Proposition 1B, approved by California voters on November 7, 2006, enacts the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, which authorizes \$200 million for replacing and retrofitting school buses throughout California. Senate Bill 88 (SB 88, Stats 2007, Ch. 181) is the

enabling legislation for the expenditure of Proposition 1B funds. The Legislature appropriated, and Governor Schwarzenegger approved, \$193 million in the 2007-2008 FY budget to ARB for cleaner, safer school buses.

The revisions to the Guidelines include allocations based on the funding hierarchy set forth in SB 88 and strengthened accountability measures that address Governor Schwarzenegger's Executive Order S-02-07, which requires increased transparency in the expenditure process for bond proceeds.

Based upon the requirements of SB 88, ARB allocated funding to air districts to replace the remaining 1976 and older model year (MY) public school buses in California, and allocated the remaining funding to air districts based on each air district's share of the 1977 through 1986 MY school bus population. After ensuring funding for replacing all pre-1977 MY buses, air districts have the discretion to determine how to allocate their remaining funding between replacement of 1977 through 1986 MY school buses and installation of ARB-verified diesel retrofit devices.

The funds provided in the 2007-2008 FY State budget will cover up to \$140,000 of the cost of a new replacement bus, and up to \$20,000 of the cost of an installed diesel retrofit device. A school district must provide \$25,000 in match funding for each new bus purchased to replace a 1977 through 1986 MY bus. There are no match funding requirements for replacing pre-1977 MY buses or retrofitting buses.

The Board approved the funding allocations and the revisions proposed by staff, with one modification to be added to the resolution: the Board granted the Executive Officer the authority to adjust the school bus replacement match requirement where necessary.

ORAL TESTIMONY:

Ralph Meza, Fresno Unified School District
Stephen Rhoads, School Transportation Coalition
John D. Clements, Kings Canyon Unified School District
Nikki Hughes, San Juan Unified School District
Kirk Hunter, Southwest Transportation Agency/
Southwest Education Support Center
Tom Carroll, Shasta Union High School District
Raul "Bernie" Orozco, Sempra Energy
Dr. Joseph Kubsh, Manufacturers of Emission Controls Association
Tim Carmichael, Coalition for Clean Air
Bonnie Holmes-Gen, American Lung Association of California
Fred Minassian, South Coast Air Quality Management District

FORMAL BOARD ACTION:

The Board approved Resolution 08-23 by a unanimous vote, with the modification noted above.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

08-3-5: Public Hearing to Consider the Adoption of the 2008 Proposed Amendments to the California Zero Emission Vehicle Regulations

SUMMARY OF AGENDA ITEM:

ARB staff recommended that the Board adopt proposed amendments to title 13, California Code of Regulations (CCR), sections 1900, 1961, 1962, and 1962.1 and the incorporated "California Exhaust Emission Standards and Test Procedures for 2005 and Subsequent Model Zero-Emission Vehicles, and 2001 and Subsequent Model Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes;" and a new title 13, CCR, section 1962.1 and the incorporated "California Exhaust Emission Standards and Test Procedures for 2009 and Subsequent Model Zero-Emission Vehicles" set forth in the proposed Regulation Order in Appendix A of the Initial Statement of Reasons along with additional changes as proposed at the hearing.

Staff recommended that ARB amend the Zero Emission Vehicle (ZEV) Program regulations to create a "New Path" for 2012 and subsequent model years, establish carry-forward and carry-back provisions for ZEV credits, provide more equal treatment of battery electric vehicles, adjust the credits for advanced technology partial ZEVs (AT PZEVs) and neighborhood electric vehicles (NEVs), extend the travel provision, modify the transition for intermediate volume automakers, and release ZEV production and credit bank data. Other minor proposed changes were also included.

Staff proposed additional changes (Attachment B) to those that were presented in the Initial Statement of Reasons. These were made available to the public at the hearing. These changes included:

- A large volume manufacturer electing to be subject to the alternative compliance requirements during model years 2009 through 2011 must produce, deliver for sale, and place in service in California enough Type III ZEVs to generate ZEV credits sufficient to meet a cumulative percentage ZEV requirement of 0.84 percent of the manufacturer's average annual California sales of PCs, LDT1s, and 68 percent of LDT2s over the three-year period from model years 2003 through

2005, or submit an equivalent number of credits generated by such vehicles.

- ZEV credits generated from production by an intermediate volume manufacturer (IVM) prior to being subject to large volume manufacturer requirements may be carried forward and applied to the first three years of meeting ZEV requirements as a large volume manufacturer.
- The value of ZEV credits generated in any state that is administering the California ZEV requirements pursuant to section 177 of the Clean Air Act shall be multiplied by the ratio of total large volume manufacturer sales in such state for the subject model year to total large volume manufacturer sales in California for the same model year.
- ZEV credits for advanced technology demonstration projects may be earned for up to 25 vehicles in a demonstration program.

ORAL TESTIMONY:

David Greene, Oak Ridge National Laboratory
Sigmund Gronich, Charisma Consulting
Robert Cassidy, Nissan
Dave Flanagan, UTC Power
Richard Kelly, Private Citizen
Andrew Simpson, Tesla Motors
Sara Rudy, Ford Motors
Andrew Frank, ITS, UC Davis
Earl Killian, Private Citizen
Marc Geller, SFEVA
Warren Gifford, Private Citizen
Bill Reinert, Toyota
Michael Lord, Toyota
Steven Flint, New York State Dept. Environmental Conservation
James Woolsey, Vantage Point Power
Matt Miyasato, SCAQMD
Chelsea Sexton, Plug-in Power
Dave Underwood, Plug Power
Chris Paine, Private Citizen
Jay Friedland, Central Coast EAA (Plug-in America)
Peter Greer, Private Citizen
Ron Freund, Electric Auto Association
Norman Plotkin, CAWA/AAIA
Ben Knight, Honda
David Modisette, CA Electric Transportation Coalition
Bonnie Holmes-Gen, ALA
Robert Sawyer, UC Berkeley
Daniel Emmett, Energy Independence Now
Jamie Knapp, ZEV Alliance

Daniel Davids, Seattle Electric Vehicles Association
Reg Mordlin, Chrysler
Rick Kasper, Global Electric Motorcars
Stephen Ellis, American Honda Motors Co.
Paul Scott, Solar City
Ze'ev Dvori, Tesla Motors
Adam Smith, Google.org
Alan Weverstad, General Motors
Randy Reisinger, CalCars
Aki Yasuoka, Honda
Ted Flittner, 1 Ample World
Joy Turock, Private Citizen
Jay Smith, Private Citizen
Spencer Quong, Union of Concerned Scientists
Luke Tonachel, Natural Resource Defense Council
John Shears, Center for Energy Efficiency and Renewable Technologies
Francios Choquette, Private Citizen
David Turock, Private Citizen
Stuart Johnson, Volkswagen
Doug Korthof, Private Citizen
Bill Pascarella, Private Citizen
Walter Puetz, Mercedes-Benz
Lisa Rosen, Private Citizen
Leonard Tramiel, Private Citizen
Karl-Heinz Ziwica, BMW of North America
David Patterson, Mitsubishi
Thad Balkman, Phoenix Motorcars
Besir Dunlap, EV Driver
Linda Nichols, Plug-in America
Lydell Anderson, Private Citizens
William Korthof, EAA
Sherry Boschert, Sierra Club of CA
John White, Center for Energy Efficiency and Renewable Technology
Tim Carmichael, Coalition for Clean Air
Phil Baxley, Shell Hydrogen
Steve Heckerth, ASES
Cynthia Verdugo-Peralta, Asthma and Allergy Foundation of America,
Southern California Chapter
Tom Folks, Mighty Com

FORMAL BOARD ACTION:

The Board approved Resolution 08-24, which adopted some of the staff's proposal and proposed modifications along with additional Board modifications, by a unanimous vote. The Board's modifications and directions included:

- Keep unchanged the requirement that vehicle manufacturers produce at least 25,000 ZEVs during 2012-2014, and 50,000 ZEVs from 2015-2017.
- Increase flexibility by providing a new option to the above requirements. The new option allows manufacturers in 2012-2014 to produce a greater number of plug-in hybrid electric vehicles (PHEV) (58,000) or similar vehicles, if 7,500 pure ZEVs are also produced. If this option is not taken, 25,000 pure ZEVs would be required during the 2015-2017 timeframe.
- Create new Type V fuel cell vehicles earning seven credits and defined as a ZEV with a 300-mile or greater range and fast refueling capabilities.
- Make the credit banks of manufacturers fully transparent, including trades, beginning in model year 2010.
- Do not revise the IVM transition, which provides six years lead time before becoming subject to the ZEV requirements for a large volume manufacturer.
- During the 15-day comment period, staff shall consider the following:
 - Additional credit for PHEVs that can drive the US06 cycle on electricity. One to three tenths of a credit is the possible change.
 - Review the comments of the Union of Concerned Scientists and the Natural Resources Defense Council (submitted March 26, 2008) regarding potential changes to the regulations, and propose revisions in the 15-day process if appropriate.
 - Applying a multiplier to battery electric vehicle credits earned in 2009-2011 that are used to meet non-gold obligations for IVMs, in order to assure there is not a disincentive to produce gold vehicles.
 - Allow IVMs to accrue gold credits for use up to three years after the transition to large manufacturer status.
 - All modifications will be made available to the public for review and comment for 15 days in a Notice of Public Availability of Modified Text. The Executive Officer will consider any comments received during this period before finalizing the regulation.
- Other actions:
 - Develop a program which would assure the availability of alternative fuels needed by ZEVs. Return to the Board with regulations, as appropriate.

- Redesign the ZEV program by the end of 2009 so it will affect the 2015+ model years. The redesign should place the bronze requirement (super-clean conventional vehicles) in the LEV program to further reduce smog emissions, the silver requirement (regular hybrids such as the Prius, and natural gas vehicles) in the Pavley program to reduce greenhouse gas (GHG) emissions in the near term, and greatly strengthen the gold requirement to meet the need of moving advanced, low GHG technology vehicles from the laboratory and demonstration phase to commercialization, where they are critical to achieving the Governor's GHG emission reduction goals.
- Consider in the redesign of the program the metric for determining performance of PHEVs (electric range vs. usable battery energy).

RESPONSIBLE DIVISION: Mobile Sources Control Division

STAFF REPORT: Yes