

State of California  
AIR RESOURCES BOARD

Summary of Board Meeting  
**September 28, 2006**

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

MEMBERS PRESENT: Chairman Robert Sawyer  
Ms. Sandra Berg  
Doreen D'Adamo  
Supervisor Mark DeSaulnier  
Dr. Henry Gong, Jr.  
Mayor Loveridge  
Ms. Barbara Riordan  
Supervisor Ron Roberts

**Agenda Item #**

**06-8-1: Report to the Board on a Health Update: Indoor Air Chemistry and Implications for Health**

SUMMARY OF AGENDA ITEM:

The ARB staff provides the Board with regular updates on research findings on the health effects of air pollution. This month, staff presented the results of a recent ARB-funded study conducted by Dr. William Nazaroff at UC Berkeley, and investigators from Lawrence Berkeley National Laboratory, who measured primary and secondary emissions from cleaning products. The investigators found that direct emissions of toxic air contaminants (TAC) from cleaning products do not appear to pose a health risk. Only three TACs were detected, and chamber concentrations of these TACs were below guideline levels set to protect public health. However, secondary emissions from indoor chemical reactions may pose a previously unrecognized health risk.

In reactivity tests for secondary emissions, the investigators found that the terpenes emitted from cleaning products in the presence of ozone led to substantial formation of

formaldehyde and ultrafine particles. Terpenes, such as  $\alpha$ -pinene and d-limonene, are often added to cleaning products for their solvent properties and favorable fragrance.

Formaldehyde was produced at levels that exceed OEHHA's Chronic Reference Exposure Level of 2.4 ppb, which is based on protection against irritation of the eyes and respiratory system, and the Proposition 65 no significant risk level for cancer of 1.3 ppb. The generation of ultrafine particles from a single cleaning event resulted in high ultrafine particle counts that were estimated to produce sufficient mass to exceed  $35 \mu\text{g}/\text{m}^3$ , the level of the new federal 24-hour fine particle standard.

Dr. Henry Gong asked about the reactivity of terpenes with other oxidants such as nitrogen oxides. Staff responded that, in one experiment, the investigators measured reactive chemistry when both ozone and nitrogen dioxide were present: some compounds displayed greater reactivity than they did with ozone alone, presumably due to reaction with nitrate radicals.

Ms. Dorene D'Adamo asked for clarification on the selection process for the cleaning products studied, and commented on the strong objectionable odors associated with many products. Staff indicated that products were selected for study based on high usage in California and the likelihood that they would contain compounds of interest (TACs and terpenes). Odor was not a consideration.

Based on recommendations listed in the final report and discussed after the presentation, the Board asked that a fact sheet be prepared on practical measures citizens can take to reduce their exposure to secondary emissions from cleaning products and air fresheners.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: None (Informational Item)

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: No

**06-8-2:**

**Public Meeting to Consider Research Proposals**

SUMMARY OF AGENDA ITEM:

The Board considered the following research proposal.

- "Ventilation and Indoor Air Quality (IAQ) in Small and Medium Commercial Buildings (SMCB) Phase II Field Study," University of California, Davis, Proposal No. 2610-252.

ORAL TESTIMONY: None

FORMAL BOARD ACTION: Approved Resolution No. 06-24

RESPONSIBLE DIVISION: Research Division

STAFF REPORT: Yes

**06-8-3:**

**Public Hearing to Consider Adoption of Amendments to the Hexavalent Chromium Airborne Toxic Control Measure for Chrome Plating and Chromic Acid Anodizing Operations (Chromium Plating ATCM)**

SUMMARY OF AGENDA ITEM:

Staff proposed amendments to the Chromium Plating ATCM that would require best available control technology (BACT) for all facilities. BACT would be determined based on throughput and proximity to sensitive receptors. Staff also proposed amendments that would establish housekeeping requirements and compliance training. A separation requirement for new facilities of 300 meters (about 1,000 feet) was also proposed to ensure that new hexavalent chromium plating and anodizing facilities are not located in residential and mixed use areas, or near schools. If adopted, cancer risk from individual facilities would be reduced by up to 85 percent. Cancer risk from 92 percent of facilities would be reduced to less than or equal to ten per million people exposed.

ORAL TESTIMONY:

Jill Whynot and Ed Pupka, South Coast Air Quality Management District  
Brian Bateman, Bay Area Air Quality Management District  
Daniel Cunningham, John Marrs, Sylvia Rodriguez,  
Alan Olick, Ed Appleton, Frank Grana, Allan Jones, Dean High, Paramo Hernandez, Ray Lucas, Sam Bell, Charles Pomeroy, Metal Finishers Association of Southern California/Surface Technology Association  
Jane Williams, California Communities Against Toxics  
Paula Forbis, Environmental Health Coalition  
Maria Brook and Anita Sison, Willits Residents  
Bonnie Holmes, American Lung Association  
Bill Magavern, Sierra Club of California

FORMAL BOARD ACTION:

The Board voted to continue the hearing until the November 17, 2006 hearing (subsequently postponed to December 7, 2006) and directed staff to develop a revised proposal in consideration of testimony and comments from Board members. The Board also directed staff to work with the air districts on determining criteria to be used to demonstrate alternative means of compliance with the Chromium Plating ATCM.

RESPONSIBLE DIVISION: Stationary Source Division

STAFF REPORT: Yes

**06-8-4:**

**Public Hearing to Consider Technical Status and Proposed Revisions to Malfunction and Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines (OBD II) and Emission Warranty Regulations**

SUMMARY OF AGENDA ITEM:

The staff proposed adoption of amendments to California Code of Regulations (CCR), title 13, sections 1968.2 and 1968.5, which establish OBD II requirements and associated enforcement provisions for 2004 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles

and engines. The staff also proposed adoption of amendments to CCR, title 13, sections 2035, 2037, and 2038, which contain emission control system warranty requirements for 1990 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles and engines.

The majority of the proposed amendments to section 1968.2 are related to monitoring requirements for diesel vehicles. Specifically, the proposal establishes a phase-in schedule for light-duty diesels to meet OBD II requirements similar to those for gasoline vehicles, thereby clearing the way for introduction of diesel passenger cars in California as early as the 2007 model year. For medium-duty diesels, the proposal updates the requirements to make them more consistent with the recently-adopted heavy-duty OBD requirements. Other amendments proposed include refinements and modifications to existing OBD II monitoring requirements and extension of phase-ins for a few requirements. Most of the proposed amendments to section 1968.5 are intended to align the enforcement provisions with the proposed changes to section 1968.2 wherever necessary.

The staff also identified areas in the emission warranty regulations, specifically sections 2035, 2037, and 2038, that require updates. The proposed amendments to the emission warranty regulations eliminate the outdated emission-related parts list used to identify components eligible for high-cost warranty and instead require high-cost warranty coverage for any component that is subject to warranty for 3 years or 50,000 miles (i.e., that illuminates the malfunction indicator light (MIL) when malfunctioning) and meets the inflation-adjusted cost limit.

#### ORAL TESTIMONY:

Steve Douglas, Alliance of Automobile Manufacturers  
John Cabaniss, Association of International Auto  
Manufacturers  
Lisa Stegink, Engine Manufacturer's Association  
Mark Stepper, Cummins, Inc.  
John Trajnowski, Ford Motor Co.  
Timothy Gundrum, International Truck and Engine Corp.  
Don Anair, Union of Concerned Scientists  
Luke Tonachel, National Resources Defense Council  
Bonnie Holmes-Gen, American Lung Association

FORMAL BOARD ACTION:

The Board unanimously adopted Resolution No. 06-26, which approved the amendments with the modifications presented by staff. These modifications will be made available for a supplemental 15-day comment period before final action by the Executive Officer.

RESPONSIBLE DIVISION: Mobile Source Control Division

STAFF REPORT: Yes

**06-8-5:**

**Public Hearing to Adopt California's Heavy-Duty Diesel In-Use Compliance Regulation**

SUMMARY OF AGENDA ITEM:

Staff recommended that the Board amend California's heavy-duty diesel engine (HDDE) regulations and test procedures to create a new HDDE in-use compliance program conducted by engine manufacturers. The proposed amendments would ensure that vehicles meet the applicable certification emission limits over their regulatory useful life.

The proposed program would start in 2007 for gaseous emissions and 2008 for particulate matter emissions. Under the proposed amendments, each year, ARB and the United States Environmental Protection Agency would jointly designate up to 25 percent of a manufacturer's total number of eligible HDDE families for testing. Manufacturers would screen, procure and test vehicles that use the designated engines. The testing is based on the Not-to-Exceed (NTE) requirements which is required for 2005 and later model year engines. The NTE test procedure allows testing to be conducted on the road by using portable emission measurement systems. In order to become familiarized with using these systems to test HDDEs, a pilot program with the engine manufacturers was initiated in 2005 and will continue until the start of the enforceable compliance program. The proposed amendments are essentially identical to the federal program.

At the hearing, the staff also recommended an additional change to the test procedures to include labeling requirement flexibilities for diesel engines.

**ORAL TESTIMONY:**

Chung Liu, South Coast Air Quality Management District  
Lisa Stegink, Engine Manufacturers Association

**FORMAL BOARD ACTION:**

The Board unanimously adopted Resolution 06-27, in which it approved the staff's proposal with the modification presented at the hearing. The change from staff's initial published proposal will be made available for an additional 15-day comment period.

**RESPONSIBLE DIVISION:** Mobile Source Control Division

**STAFF REPORT:** Yes