

**State of California
AIR RESOURCES BOARD**

**Summary of Board Meeting
July 24, 2008**

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

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

Agenda Item #

08-7-1: Health Update: Short-Term Health Effects Associated with Exposure to Air Pollution during Exercise

SUMMARY OF AGENDA ITEM:

The Air Resources Board staff provides the Board with regular updates on recent research findings on the health effects of air pollution. This month staff presented findings from research that investigated the link between short-term health effects and air pollution among people who were exposed while exercising.

The association between exposure to air pollution and adverse health effects is well established. However, specific populations have an even greater risk for air pollution effects. For example, people who exercise outdoors are an at-risk group that is often overlooked. Breathing patterns change while exercising, exposing those individuals to proportionately more pollution while active than at rest. The focus of this presentation was on exercising adults with asthma. The investigators examined 60 adult asthmatics in London and found that they had significant short-term health effects, including airway inflammation and a six percent decrease in lung function, after exercising in areas near diesel traffic compared to areas with no

vehicular traffic. Staff also presented findings from other studies which showed associations between exercise, air pollution and health outcomes, such as DNA damage and a reduction in the body's ability to deliver oxygen to the heart. The findings from the studies presented indicate the importance of ARB's continued effort to reduce air pollution impacts on the public, including potentially sensitive groups such as those who exercise outdoors.

Dr. Balmes commented on the increased dose of pollution that would be received during exercise and on the importance of keeping pollution exposures in mind when designing communities. Dr. Telles was concerned that our Particulate Matter 2.5 standards are not protective enough, given the relatively low levels of PM2.5 that were associated with adverse effects in the study presented. Staff researched this question and found that levels of PM2.5 were probably underestimated and measured over only a two-hour period. Dr. Telles was also concerned that monitors in the San Joaquin Valley are not placed adjacent to freeways where the greatest exposure would be expected. Lynn Terry explained that federal law dictates placement of air quality monitors. Chairman Nichols commented that there are two types of monitoring: regional, which is dictated by Federal law, and local, which is carried out for special projects. She also commented that land use needs to be incorporated into community planning and that more small scale monitoring would be useful. Bart Croes informed the Board that small scale monitoring performed in the Harbor Communities Monitoring Study would be presented at the September Board Hearing.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

08-7-3: Public Meeting to Consider the Fiscal Year 2008-2009 Research Plan

SUMMARY OF AGENDA ITEM:

Staff presented the draft report entitled, "Planned Air Pollution Research, Fiscal Year 2008-2009," which includes research projects to support policy and regulatory priorities in the areas of health effects and air quality standards, climate change, diesel and goods

movement, atmospheric science, State Implementation Plan support, and toxic air contaminants. The report identifies critical research gaps and describes proposed research projects, with eleven projects totaling \$6.6 million recommended for funding and 19 additional projects recommended if funding becomes available.

ORAL TESTIMONY: None

FORMAL BOARD ACTION:

The Board approved Resolution 08-34 by a unanimous vote.

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: Yes

08-7-4: Public Meeting to Consider Proposed Regulation for Fuel Sulfur and other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline

SUMMARY OF AGENDA ITEM:

In September 2000, the California Air Resources Board (Board) adopted a comprehensive Diesel Risk Reduction Plan, establishing a goal of reducing diesel PM emissions and the associated health risk by 75 percent in 2010 and 85 percent in 2020. Further, in April 2006, the Board approved the Emission Reduction Plan for Ports and Goods Movement in California, which outlines a comprehensive strategy to meet an 85 percent diesel PM risk reduction target from goods movement activities. This proposed regulation for ocean-going vessels is a major step toward achieving the goals of these plans. In addition to diesel PM reductions, the proposed regulation would reduce ozone and PM precursor emissions, which would improve the air quality in many of California's coastal regions and help meet State Implementation Plan obligations.

The proposed regulation requires ocean-going vessel main (propulsion) diesel engines, auxiliary diesel engines, diesel-electric engines, and auxiliary boilers to operate on cleaner-burning, lower sulfur distillate fuels within the 24 nautical mile zone along the California coastline. The fuel requirement is implemented in two phases with progressively more stringent fuel sulfur levels. The first phase of the proposal begins on July 1, 2009 for main engines and auxiliary boilers. For auxiliary engines, the first phase begins on the effective date of the proposed regulation. Phase one requires vessel

operators to use either marine gas oil (MGO) or marine diesel oil (MDO) with a sulfur limit of 0.5% or less. Phase two begins on January 1, 2012 for the main engines, auxiliary engines and auxiliary boilers. Phase two requires vessel operators to use either MGO or MDO, both meeting a sulfur limit of 0.1% or less.

The proposed regulation includes several exemptions to accommodate special circumstances. Exemptions are provided for safety and for vessels that require essential modifications to comply with the in-use fuel requirements. The proposal also includes a noncompliance fee option where, under special circumstances, the vessel operator is allowed to pay a fee in lieu of direct compliance with the fuel requirements. In the case where Phase two fuel is not available outside California, a provision is included to purchase fuel at the first port visit within the regulated waters.

Ocean-going vessel owners or operators would also be required to maintain records that allow ARB enforcement staff to verify compliance with the regulation.

Prior to approval, the Board heard oral testimony from seven parties encouraging the Board's adoption of this regulation. The parties included the South Coast Air Quality Management District, the Port of Long Beach, the Port of Los Angeles, Friends of the Earth, Coalition for Clean Air, and the National Resources Defense Council. Testimony in opposition to the proposed regulation was provided by the Pacific Merchant Shipping Association. Intertanko and the U.S. Navy provided neutral oral testimony.

ORAL TESTIMONY:

Heather Tomley-Senior Environmental Specialist, The Port of Long Beach
John Kaltenstein, Friends of the Earth
Tim Carmichael, Coalition for Clean Air
Candice Kim, Coalition for Clean Air
Diane Bailey, National Resources Defense Council
Christopher Patton-Environmental Affairs Officer, The Port of Los Angeles
Randal Friedman, U.S. Navy, Southwest Region
Henry Hogo, Assistant Deputy Executive Officer, South Coast Air Quality Management District
T.L. Garrett, Pacific Merchant Shipping Association
Joe Angelo, Deputy Managing Director, Intertanko

FORMAL BOARD ACTION:

The Board unanimously approved Resolution 08-35 with the proposed 15 day changes that include modifying the definition of essential modifications and removing the sunset date in the essential modifications exemption provision. The Board also delegated to the Executive Officer the authority to terminate or modify the requirements of this section, without returning to the Board, if the International Maritime Organization or U.S. Environmental Protection Agency adopts regulations that achieve equivalent benefits to this regulation.

RESPONSIBLE DIVISION: Stationary Source Division

STAFF REPORT: Yes

08-7-5: Public Hearing to Consider Amendments to the Current Spark-Ignition Marine Engine and Boat Regulations

SUMMARY OF AGENDA ITEM:

Staff proposed, and the Board adopted, amendments to the existing spark-ignition marine regulations and test procedures that allow small volume manufacturers of high performance sterndrive engines to comply with a relaxed exhaust standard for combined hydrocarbons and oxides of nitrogen (16.0 grams per kilowatt-hour (g/kW-hr) HC+NOx) in exchange for the installation of evaporative control carbon canisters, low permeation hoses, and non-permeable fuel tanks on all vessels using high performance engines beginning in 2009. The incorporation of evaporative controls fully compensates for the change in emission benefits resulting from the less stringent exhaust standards for small volume manufacturers. The Board also adopted carbon monoxide standards for all categories of spark-ignition marine engines, a reclassification of jet boat engines necessitating compliance with more stringent exhaust standards beginning in 2010, and other amendments to streamline the regulations through harmonization with proposed United States Environmental Protection Agency requirements and simplified certification and testing procedures.

At the hearing staff proposed, and the Board adopted as 15-day changes, an addendum to the original proposal that provides large volume manufacturers of high performance engines with additional flexibility for complying with the original 5.0 g/kW-hr HC+NOx exhaust standard, including the option to independently propose alternative control measures that would generate equivalent and verifiable emission reductions. Other provisions in the addendum include an allowance for jet boat engine manufacturers to continue certifying new

engines in 2010 and 2011 to the standards for personal watercraft so long as the new engines were replacements for existing engines and at least as clean, and a change to the originally proposed definitions for small and large volume manufacturers, including the creation of a new intermediate category, to facilitate the entry of small volume manufacturers into new markets and to promote fair competition.

ORAL TESTIMONY:

Patrick Moran, Aaron Read & Associates, LLC
Rasto Brezny, Manufacturers of Emission Controls Association
John McKnight, National Marine Manufacturers Association
Paul Ray, Ilmor Marine/Engineering, Inc.
Sean Whelan, Attwood
Mark Riechers, Mercury Marine
Dan Ostrosky, Yamaha Motor Corporation, USA
Tim Carmichael, Coalition for Clean Air

FORMAL BOARD ACTION:

The Board unanimously approved Resolution 08-36.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

08-7-8: Report to the Board on International Carbon Action Partnership

SUMMARY OF AGENDA ITEM:

Ian Morrow who is on loan from the UK Government gave an overview of European Union's Emission Trading System followed by Margret Kim, from the Chair's Office, who provided an overview and update on the International Carbon Action Partnership.

ORAL TESTIMONY: None.

FORMAL BOARD ACTION: None (Informational item).

RESPONSIBLE DIVISION: Office of the Chair

STAFF REPORT: No

**08-7-9: Report to the Board on Assembly Bill 32 Implementation:
Western Climate Initiative**

SUMMARY OF AGENDA ITEM:

Staff updated the Board on the status and activities of the Western Climate Initiative (WCI) and described how these activities relate to proposed recommendations contained in the Climate Change Draft Scoping Plan. A key recommendation in the Draft Plan is to develop a broad based California cap-and-trade program which would be linked with the efforts of the WCI. Mr. Michael Gibbs, Assistant Secretary at Cal/EPA and one of California's representatives on the WCI also participated in the presentation.

The WCI is a voluntary alliance of seven US States and four Canadian provinces that have agreed to collaborate in identifying, evaluating, and implementing ways to reduce greenhouse gas emissions. These jurisdictions are working together to create a regional, multi-sector cap-and-trade system to achieve emission reductions. Staff provided an overview of the WCI Program Design Document released on July 23, 2008.

The Board expressed interest in continuing to hear from staff as they further evaluate the role of market measures and the WCI within Scoping Plan development and implementation.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Office of Climate Change

STAFF REPORT: No

08-7-10: Green Chemistry Initiative Overview Report to the Board

SUMMARY OF AGENDA ITEM:

Department of Toxic Substances Control (Department) staff presented an overview of California's Green Chemistry Initiative (Initiative). Secretary for Environmental Protection Linda Adams launched the Initiative in April 2007. The Secretary directed the Department of Toxic Substances Control Director Maureen Gorsen to lead this cross-agency effort. ARB staff participated throughout

the Initiative and also serve on the Executive Leadership Council for the Initiative.

Green Chemistry has been called chemistry's approach to creating a sustainable future. Rather than focusing exclusively on wastes, discharges, and emissions at the "end-of-the-pipe, Green Chemistry involves considering public health and environmental effects during the design of products, processes, and technologies. Implementing green chemistry techniques can help protect human health and the environment while opening new economic opportunities in the design and use of chemicals, materials, products, and processes.

The Initiative is divided into two phases. During Phase One, from April to December 2007, the public, regulators and other stakeholders participated in workshops and an Internet based forum to brainstorm policy options. More than 800 options were compiled into the Phase One report, "California Green Chemistry Initiative Phase 1: A Compilation of Options."

As part of the Initiative, Director Gorsen formed a Science Advisory Panel (Panel), a public advisory group structured to provide balanced, expert assessment of scientific matters pertaining to the advancement of green chemistry. The Panel delivered in June 2008 its report entitled, "Green Chemistry Options for the State of California, A Report from the Green Chemistry Initiative Science Advisory Panel to Department of Toxic Substances Control Director Maureen Gorsen." The Panel's report augments the wide array of policy options which stakeholders submitted to the Department during Phase One.

In Phase Two, the Department is evaluating and synthesizing the options in the Phase One report and the Panel's report along with substantial comments from stakeholders at numerous workshops, forums, and other venues. The Department anticipates submitting its draft Phase Two recommendations report to the Secretary in August 2008.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Department of Toxic Substances Control

STAFF REPORT: No