

# Program

## CRC MOBILE SOURCE AIR TOXICS WORKSHOP

CARB and The Citizen Hotel  
Sacramento, CA  
November 30 - December 2, 2010

CO-SPONSORED BY CARB, EPA, NREL, SCAQMD



### WORKSHOP ORGANIZERS

Steve Japar, Co-Chairperson	Consultant
Rory MacArthur, Co-Chairperson	Chevron Energy Technology Company
Chad Bailey	US Environmental Protection Agency
Richard Baldauf	US Environmental Protection Agency
Kevin Black	Federal Highway Administration
Rich Cook	US Environmental Protection Agency
Bart Croes	California Air Resources Board
Howard Feldman	API
Phil Heirigs	Chevron Global Downstream LLC
Kent Hoekman	Desert Research Institute
Tao Huai	California Air Resources Board
Debra Kaden	ENVIRON
Douglas Lawson	National Renewable Energy Laboratory
Deborah Luecken	US Environmental Protection Agency
Jean Ospital	South Coast Air Quality Management District
Joe Somers	US Environmental Protection Agency



## Tuesday, November 30, 2010

The Citizen Hotel

6:00 - 7:00 PM **Welcome Reception and Registration at The Citizen Hotel - Metropolitan Terrace**  
*Cocktails and Hors d'Oeuvres*

## Wednesday, December 01, 2010

Klamath Training Room at ARB (2nd Floor, 1001 I Street)

7:00 - 8:00 AM **Registration**  
*Continental Breakfast in Coastal Hearing Room at ARB*

8:00 AM *Welcome: Steve Japar (Consultant) and Rory Macarthur (Chevron)*

8:05 AM **Plenary Session**  
*Chairpersons: Rory Macarthur (Chevron) and Kent Hoekman (Desert Research Institute)*

8:10 AM	<b>Welcome and Opening Comments</b>	Tom Cackette	California Air Resources Board
8:30 AM	<b>Comparative Composition and Lung Toxicity of Exhaust from Engines Fueled by Diesel, Gasoline and Compressed Natural Gas</b>	Joe Mauderly	LRRRI
8:50 AM	<b>Impact of Emerging Technologies</b>	Robert Sawyer	University of California, Berkeley
9:10 AM	<b>Air Quality Model Development for Regulatory Needs</b>	Ken Schere	US EPA
9:30 AM	<b>A Model for Reducing Transportation Emissions</b>	Dan Sperling	University of California, Davis
9:50 AM	General Discussion		

10:00 - 10:30 AM **BREAK and Poster Viewing in Coastal Hearing Room at ARB**

**Session 1 Needs of Regulators**  
*Impacts of new and potential rules and regulations (e.g., low-carbon fuel standards, renewable fuels regulations, MSAT2 rules, FHWA highway issues) on MSATs*

10:30 AM *Chairpersons: Mike Claggett (Federal Highway Administration) and Erik White (California Air Resources Board)*

10:35 AM	<b>Mobile Source Air Toxics: Microscale to Global</b>	Chad Bailey	US EPA
10:50 AM	<b>Mobile Source Emissions, Proximity to Sources, and Future Emissions Control Policies</b>	Todd Sax	California Air Resources Board
11:05 AM	<b>FHWA Mobile Source Air Toxics Interim Guidance</b>	Victoria Martinez	FHWA
11:20 AM	<b>Aircraft Lead Emissions Modeling and Monitoring Study</b>	Ed Carr	ICF International
11:35 AM	General Discussion		

**Session 2 Air Quality and Exposure Measurements of MSATs**  
*What are the MSAT exposures On-Road and Near-Road, associated with proximity to traffic?*

11:45 AM *Chairpersons: Richard Baldauf (US EPA) and Debra Kaden (ENVIRON)*

11:50 AM	<b>Near-Roadway Air Quality: Findings from Real-World Data</b>	Doug Eisinger	Sonoma Technology
12:05 AM	<b>West Oakland Monitoring Study</b>	David Campbell	Desert Research Institute

12:20 PM - 1:50 PM **LUNCH at The Citizen Hotel - Metropolitan Terrace**

1:50 PM	<b>FHWA/EPA Near-Road Study in Las Vegas</b>	Richard Baldauf	US EPA
2:05 PM	<b>Effect of Proximity to a Freeway with Heavy-Duty Diesel Traffic on the Ambient Concentrations of Criteria and Air Toxic Pollutants</b>	Andrea Polidori	South Coast AQMD
2:20 PM	<b>Spatial Distribution of Polycyclic Aromatic Hydrocarbons in Pine Needles</b>	Elizabeth Noth	University of California, Berkeley

2:35 PM	<b>Land Use Regression for Daily Individual Exposure Assessment to PAHs for Epidemiological Study of Asthma</b>	Elizabeth Noth	University of California, Berkeley
2:50 PM	<b>Changes in MSATs at Near-Roadway Schools After the Expansion of US 95 in Las Vegas, NV</b>	Paul Roberts	Sonoma Technology
3:05 PM	<b>Indoor/Outdoor Measurements of Traffic-Related Air Pollutants at Four Elementary Schools in El Paso, Texas</b>	Wen-Whai Li	University of Texas at El Paso
3:20 PM	General Discussion		

**3:30 - 4:00 PM BREAK and Poster Viewing in Coastal Hearing Room at ARB**

**Session 3 Air Quality and Exposure Modeling of MSATs**  
*Modeling of MSAT concentrations/exposures from the regional level down to "hot spots" and microenvironments; advances in approaches to modeling of MSATs*  
 4:00 PM *Chairpersons: Deborah Luecken (US EPA) and Howard Feldman (API)*

4:05 PM	<b>Air Pollution and Exposure Research Information Infrastructure</b>	Birmur Guven	Houston Advanced Research Center
4:20 PM	<b>Modeling Concentrations Of Traffic-Related Air Pollutants: Recent Policy And Science</b>	Chad Bailey	US EPA
4:35 PM	<b>Modeling Transport and Transformation of Multiple Air Pollutants Near roadways Using CFD-VIT-RIT</b>	K. Max Zhang	Cornell University
4:50 PM	<b>Effects of Fuel Additives Containing Nano-Scale Cerium On Diesel PM Emissions: Modeling Impacts Near Roadways</b>	Garnet B. Erdakos	US EPA
5:05 PM	<b>Air Quality Impacts of Increased Use of Ethanol under the United States' Energy Independence and Security Act</b>	Richard Cook	US EPA
5:20 PM	<b>2005 National Air Toxic Assessment (NATA) - Mobile Source Overview</b>	Ted Palma	US EPA
5:35 PM	General Discussion		
5:45 PM	End of Technical Sessions		

**6:45 PM Reception at The Citizen Hotel - Metropolitan Terrace**

**7:30 PM Dinner at The Citizen Hotel - Metropolitan Terrace**

# Thursday, December 02, 2010

Klamath Training Room at ARB (2nd Floor, 1001 I Street)

7:00 - 8:00 AM **Registration**  
Continental Breakfast in Coastal Hearing Room at ARB

## Session 4 Vehicle Emissions and Vehicle Emissions Modeling

*Light- and heavy-duty vehicle MSAT emissions during off-cycle operation, and under very cold temperature; MSAT emissions from alternative fuels and ethanol; the relative importance of evaporative and tailpipe emissions*

8:00 AM *Chairpersons: Chad Bailey (US EPA), Tao Huai (California Air Resources Board), and Phil Heirigs (Chevron)*

8:05 AM	<b>Impact of Biodiesel on Aldehyde Emissions</b>	Kent Hoekman	Desert Research Institute
8:20 AM	<b>Status of the Advanced Collaborative Emissions Study (ACES)</b>	Christopher Tennant	CRC
8:35 AM	<b>Comparison of New and Old Diesel Engine Emissions</b>	Barbara Zielinska	Desert Research Institute
8:50 AM	<b>A Study of Emissions from a Euro 4 Light Duty Diesel Vehicle with the European Particulate Measurement Program with and without Regeneration</b>	Alberto Ayala	California Air Resources Board
9:05 AM	<b>Role of Fuel and Lubricant Oil on Particulate Matter and Semivolatile Organic Compound Emissions from Normal- and High-Emitting Light-Duty Vehicles</b>	Eric Fujita	Desert Research Institute
9:20 AM	<b>Impact of Vehicle Operating Modes on Emissions; PM-Speciated Profiles under Differing Operating Modes</b>	Jason Herrington	US EPA
9:35 AM	<b>Particulate Emissions and Size Distributions for California LEV II Certified gasoline Direct Injection Vehicles</b>	Sherry Zhang	California Air Resources Board

## 9:50 AM - 10:20 AM BREAK and Poster Viewing in Coastal Hearing Room at ARB

10:20 AM	<b>Effects of Temperature and Driving Cycle On Exhaust Emissions From Tier 2 Vehicles Operating On Ethanol Fuel Blends</b>	Kevin Whitney	Southwest Research Institute
10:35 AM	<b>Effect of Ethanol/Gasoline Blends on Exhaust Emissions from Light-Duty Vehicles: Initial Air Toxics Results from the EPACT/V2/E-89 Program</b>	Aron Butler	US EPA
10:50 AM	<b>Modeling Air Toxics in EPA's MOVES Emissions Model</b>	Rich Cook	US EPA
11:05 AM	General Discussion		

## Session 5 Uncertainties/Accountability

*How does the measured impact of air quality regulations compare to their predicted impact? What uncertainties (emissions, meteorology, modeling) affect this comparison?*

11:15 AM *Chairpersons: Doug Lawson (NREL) and Steve Japar (Consultant)*

11:20 AM	<b>Mobile Source Pollution and Accountability</b>	Douglas Lawson	National Renewable Energy Laboratory
11:35 AM	<b>Exhaust Particulate Matter and Nitrogen Oxide Emissions from Individual Heavy-Duty Trucks at the Port of Oakland</b>	Robert Harley	University of California-Berkeley

## 11:50 AM - 1:20 PM LUNCH at The Citizen Hotel - Metropolitan Terrace

1:20 PM	<b>Retrospective Analysis of Photochemical Modeling Results</b>	Michael Koerber	Lake Michigan Air Directors Consortium
1:35 PM	<b>Changes in Near-Road Exposures Attributed to Local/State Regulations and Economic Impacts</b>	Kathleen Kozawa	California Air Resources Board

## Session 5a: Mini-Session on Acrolein and HAPs

1:50 PM	<b>What Air Quality Models Tell Us About Sources and Distributions of Atmospheric Acrolein</b>	Deborah Luecken	US EPA
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