## FEDERAL ADVISORY COMMITTEE ACT CLEAN AIR ACT ADVISORY COMMITTEE

## MOBILE SOURCES TECHNICAL REVIEW SUBCOMMITTEE

CO-CHAIRS: MICHAEL WALSH AND ROBERT SAWYER

DESIGNATED FEDERAL OFFICIAL: GREGORY GREEN

Minutes of the Subcommittee's Meeting on April 18, 2001 Arlington, Virginia **DRAFT** 

### **Introductions and Opening Remarks**

Michael Walsh (consultant) called the meeting to order at 9:00 a.m. and welcomed the attendees. The minutes from the January 17<sup>th</sup> meeting were approved as written. Chris Grundler (EPA) introduced the new members of the Subcommittee: Ron Benton (Equiva Services L.L.C., Shell Oil/Texaco), Andrew Ginsburg (OR Department of Environmental Quality), Reginald Modlin (DaimlerChrysler), Bob Schaefer (Global Fuels Technology, BP Amoco), Steven Suttle (Corning), and Alan Weverstad (General Motors).

# Presentations on Mobile Source Research and Development Programs in the Federal Government

- Timothy Klein (DOT) gave the presentation "Overview of Advanced Technology Programs."
  He described the DOT's programs, the Center for Climate Change and Environmental
  Forecasting, the environmental provisions in the Transportation Equity Act for the 21<sup>st</sup>
  Century (TEA-21), University Transportation Centers, and research within the Federal
  Transit Administration, Federal Railroad Administration, Federal Highway Administration,
  and Federal Aviation Administration.
- Shang Hsiung (DOT) gave the presentation "Advanced Vehicle Technology Program." This program, funded under TEA-21, established seven regional consortia that focus on electric and hybrid electric technologies for medium- and heavy-duty vehicles. The consortia comprise private businesses, academic institutions, and federal agencies, including DOT, the Departments of Defense, Energy, Commerce, Interior, and EPA. Their goals are: to improve safety, mobility, fuel efficiency; to reduce vehicle emissions; to assist in the development of a globally competitive U.S. advanced transportation industry; and to promote public acceptance of advanced transportation technologies.
- Mr. Hsiung also gave the presentation "Hybrid Electric Vehicle Projects." In response to
  Congressional direction, the Federal Transit Administration (FTA) administers programs on
  clean fuels and technologies for buses and trains. He gave information on the New York
  hybrid bus, the FTA low-speed mag-lev program, new bus technology, and other advanced
  technologies.
- Arrigo Mongini (FRA) and Steve Sill (FRA) gave a presentation on mag-lev and high speed train programs. They summarized FRA's railroad development programs for next generation high-speed rail technology, mag-lev, and advanced locomotive propulsion systems. They

provided comparisons of automobile, plane, and train emissions, and truck and train energy consumption.

- John Halkias (DOT) gave the presentation "Intelligent Transportation Systems (ITS) Programs." ITS systems combine information and communication technologies to manage surface transportation networks, improve operational efficiency and safety, and reduce congestion. Metropolitan ITS strategies include: the management of freeways, arteries, incidents, transit, and emergencies; traveler information; electronic toll collection; railroad grade crossings; and electronic payment.
- Dr. Cary Gravatt (U.S. Dept. of Commerce) gave the presentation "Partnership for a New Generation of Vehicles." The Partnership includes representatives from the government, the U.S. Council for Automotive Research, suppliers, universities, laboratories, and other organizations. The Partnership's goals include improving national competitiveness in manufacturing, implementing commercially viable innovations from ongoing research on conventional vehicles, and developing a new class of efficient, environmentally-friendly vehicles. Dr. Gravatt provided information on the Partnership's technical portfolio, the challenges it faces, and its progress to date.
- David Rodgers (DOE) gave the presentation "Putting Advanced Transportation Technologies to Work for Clean Air and Energy Security." Mr. Rodgers explained the need for alternative fuels, the demand for fuel by the transportation sector, and the transportation sector's share of emissions. He gave an overview of alternative transportation fuels and alternative fuel vehicles. He also summarized the DOE deployment programs for these technologies, including the Clean Cities Program, testing and evaluation, Energy Policy Act replacement fuels, and advanced vehicle competitions.
- Chuck Mann (EPA) gave the presentation "Overview on Mobile Source Research and Modeling Efforts," in which he described the activities of the National Risk Management Research Laboratory (NRMRL) in Research Triangle Park, NC. The goals of NRMRL are to develop better "real world" estimates of highway vehicle emissions, quantify the relationship between emissions and vehicle activity, and develop research model capability for assessing emissions control and policy issues. He gave an update on the Mobile Emissions Assessment System for Urban and Regional Evaluation, light-duty vehicle estimates, global climate change technology assessments, and the Environmental Technology Verification program.
- Bruce Harris (EPA) gave the presentation "Heavy-Duty Diesel On-Road Emission Factor Research." Mr. Harris described the prototype and full-scale facilities developed at NRMRL for conducting modal, on-road tests of heavy-duty vehicles. He described and presented findings from the particulate matter tests that have been conducted.

### Proposal to Reactivate the Emissions Test Laboratory Upgrade Workgroup

Mike Sabourin (EPA) gave the presentation "Re-Chartering the Emissions Test Laboratory Upgrade Workgroup" and proposed reactivating the Workgroup. The Workgroup, originally

chartered in July 1997, examined upgrading the National Vehicle and Fuel Emissions Laboratory (NVFEL) in Ann Arbor, MI; it issued a final report in July 1998. The services NVFEL provides include confirming mobile source compliance, acting as a national reference for mobile source emissions testing, and providing scientifically robust evaluation and research data for regulatory support. Mr. Sabourin updated the Subcommittee on progress NVFEL has made on very-low emission vehicle compliance testing; multi-fuel testing capability; the fuels, chemistry, and standards labs; heavy duty emissions testing capability; and technical staff development.

Mr. Sabourin recommended re-chartering the Workgroup to conduct a biannual review of the NVFEL's progress, review the upgrade plan beyond 2001, and produce a report with recommendations to guide the next two years. He submitted a draft charter and described the Workgroup's schedule. The Workgroup would meet this spring and summer, complete its work by October 2001, and then deliver its report to the Subcommittee.

Christine Vujovich (Cummins) said that the work done at NVFEL is a success because it has helped increase collective understanding of the direction that needs to be taken with the future requirements. She recommended that the Subcommittee allow the workgroup to go forward. As there were no objections, Mr. Walsh told the Workgroup to proceed with its plans.

#### **Update on the Activities of the On-Board Diagnostics Workgroup**

Dr. Jerry Gallagher (J. Gallagher & Associates), co-chair of the On-Board Diagnostics (OBD) Workgroup, described the recommendations pertaining to a long-term testing program of OBD-equipped vehicles that the Workgroup will discuss during its April 19<sup>th</sup> meeting. The Workgroup will determine whether to recommend a long-term, direct emission and OBD system test program that would be operated jointly by EPA and one or more states.

#### Wrap-up

Dr. Robert Sawyer (UC Berkeley) announced that Margo Oge (EPA) asked the Subcommittee to meet three times a year instead of four to help conserve EPA's resources. Dr. Sawyer and Mr. Walsh recommended that the change begin after the scheduled July and October 2001 meetings. Mr. Green said that the change was acceptable to EPA. The Subcommittee's members did not object.

The next meeting of the MSTRS is scheduled for July 18, 2001 in Alexandria, VA. Mr. Green recommended that all the Workgroups give updates to the Subcommittee at that time. Dr. Sawyer recommended that everyone read EPA's draft report "EPA's New Generation Mobile Source Emissions Model - Initial Proposal and Issues," which the Modeling Workgroup is discussing. The Workgroup would like feedback by the July meeting so it can be incorporated in the final report. Mr. Walsh and Dr. Sawyer proposed that the broad topics for the remaining meetings in 2001 include climate change, fuel economy, carbon dioxide (CO<sub>2</sub>), and the Administration's energy plan. The meeting was adjourned at 3:00 p.m.

### Attachments:

List of attendees (members, alternates, speakers, and staff) List of observers

### Attendees (Members, Alternates, Speakers, and Staff)

#### NAME ORGANIZATION

Kelly Brown Ford Motor Company

Coralie Cooper NESCAUM

Gerald Gallagher J. Gallagher & Associates

Edward Gardetto U.S. Environmental Protection Agency
Andrew Ginsburg OR Department of Environmental Quality

Cary Gravatt U.S. Department of Commerce

Gregory Green U.S. Environmental Protection Agency Christopher Grundler U.S. Environmental Protection Agency

Randall Guensler Georgia Institute of Technology

Bruce Harris

U.S. Environmental Protection Agency
John Halkias

Federal Highway Administration, DOT
Cheryl Hogan

U.S. Environmental Protection Agency
Shang Hsiung
Federal Transit Administration, DOT
John Johnson

Michigan Technological University

Timothy Johnson Corning, Inc.
Don K. for Timothy Tindall Detroit Diesel

Timothy Klein Research & Special Programs, DOT

Dale Kordos for John Cabaniss Association of International Auto Manufacturer

Chuck Mann U.S. Environmental Protection Agency

Dale McKinnon Manufacturers of Emissions Controls Association

Reginald Modlin DaimlerChrysler

Arrigo Mongini Federal Railroad Administration, DOT

Brian J. Morton EC/R, Inc. (EPA Contractor)

Joseph Norbeck University of California at Riverside Paul Rasmussen U.S. Environmental Protection Agency

David Rodgers
U.S. Department of Energy
Joanne Rotondi for Patrick Raher
Hogan & Hartson, L.L.P.

Mike Sabourin

Robert Sawyer

Bob Schaefer

Steve Sill

U.S. Environmental Protection Agency
University of California at Berkeley
Global Fuels Technology, BP Amoco
Federal Railroad Administration, DOT

Christine Vujovich Cummins Engine Company

Michael Walsh Consultant

Stephanie Walsh EC/R, Inc. (EPA Contractor)
Alan Weverstad General Motors Corporation

#### Observers

### NAME ORGANIZATION

Rick Barrett CO Department of Health and the Environment

Harry Diegel Ford Motor Company

Roger Fairchild Consultant Chuck Freed Consultant

Douglas Greenhas National Automobile Dealers Association
Doug Lawson National Renewable Energy Laboratory

Richard Moskowitz American Trucking Associations
Michelle Redlin Hart/IRI Fuels Information Services

J.J. Smith Inside Washington

Andy Vaichekauskas Mitsubishi Research & Development of America

John Wislocki Transport Topics