

State of California
AIR RESOURCES BOARD

Summary of Board Meeting
June 21 & 22, 2007

California Air Resources Board
Los Angeles Airport Marriott Hotel
Los Angeles, California

MEMBERS PRESENT: Dr. Robert Sawyer, Chairperson
Ms. Sandra Berg
Ms. Judith Case
Ms. Dorene D'Adamo
Henry Gong, Jr., MD
Supervisor Jerry Hill
Ms. Lydia Kennard
Mrs. Barbara Riordan
Mr. Ron Roberts
Dr. Daniel Sperling

Agenda Item #

07-7-1: Health Update: Influence of Genetic Variants on Ozone Responses of Asthmatic Children

SUMMARY OF AGENDA ITEM:

The staff of the Air Resources Board (ARB or the Board) 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 recently published on the influence of two genetic variants on respiratory health of asthmatic children exposed to ozone. The relationship between ozone air pollution and adverse health effects is well established. However, there are large differences between responsiveness of individuals, and little is known about the basis of this variability. Previous studies have suggested that some common variants in a class of genes involved in production of enzymes that protect the tissues from damage from oxidants may influence susceptibility to adverse effects from ozone exposure. The focus of this health update was a study on asthmatic children in Mexico City, which found that children with certain variants of the studied genes were more susceptible to developing adverse respiratory symptoms when exposed to ozone than

asthmatic children with other variants in the same genes. The findings emphasize the importance of genetic makeup in explaining ozone responsiveness, and provide information that helps to explain the wide variability in responsiveness in the population. The results of this and similar studies investigating the basis of vulnerability to air pollution health effects provide critical information toward ensuring that ambient air quality standards protect the most vulnerable members of the population.

Board Member Dr. Henry Gong commented that research into the genetic contribution to susceptibility to air pollution exposure is an important topic that should be explored further. He remarked that the results of the study presented are likely also relevant for explaining the wide range of responsiveness in healthy populations, and that results from this type of study are important to ensuring that ambient air quality standards are adequately protective of the most susceptible sub-population(s). He also inquired as to whether there have been any publications based on the Children's Health Study cohort on the contributions of genetic variations to responses to air pollutants. Staff indicated that the investigators working on the Children's Health Study have to date analyzed the genetic information only with respect to susceptibility to respiratory infections and long-term consequences of environmental tobacco smoke.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

07-7-2: Public Meeting to Consider Research Proposals

SUMMARY OF AGENDA ITEM:

Staff described the objective and expected results for the following four research proposals.

1. "On-Road Motor Vehicle Emissions Measurements Including Ammonia, Sulfur Dioxide, and Nitrogen Oxide," University of Denver, \$95,000.

2. "Effect of GSTM1 Phenotype on Ozone-Induced Allergic Airway Inflammation," University of California, San Francisco, \$250,000.
3. "Cardiovascular Health Effects of Fine and Ultrafine Particles During Freeway Travel," University of California, Los Angeles, \$50,000.
4. "Disaggregated Estimate of Energy-related Carbon Dioxide Emissions for California," Lawrence Berkeley National Laboratory, \$30,000.

ORAL TESTIMONY: None.

FORMAL BOARD ACTION:

The Board adopted Resolution numbers 07-22, 07-23, 07-24, and 07-30. Dr. Gong recused himself from Resolution 07-24.

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

07-7-3: Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Reports, Summary for Policymakers

SUMMARY OF AGENDA ITEM:

This is the second in a series of biannual updates to the Board on recent, significant findings from climate change research. This update summarizes the IPCC 4th Assessment reports.

Through the IPCC, climate experts from around the world synthesize the most recent climate science findings every five to seven years. The IPCC has issued comprehensive assessments in 1990, 1996, and 2001; its 4th Assessment Report is being released in sections this year. The summary for policymakers was written by the working group's lead authors, reviewed in two stages by technical experts, and finally approved for release by governmental representatives of more than 100 countries. Several climate scientists from California institutions and national Laboratories are main authors of the report.

The IPCC 4th assessment finds that it is "very likely" that emissions of heat-trapping gases from human activities have caused "most of

the observed increases in globally averaged temperatures since the mid-20th century.” Adaptation will be more challenging in developing countries than in developed countries, due to constraints on adaptive capacity. For example, new studies confirm that Africa is one of the most vulnerable continents to climate variability because of multiple stresses and low adaptive capacity. Some adaptation to current climate variability is taking place; however, this may be insufficient for future changes in climate. A wide variety of national policies and instruments are available to governments to create the incentives for mitigation action. For more information on the IPCC assessment reports, please visit the IPCC’s website www.ipcc.ch.

The Board asked to receive periodic reports on the state of climate change science, and positive examples resulting from actions for mitigating global warming in cities in U.S. or around the world. In response, staff will prepare quarterly written updates on climate change science. In December 2007, staff will update the Board again on case studies about mitigation of climate change.

The Board also asked about the North America temperature changes for the past 100 years that show levels increased significantly in the 2nd half of the 20th century, and whether it will continue to be an exponential increase if no action is taken. Staff responded that if we follow a business-as-usual course, temperatures are expected to rise dramatically as shown in this presentation, and this projection is strongly supported by both observational data and climate model prediction.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (informational item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

07–7–4: Consideration of Recommendations for Discrete Early Actions for Climate Change Mitigation in California

SUMMARY OF AGENDA ITEM:

AB 32, the California Global Warming Solutions Act of 2006, mandates that ARB identify a list of “discrete early action greenhouse gas reduction measures” by June 30, 2007 (Health and

Safety Code section 38560(a)). Once on the list, these measures are to be developed into regulatory proposals, adopted by the Board, and made enforceable by January 1, 2010.

ARB's staff report entitled: "Early Actions to Mitigate Climate Change in California" presents three groups of early action strategies. Group 1 contains three discrete early actions pursuant to the language of AB 32 including the Governor's Low Carbon Fuel Standard, reduction of refrigerant losses from motor vehicle air conditioning maintenance, and increased methane capture from landfills. Group 2 contains 23 measures to be pursued with direct impacts on climate in the 2007-2011 timeframe. Group 3 includes 11 measures already underway for criteria pollutant or air toxic controls that have the potential for climate co-benefits.

The Group 1, 2 and 3 measures will reduce GHG emissions between 33-46 MMTCO₂E by 2020 relative to projected levels. Existing ARB regulations will contribute an additional 30 MMTCO₂E (e.g., AB 1493). These estimates *exclude* the benefits from reducing diesel particulate matter, ozone precursors and other pollutants since the CO₂ equivalent effects are yet to be determined. Together, these measures will make a substantial contribution to the overall 2020 statewide emission reduction goal of approximately 174 MMTCO₂E.

After making introductory remarks Chairman Sawyer asked Executive Officer Witherspoon to introduce the item. Following her introduction, ARB staff presented the proposed early action measures. This presentation included an AB 32 implementation timeline, a detailed discussion of discrete early actions, a timeline for bringing all early 37 action measures before the Board, a discussion of known issues, and staff's recommendations for the adoption of an early action resolution and for follow-up development and reporting.

Immediately following the conclusion of the staff presentation, the co-chair of the Environmental Justice Advisory Committee (EJAC), Ms. Johnson-Meszaros, presented the findings and recommendations of that committee regarding early action measures. This presentation was followed by a lengthy question and answer session between Board members, ARB Staff, and Ms. Johnson-Meszaros. During this session ARB staff addressed each of the EJAC recommendations.

Approximately three hours of public testimony followed. Of the 53 testifiers, 31 were in support, 10 were in opposition, and 12 were neutral regarding the recommendations by staff.

Following public oral testimony, each Board member was given the floor, in turn, to address staff and to voice their perspectives on the early action item.

Each Board member declared relevant ex parte communications, and a series of thee votes was taken. This concluded the Board's consideration of this item.

ORAL TESTIMONY:

Ms. Johnson-Meszaros, the co-chair of the EJAC, presented the committee's recommendations regarding early action measures immediately following the staff presentation. The EJAC recommended 34 discrete early action measures, including 13 new strategies not discussed in the ARB staff report.

Following the testimony of the EJAC co-chair, individuals representing a broad spectrum of interests and perspectives provided oral testimony in support of, in opposition to or neutral regarding the Board adoption of the early action measures as presented by staff. The presenters are identified below:

Mr. Leary, California Integrated Waste Management Board
Ms. Reheis-Boyd, Western States Petroleum Association
Mr. Jacob, DuPont Government Affairs
Mr. Thornton, Chemtura
Mr. Quest, EF Products, L.P.
Mr. Plotkin, Plotkin Zinz Associates
Mr. Lowe, Automotive Aftermarket Industry Association
Ms. Oster, Norcal Waste Systems, Inc.
Mr. Wyman, Latham and Watkins L.L.P.
Mr. DiMare, California Chamber of Commerce
Ms. Hunter, Environmental Health Coalition
Ms. Monahan, Union of Concerned Scientists
Mr. Welch, Environmental Defense
Dr. Lyou, California Environmental Rights Alliance
Ms. Suwol, California State Schools
Ms. Babich, Del Amo Action Committee
Mr. Gershen, Tellurian Biodiesel
Mr. Allen, California Air Pollution Control Officers
Mr. Clarke, Sierra Club

Mr. Lucas, California Council for Environmental and Economic Balance
Ms. Seal, Friends for a Livable Planet
Ms. Arguello, P.S.R.
Ms. Shpak, Action Now
Mr. Andrew, Department of Water Resources
Ms. Williams, Environmental Justice Advisory Committee
Mr. Hwang, Natural Resources Defense Council
Ms. Patel, Communities for Clean Ports
Mr. Miras, Environmental Health Coalition
Ms. Holmes-Gen, American Lung Association of California
Ms. Whynot, South Coast Air Quality Management District
Ms. Bailey, Natural Resources Defense Council
Mr. Sandler, Climate Protection Campaign
Mr. Smokoska, Sierra Club
Ms. May, Communities for a Better Environment
Mr. Hwang, Communities for a Better Environment
Mr. Karambelas, FuelCell Energy
Mr. Cohen, Southern California Ecumenical Council
Mr. Stewart, Sierra Club
Ms. McMahon, Center for Energy Efficiency and Renewable Technologies
Mr. Gollay, Southern California Edison
Mr. Fay, International Climate Change Partnership
Mr. Frayre, self
Mr. Carmona, Coalition for a Safe Environment
Mr. Marquez, Coalition for a Safe Environment
Mr. Barbose, Environment California
Mr. Torres, Communities for a Better Environment
Mr. Helget, Sector Strategies
Mr. Leon, Latino Issues Forum
Mr. Gerard, Facilities Protection Systems
Mr. Everts, Desal Response Group
Mr. Carmichael, Coalition for Clean Air
Mr. Magavern, Sierra Club California
Mr. Haller, Sierra Club California

FORMAL BOARD ACTION:

The Board adopted Resolution 07-25 by a vote of 6-3, exclusive of the cool automotive paints early action (Staff report strategy 2-15) and the off-road diesel regulation (Staff report strategy 3-4), and with the change of directing the staff to report to the Board within six months with a further evaluation of the recommendations made by the EJAC, by California Air Pollution Control Officer's

Association, and by the South Coast Air Quality Management District.

The Board voted separately on including the cool automotive paints early action in Group 2, which passed 7-1 with Board member Ms. Berg recused. The Board voted separately on including the off-road diesel regulation early action in Group 3, which passed 7-1 with Board member Ms. Kennard recused.

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: Yes

07-7-5: Public Hearing to Consider Amendments to Motor Vehicle Emission Control and Smog Index Labels Regulations

SUMMARY OF AGENDA ITEM:

Since the 1998 model year, ARB has required a Smog Index Label on new light-duty vehicles to provide vehicle emissions information to consumers. The Smog Index Label identifies each vehicle's relative smog forming potential based on emissions of exhaust non-methane organic gas, oxides of nitrogen, and evaporative hydrocarbons.

In 2005, the Legislature enacted Assembly Bill 1229, which requires ARB to develop a greenhouse gas index and label, and to review the existing Smog Index Label.

Staff proposed amendments to the existing Smog Index Label regulation to add a Global Warming Index and to establish new requirements which specify the size (six inches wide by four inches tall) and appearance to be used by all affected vehicle manufacturers.

For both the Smog Index and Global Warming Index, staff proposed a simple scale from 1-10, where 1 represents the dirtiest vehicle available and 10 the cleanest, based on vehicle emission certification standards and greenhouse gas emission standards respectively.

In addition, the Board directed staff to continue to work with the United States Environmental Protection Agency to try to harmonize Global Warming and Smog scoring, and to consider if a smaller

label could be as affective if placed on the Vehicle's Monroney label.

ORAL TESTIMONY:

Steven P. Douglas, Alliance of Automobile Manufacturers
Kristin Kenausis, United States Environmental Protection Agency
David Raney, American Honda Motor Company, Inc.
John Cabaniss, Association of International Automobile Manufacturers
David Patterson, Mitsubishi Motors North America, Inc.
Patricia Monzlan, Union of Concerned Scientists

FORMAL BOARD ACTION:

The Board unanimously adopted Resolution 07-26, which approved the staff's proposal and proposed minor modifications along with direction to staff to implement a modification proposed by American Honda Motor Company, Inc. The modification proposed by Honda allows as an option the use of a four and half inches by two and half inches or larger display as part of the Monroney label as long as the display is outlined by the contrasting green color specified with a font size large enough to make the information presented sufficiently noticeable and legible. 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 prior to finalizing the regulation.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

07-7-6: Adoption of Regulations for the Certification and Testing of Gasoline Vapor Recovery Systems Using Aboveground Storage Tanks

SUMMARY OF AGENDA ITEM:

Staff presented the proposed Aboveground Storage Tank (AST) Enhanced Vapor Recovery (EVR) regulation and requested adoption and amendment of procedures for the certification and testing of gasoline vapor recovery systems using ASTs. The Board approved the gasoline vapor recovery certification procedure and three new test procedures. The regulations will establish vapor recovery performance standards and specifications that provide

more effective controls to reduce hydrocarbon emissions and save gasoline from ASTs. Several modifications will be made to clarify the regulations. These modifications will be subject to a 15-day public comment period.

State law authorizes the Board to adopt performance standards and procedures for certifying systems to control gasoline vapor emissions from gasoline marketing operations such as gasoline dispensing facilities (GDF). To ensure statewide uniformity, Districts require ARB-certified vapor recovery systems in their rules. In March of 2000, the Board approved the EVR certification regulation for vapor recovery equipment used with underground storage tanks (UST). EVR regulations established new standards for vapor recovery systems to further reduce emissions during storage and transfer of gasoline at GDFs with USTs. Vapor recovery equipment used with ASTs was not included in the adopted rulemaking.

The adoption of the regulation establishes new and amended vapor recovery certification and testing procedures to reduce emissions from GDFs using ASTs and save gasoline. The regulation defines new performance standards and specifications that will reduce emissions from AST standing losses, the daily evaporation of gasoline from these tanks. The regulation also modifies performance standards and specifications that controls transfer emissions to and from the AST, and makes the AST and UST vapor recovery requirements consistent. District rules will need to be amended include standing loss control vapor recovery systems.

Upon full implementation of the adopted regulation on January 1, 2013 (four years after the regulatory effective date) hydrocarbon emissions will be reduced by approximately two tons per day. This is equivalent to approximately 600 gallons of gasoline saved per day from ASTs in California. Including these cost savings, the cost effectiveness of the adopted regulation is approximately \$1.77 per pound of reactive organic gas emissions.

ORAL TESTIMONY:

Roger Isom, California Cotton Ginners Association
Jay McKeeman, California Independent Oil Marketers Association

FORMAL BOARD ACTION:

The Board unanimously adopted Resolution 07-27, which approved the proposed adoption and amendments to the AST vapor recovery

certification and test procedures, subject to a 15-day comment period.

RESPONSIBLE DIVISION: Monitoring Laboratory Division

STAFF REPORT: Yes

07-7-7: Public Meeting to Consider Approval of the Proposed State Strategy for California's State Implementation Plan for the Federal 8-hour Ozone and PM2.5 Standards

SUMMARY OF AGENDA ITEM

Federal clean air laws require areas with unhealthy levels of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and particulate matter to develop plans, known as State Implementation Plans (SIP), specifying how they will attain national ambient air quality standards. SIPs for the 8-hour ozone standard and the fine particulate (PM2.5) standard are due to the U.S. Environmental Protection Agency (U.S. EPA) in June 2007 and April 2008, respectively. ARB and the local air districts are responsible for developing SIPs to attain these standards. The proposed State Strategy addresses statewide emission reduction sources that are the State's responsibility to control. Under State law, ARB has the responsibility to develop SIP strategies for mobile sources, fuels, and consumer products, and to coordinate SIP strategies with the Bureau of Automotive Repair (BAR) and the Department of Pesticide Regulation (DPR).

ARB staff developed a comprehensive State Strategy designed to attain federal air quality standards through a combination of technologically feasible, cost-effective, and far-reaching measures. The proposed State Strategy consists of three components: a commitment to achieve specific emission reductions by specific dates, a commitment to proposed defined new SIP measures for Board adoption, and a long-term strategy commitment. Defined new SIP measures in the State Strategy affect passenger vehicles, heavy-duty trucks, goods movement sources, off-road equipment, fuels and fueling operations, and consumer products. The proposed State Strategy also includes commitments by DPR to reduce pesticide emissions and a commitment by BAR to implement further improvements to the smog check program. The State Strategy also includes a proposed modification to DPR's existing SIP commitment to achieve pesticide emission reductions in the Ventura County nonattainment area.

ARB adoption of the State Strategy as a SIP revision would, after subsequent approval by U.S. EPA, create federally enforceable requirements for ARB, BAR, and DPR to fulfill the commitments set forth in the State Strategy.

ORAL TESTIMONY

John Garamendi, Lieutenant Governor
Miguel Pulido, Board Member, SCAQMD
Gil Cedillo, State Senator
Kiran Hashmi, representing SCAQMD Board Member Jon Perry
Dr. William Burke, Chairman, SCAQMD
Supervisor Gary Ovitt, Board Member, SCAG
Mark Pisano, Executive Director, SCAG
Dennis Yates, Board Member, SCAQMD
Joe Aguilar, Councilmember, City of Commerce
Barbara Messina, Councilmember, City of Alhambra
Michael Cacciotti, Mayor, City of South Pasadena
Tonia Reyes-Uranga, Board Member, SCAQMD
Mary Justice
Phong Ly
Jane Carney, Board Member, SCAQMD
Warren Furutani, President, Board of Trustees, L.A. Community College District
Sid Tyler, Councilmember, City of Pasadena
Sam Hall, representing Senator Alan Lowenthal
Jenifer Zivkovic, representing Assembly Member Better Karnette
Bobby MacDonald, Black Chamber of Orange County
Roye Love, Environmental Commission, City of Carson
Harry Baldwin, Board Member, SCAG
Louie Lujan, Councilmember, City of La Puente
Robert Pullen-Miles
David Ford, representing Assembly Member Ted Lieu
Romel Pascual, Representing Los Angeles Mayor Antonio Villaraigosa
Peter Yao, Mayor, City of Claremont
Elaine Chang, Deputy Executive Officer, SCAQMD
Henry Hogo, Asst. Deputy Executive Officer, SCAQMD
Matt Miyasato, Technology Demonstration Manager, SCAQMD
Jim Stewart, Sierra Club
Paul Wuebben, SCAQMD
Rick McVaigh, San Joaquin Valley APCD
Frank Caponi, County Sanitation Districts of Los Angeles County
Allan Lind, California Council for Environment and Economic Balance
Mike Eaves, California Natural Gas Vehicle Coalition

Eric Walts, Staff Counsel, Department of Pesticide Regulation
Rex Laird, Farm Bureau of Ventura County
Nury Martinez, Mayor Pro-Tem, City of San Fernando
Rick Tomlinson, Strawberry Commission
Rebecca Overmyer-Velazquez, North Whittier Neighborhood Watch
D. Douglas Fratz, Consumer Specialty Products Association
Joseph Yost, Consumer Specialty Products Association
Philip Huang, Communities for a Better Environment
Barbara Baird, SCAQMD
Tim Carmichael, Coalition for Clean Air
Todd Campbell, Clean Energy
Robina Suwol, California Safe Schools
Larry Beeson, Loma Linda University
Travis Lange, City of Santa Clarita
Francine Litson, Asthma and Allergy Foundation, California Chapter
Martha Cerda, Worksome California Career Partners
Romie J. Lilly II, Reverent, Central Baptist, Inglewood
Pamela Bates, Concerned Citizens
Terry Roberts, American Lung Association
Rev. Leon, Latino Issues Forum
Jenny Saklar, Fresno Metro Ministry
Ty Schuiling, San Bernardino Associated Governments
Patricia Etem, Breathe California of Los Angeles County
Linda Nicholes, Plug in America
Liza Bolanos, Central Valley Air Quality Coalition
Colleen Callagan, American Lung Association
Edwin Dietrich, Center on Race, Poverty, and the Environment
Luis Cabrales, Coalition for Clean Air
Mati Waiya, Wishtoyo Foundation, Ventura Coastkeeper
Richi Chandiok, CRPE
Michael Miltenberg
Henna Pithia
Grace Jun
Angela Tensvold
Adrian Martinez, Natural Resources Defense Council
Lori Huddleston, Los Angeles County Metropolitan Transportation
Authority
Bill LaMarr, California Small Business Alliance
Bill Magavern, Sierra Club
Jane Affonso, South Coast Interfaith Council
William D. Smart Jr., Reverend, L.A. Alliance for a New Economy
Faramarz Nabavi
Donna Barnett, The Barnett Company
George S.
Nidia Bautista, Coalition for Clean Air
Matt Keener, American Lung Association

Gisele Fong, Communities for Clean Ports
Barry Wallerstein, Executive Officer, SCAQMD

FORMAL BOARD ACTION

At the June 22, 2007 hearing, the Board expressed its preference not to act on the proposed State Strategy until it could be jointly considered with the South Coast SIP, which was scheduled to be considered at the Board's September 27, 2007 hearing. However, the Board was concerned about the potential impacts on transportation planning activities in the San Joaquin Valley if there were a delay, and directed ARB staff to determine whether it would need to consider the State Strategy at its July 26, 2007 hearing in order to avoid these problems. The Board voted unanimously to continue the matter to allow staff to conduct its investigation.

Staff subsequently determined that delaying consideration until September 27, 2007 would not adversely impact transportation planning activities in the San Joaquin Valley. Therefore, consideration of the proposed State Strategy was continued until September 27, 2007.

RESPONSIBLE DIVISION: Planning and Technical Support Division

STAFF REPORT: Yes