

FEDERAL ADVISORY COMMITTEE ACT  
CLEAN AIR ACT ADVISORY COMMITTEE  
**MOBILE SOURCES TECHNICAL REVIEW SUBCOMMITTEE**

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CO-CHAIRS: MICHAEL WALSH AND ROBERT SAWYER

DESIGNATED FEDERAL OFFICIAL: PHILIP LORANG

*Draft Minutes from the Quarterly Meeting of April 14, 1999*  
*Holiday Inn - Eisenhower; Alexandria, VA*

**Introductions and Opening Remarks**

Dr. Robert Sawyer and Michael Walsh, Mobile Source Technical Review Subcommittee (MSTRS) co-chairs, opened the meeting and welcomed the attendees. Participants and members introduced themselves. A list of members and non-members attending the meeting is attached at the end of this document.

**Announcements**

John White was unable to attend the meeting, but sent a list of announcements on the final agenda. Among those announcements:

- EPA's appropriation includes a \$1 million line-item for the CE-CERT laboratory. The money will be granted to UC Riverside in increments. The first project will involve testing of light heavy-duty vehicles (diesel and gasoline).
- The Heavy-Duty Vehicle Testing Workgroup is on hold for now. EPA is currently very busy, largely due to the settlement on heavy-duty engines. The settlement includes a large in-use testing component which will provide this subcommittee with valuable information. The workgroup may be formed later.
- The Blue Ribbon Panel on MTBE is separate from this subcommittee, an entity under the CAAAC (see [www.epa.gov/oms/consumer/fuels/oxygenated/blueribb.htm](http://www.epa.gov/oms/consumer/fuels/oxygenated/blueribb.htm)).
- OMS has a service which provides updates and news on their website. Directions for subscribing to the service are included in member and interested parties packets.
- Members who would like to post to the MSTRS website should send materials to Professor Randall Guensler ([randall.guensler@ce.gatech.edu](mailto:randall.guensler@ce.gatech.edu)) or John White ([white.johnt@epa.gov](mailto:white.johnt@epa.gov)).
- A handout on the Diesel Emission Control Sulfur Effects Program (DOE's DECSEP) is included in the packet. DECSEP is a cooperative program between industry and DOE to study the effects of sulfur in diesel fuel on advanced after-treatment technologies.

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- The Toxics Workgroup had its first meeting and welcomes interested persons who want to participate in the future.

### **Membership Changes**

- Invitations to join the MSTRS have been sent to additional people, including an oil company representative.
- **Blake Early** from the American Lung Association is now an official member.
- **Robert King** from the Sun Company will join the subcommittee.
- **Alan Lloyd**, formerly of the Desert Research Institute, will leave the subcommittee because he has become Chair of the California Air Resources Board. CARB is already represented on the MSTRS by Thomas Cackette.

### **Approval of Minutes**

The minutes from the January 13, 1999 meeting were accepted with one modification: on page 3, the text discussing new standards should be changed from 2.5 gm PM to 2.5 gm NO<sub>x</sub> + HC. The minutes from the February 25, 1999 conference call will be discussed informally during the report from the Innovative and Incentive-Based Policies Workgroup.

### **Update on the Clean Air Act Advisory Committee (CAAAC) - Paul Rasmussen, EPA**

The CAAAC will have a meeting on April 26 and 27 in Portland, Oregon. The meeting, hosted by Greg Greene of the Oregon Department of Environmental Quality, will include a tour of Portland to look at initiatives related to "Smart Growth." A key topic to be discussed will be the committee's new awards program. The awards will be made annually under a number of different categories for recognition of activities that support clean air. The awards will be by self-nominated and evaluated by OAR staff. The three currently proposed categories are: 1) Community Development and Transportation Improvements, 2) Innovations in Technology, and 3) Innovations in Guidelines or Programs. The committee will seek approval in Portland to get the program started as soon as possible. Mr. Rasmussen added that development of a website for the CAAAC is in progress.

The summer committee meetings will be on July 26 and 27 in Washington DC. These dates are timed for the completion of the Blue Ribbon Panel on MTBE.

At this time, the CAAAC has about 60 members. Renewals and new appointments are in progress.

### **Report from the Incentives Workgroup - Bruce Bertelsen, MECA**

The Innovative and Incentives-Based Policies Workgroup began in July 1997 as an outgrowth of the In-Use Deterioration Workgroup. Workgroup recommendations are the product of nearly two years of research and discussion, where the objective was to look at innovative and incentive-based approaches to reduce emissions. The workgroup defined incentives broadly, looking at potential policy changes beyond simple economic incentives. The workgroup focused on Inspection and Maintenance (I/M) programs, emission information, and on-board diagnostics.

Based on the comments received by the subcommittee, the workgroup report was revised. Specifically, the executive summary was changed to better describe the motivations behind the efforts and recommendations of the workgroup. In addition, recommendations 1., 2., and 4. were clarified. A general description of the three recommendations follows:

1. Redesign an I/M component of MOBILE model to more accurately reflect real-world performance of program (e.g., repair rate and noncompliance assumptions), and provide guidance to states on developing compliance and other estimates for assumed values in the model;
2. Require all states to perform "ex post facto" evaluations of their programs (enhanced I/M program states are already required to do this); and
4. Develop OBD systems as an eventual replacement to I/M.

The report also contains several other recommendations. The revised report was distributed to participants and Mr. Bertelsen outlined each of the eight recommendations for the subcommittee.

### **Discussion**

Samuel Leonard of General Motors asked about the value of adding an emissions index on new car labels, given that every vehicle now sold has fuel economy and certification level labeling. Mr. Bertelsen responded that the recommendation is to develop a comparison between all light-duty (less than 8,500 lbs. vehicle weight) vehicles, creating an index that can be easily understood by the public. Mr. Leonard asked if the scale would include both a sports utility vehicle (SUV) and a compact car, even though the SUV is capable of doing more work than the compact car. The response was that all light-duty vehicles will probably be included in one ranking system at some point in the future.

Discussion followed regarding vehicles that should be included in the ranking. There is still uncertainty about how the label and label categories will be designed. The workgroup suggests that EPA consider these issues as they develop a labeling program.

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William Becker of STAPPA/ALAPCO asked if the workgroup had considered what the resource needs for these recommendations might be for states. The workgroup did not conduct much analysis of anticipated resource needs, but the discussions leading to the recommendations included state representatives.

Patrick Raher of Hogan and Hartson asked why the recommendation on linking registration to recall was listed as a low priority. The workgroup was asked by the subcommittee to rank the recommendations into high-, medium-, and low-priority categories. The workgroup had difficulty making these priorities; the consensus was that all recommendations should be a priority for EPA, although the registration and recall effort could be considered less important than the others. One member suggested that prioritization of the recommendations should be removed. After discussion the subcommittee agreed..

John Hornback, Director of the Division for Air Quality of Kentucky, gave his perspective as a state representative. He recalled that states were encouraged to adopt I/M programs with the promise of state implementation plan (SIP) credits. Now he understands that those credits are overestimates and that EPA may reduce the amount of credits states can claim from having I/M programs. This may cause political problems and complications with long-term testing contracts.

Dr. Joseph Norbeck of the University of California- Riverside said that surveillance is expensive, and that those costs are likely to fall on the states. Second, training is required to improve the effectiveness of repairs, adding time and cost to the programs.

Mr. Raher said that funding needs are a large consideration of the CAAAC. The workgroup should state that the funding needs for these recommendations have not been explicitly addressed. Mr. Becker suggested that the report be amended to suggest that EPA look into government funding sources to implement these recommendations. It was decided to make that suggestion in the cover letter accompanying the report.

Thomas Cackette of the California Air Resources Board suggested that technical training is a lucrative area for incentive-based programs. He asked if the workgroup had looked at the Gold Shield program. The workgroup did include a discussion of Gold Shield on page 19 of the report.

Mr. Walsh summarized the next steps for the Innovative and Incentive-Based Workgroup:

1. The MSTRS accepts the recommendations of the Innovative and Incentive-Based Workgroup;
2. The report will be amended, omitting the prioritization of recommendations;

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3. The cover letter submitting the report will include a note on searching for funding sources; and
4. The report will be submitted to the CAAAC in July.

EPA will arrange a presentation at the July meeting about technician training. Other innovative or incentive-based programs or policies that members would like to have researched should be brought to the attention of the full subcommittee. The subcommittee may ask the workgroup to continue its work, or it may decide to appoint a new group to investigate any new issues.

**Report from the Phase II Reformulated Gasoline (RFG) Implementation Workgroup - Deborah Wood, EPA**

Fleet Testing: Ms. Wood reported that the fleet testing report on Phase II RFG has been finalized. A copy of the report is included in the packet for this meeting. The purpose of the testing program was to determine if there would be any vehicle performance problems with Phase II RFG. Testing took place in three cities: Boston (police department); Elk Grove Village, IL (municipal fleet), and Houston (Houston Light and Power Company). Four fuel formulations were used, two winter and two summer. The test fleet included 374 vehicles (202 test vehicles and 172 control vehicles). No performance problems attributed to RFG were found. Further testing was conducted on small engines, marine engines, and motorcycles.

The conclusions from testing were as follows: 1) no differences were found in fuel economy or performance between Phase I RFG and Phase II RFG; and 2) no differences were identified in performance for small, marine, or motorcycle engines.

Communication: The workgroup's public relations consultant suggested that EPA place a news story in Milwaukee in May to announce the improved air quality that has resulted from the use of Phase I RFG. The story would include discussion of the coming of Phase II RFG. Due to the volatility of the Milwaukee situation, EPA decided to place the story in Chicago. MTBE (water pollution concerns) and the quantity of ethanol used in Phase II fuels (corn grower economic concerns) are issues expected to be raised in Chicago.

The Phase II Program will start in September. EPA would like to get the word out prior to the initiation of the program.

Discussion

Mr. Becker commented that the workgroup's effort should be publicized; seldom in public policy do regulators and the regulated industry work together as they have on the RFG workgroup. However, rather than being so focused on the success of Phase I RFG, he

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recommended that Phase II RFG be the center of the story. Mr. Becker recognizes that the timing is uncomfortable--MTBE is going to be a big issue in May. STAPPA's recommendation is to hold off on the story until late June in the Midwest and July in the Northeast.

Blake Early of the American Lung Association commented that it is not known what to say at this point about MTBE. He questioned why we would allow ourselves to be set up to give unclear answers to the public. MTBE issues are likely to surface at any meeting.

Mr. Hornback commented that credibility is an important issue and that we need to be sensitive to that and make sure the message remains credible during the process. EPA should plan to use doctors and others who are perceived as more credible to help deliver the message.

Dennis Koepke of the State of Wisconsin stated that they have held focus groups on RFG, and recommended getting the word out on Phase II RFG sooner rather than later.

Next steps: Continue working on the Chicago story, begin developing educational materials, and develop training for state and local officials to respond to the public. A small steering committee will work on the educational materials and training.

### **Environmental Justice - Eileen Gauna, Southwestern University School of Law**

Professor Gauna spoke on the topic of environmental justice and how it relates to the work of the MSTRS and the CAAAC. She began with a background and history of environmental justice during the 1980s and 1990s, beginning with 1982 demonstrations in Warren County, New Mexico, through proposed interim guidance on Title VI complaints in 1998. The areas in which environmental justice issues arise have progressed from facility siting, compliance, and cleanup to standard setting and program design. In these latter areas, environmental justice concerns need to be considered in the earliest stages of regulatory activities, particularly during the formation of policy and the design of innovative programs.

Professor Gauna discussed potential sources of authority to address environmental justice in a regulatory context. For example, environmental statutes provide authority under "omnibus clauses" which are open-ended. Some environmental statutes also contain more specific provisions for addressing justice, such as the "non-attainment new source review social cost criteria." The 1994 Executive Order on Environmental Justice directs Federal agencies to consider environmental justice as part of their missions. Title VI of the Civil Rights Act prohibits discrimination in programs or activities that receive Federal financial assistance. Until recently, Title VI has not been applied in the environmental context. EPA has proposed interim guidance for investigating Title VI complaints and has established a Title VI Implementation Advisory Subcommittee charged with considering techniques that may be used by EPA funding recipients to operate programs that are in compliance.

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Professor Gauna presented the concerns of various stakeholders in the environmental justice arena. Regulators are generally concerned about legal authority, scope of legal duty, and increased program complexity. The regulated community is concerned about project delay, increased cost, reduced operational flexibility, and uncertainty. The environmental justice community is concerned about the ability to participate in the process with limited technical support and resources, monitoring and enforcement capacity, scope of adverse impacts, and the lack of real-world progress. Professor Gauna is a participant on the MSTRS because she believes it might be inefficient for a grass roots environmental justice activist to participate in the process as their resources are severely limited.

### Discussion

Dr. Sawyer stated that sometimes communities choose to accept environmental risks, recognizing that there are tradeoffs. Does environmental justice allow for this? Professor Gauna replied that one of the principles of environmental justice is that communities speak for themselves. If the community has the resources and opportunity to fully study and understand both the technical and the tradeoffs being proposed, then the siting decision process is likely to have the integrity necessary to make this tradeoff acceptable from an environmental justice point of view. Phil Lorang asked what the possible resolutions of a Title VI action might be. Professor Gauna replied that remedies at the administrative level could involve a loss of funding or in a court proceeding, if allowed, an injunction against the action if corrections are not made.

### **Report from the Air Toxics Workgroup - Jason Grumet, NESCAUM and Philip Lorang, EPA**

Mr. Grumet and Mr. Lorang are Co-Chairs of the newly formed Air Toxics Workgroup. The workgroup has been established to provide a forum for better understanding of, and for addressing, the issue of mobile source related air toxics. Two specific objectives envisioned for the workgroup are: 1) initiate a dialogue regarding Federal, state, and industry activities pertaining to motor vehicle related air toxics; and 2) review and assess the available technical tools and regulatory infrastructure and identify additional needs. The first workgroup meeting was held the day before the subcommittee meeting with participation of about 30 people. The workgroup began by identifying the risk assessment and regulatory initiatives underway. Federal initiatives include Section 202(l) Motor Vehicle Related Air Toxics Study and Rulemaking, Urban Air Toxics Strategy, Diesel Toxicity Assessment, and Cumulative Exposure Assessment (CEP). In addition, several states are reassessing their air toxics control programs in light of the results from recent ambient monitoring of mobile source related hazardous air pollutants.

The workgroup developed a list of issues to examine, which included the CEP, diesel risk study, the authorities for in-use control, monitoring concerns, lab issues, in-use toxics characterizations, other speciation lists, rulemaking schedules, control technologies, and state experiences. The workgroup discussed whether EPA is taking full advantage of the statutory

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authority provided by the Clean Air Act to control toxics. Mr. Lorang discussed EPA's approach to exposure assessment. The next workgroup meeting will be held sometime in June.

### **Discussion**

Margo Oge, Director, Office of Mobile Sources, EPA, asked how the workgroup sees their output interacting with the work EPA is undertaking, primarily within the timeframe EPA needs to take action on some of these issues. These issues also need to be addressed by EPA during rulemakings and other activities. Mr. Grumet responded that the workgroup has a steep learning curve and no one expects EPA to hold off on regulatory decisions pending workgroup input. However, there is an expectation that the workgroup will provide effective input that EPA might not otherwise receive. He added that upcoming Agency action on toxics issues is not likely to be the final action and that the workgroup can continue to provide input.

### **Update on the National Research Council's (NRC) Study of the MOBILE Model - John Holmes, NRC**

Mr. Holmes briefed the subcommittee on the NRC Committee project to review the MOBILE model. The planned scope is to evaluate MOBILE with respect to types of mobile sources addressed, strategies and methods for future data-gathering, alternative data sources and analytical techniques, the latest developments in related areas of modeling, incorporation of modal modeling in MOBILE7, and the overall accuracy of the current version. The committee has met in two open sessions. The first was December 17-18, 1998. Presentations were made by EPA, FHWA, the auto industry, the oil industry and others. The second meeting was held on March 4-5, 1999. EPA presented a status of MOBILE6 at that meeting. The committee also heard presentations about alternative modeling approaches from California and Germany as well as data gathering and validation efforts from Lawrence Berkeley National Laboratory, the Desert Research Institute, and the California I/M Review Committee.

The committee has asked to extend the report timeframe to late October so they can incorporate technical reports from the MOBILE6 effort. The final meeting will be in July. Mr. Holmes added that NRC will be starting another project to look at I/M programs. The Modeling Workgroup will resume activity soon and will consider the results of the NRC report.

### **Report from the On-Board Diagnostics (OBD) Workgroup - Edward Garetto, EPA**

Mr. Garetto, Workgroup Co-Chair, presented the status of the OBD Workgroup. EPA is conducting an OBD test program looking at FTP testing vs. OBD and IM240 testing on 1996 and newer vehicles. The goal is to test a manufacturer production-weighted sample of 200 vehicles by September 1999. The test results will aid EPA in development of SIP credits for OBD I/M testing, which will be required beginning January 1, 2001.

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Mr. Gardetto gave an update on the status of testing. Approximately 100 vehicles have been tested. Preliminary results show that OBD compares favorably to IM240 in that it actually finds and fixes more vehicles. But OBD can miss some problems that cause emission problems. Mr. Gardetto discussed an example of this. In Wisconsin test lanes, 38,292 1996 and newer vehicles were scanned from September 1998 to January 1999. Three areas have been investigated using these data: malfunctioning indicator light (MIL) rate, readiness status, and data link connection location. He presented information in each of these areas. The most common causes of MIL illumination are misfire, oxygen sensor, and evaporation problems. Readiness problems have dropped between 1996 and 1998 model years from about 6.5 percent of the fleet to less than two percent. The majority of "not ready" codes are for catalyst and evaporation monitors. The ability to find the data link connector in Wisconsin has improved since testing began. Initially, the connector could not be found in about 9 percent of the tested fleet. This is down to zero percent since October 1998. EPA is working on a data-link connector location data base for 1996 to 1999 model year vehicles to assist technicians in locating hard-to-find connectors.

EPA is developing OBD I/M implementation guidance based on FACA recommendations and the EPA pilot study in Wisconsin. A draft will be available for comments soon. SIP credit and readiness criteria issues may still be unresolved.

### **Wrap Up**

The next two meetings are scheduled for July 14 and October 13 in the Washington, DC area. Tentative agenda items for the next meetings are Tier 2 and in-use heavy-duty diesel issues. A suggestion was made that CE-CERT research with OEMs is at a point where the subcommittee can be updated. EPA will also make a presentation on the future composition of all mobile source emissions, given that the contribution of some mobile sources is changing. Other topics may be mechanic training and updates of RFG testing.

The meeting was adjourned.

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**Mobile Sources Technical Review Subcommittee**  
**List of Members or Member Alternates Attending**

Gordon Allardyce	DaimlerChrysler Corporation	(810) 576-8053
Bill Becker	STAPPA-ALAPCO	(202) 624-7864
Bruce Bertelsen	Manufacturers of Emissions Controls	(202) 296-4797
Kelly Brown	Ford Motor Company	(313) 322-0033
John Cabaniss	Assn. of International Automobile Mfrs.	(703) 525-7788
Tom Cackette	California ARB	(916) 322-2892
Greg Dana	Assn. of International Automobile Mfrs.	(703) 525-7788
Blake Early	American Lung Association	(202) 785-3355
John Elston	New Jersey Dept. of Env. Protection	(609) 292-6710
Jerry Gallagher	Colorado Dept. of Public Health	(303) 692-3128
Eileen Gauna	Southwestern Univ. School of Law	(213) 738-6752
Richard Gibbs	New York Dept. of Env. Conservation	(518) 485-8913
Jason Grumet	NESCAUM	(617) 367-8540
Randy Guensler	Georgia Institute of Technology	(404) 894-0405
John Hornback	Commonwealth of Kentucky	(502) 573-3382
John Johnson	Michigan Technological University	(906) 487-2576
Tim Johnson	Corning, Inc.	(607) 974-7184
John Kowalczyk	Oregon Dept. of Environmental Quality	(503) 229-6459
George Lauer	Desert Research Institute	(702) 895-0468
Sam Leonard	General Motors Corporation	(313) 556-7711
Phil Lorang	EPA Office of Mobile Sources	(734) 214-4374
Dave Merrion	Detroit Diesel Corporation	(313) 592-7276
Joe Norbeck	UC - Riverside	(909) 781-5791
Margo Oge	EPA-Office of Mobile Sources	(202) 260-7645
Roger Orteca	DaimlerChrysler Corporation	(248) 576-8066
Patrick Raher	Hogan & Hartson	(202) 637-5910
Bob Sawyer	UC-Berkeley	(510) 642-5573
Tina Vujovich	Cummins	(812) 377-3101

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**Mobile Sources Technical Review Subcommittee**  
**Attendance List - Interested Parties**

Fern Abrams	American Trucking Association	(703) 838-1910
Hazel Barbour	Texas Nat. Resources Conservation Comm.	(512) 239-1440
Bruce Carhart	Ozone Transport Commission	(202) 508-3840
Nick Economides	Oxygenated Fuels Association	(703) 841-7100
Susan Field	Toyota	(734) 995-2086
Chuck Freed	Consultant	(301) 572-5023
Glenn Giacobbe	Lyondell Chemical Company	(610) 359-5799
Tim Hogan	National Petrochemical & Refiners Assoc.	(202) 457-0480
John Holmes	National Academy of Sciences	(202) 334-2045
Stacy Klein	Mitsubishi	(703) 525-4800
Dennis Koepke	State of Wisconsin DNR	(608) 264-8868
Aki Nakamura	American Honda Motor Company	(202) 554-1650
Pat Phibbs	Business Publishers, Inc.	(301) 587-6300
Monsoor Rashid	Designers & Planners, Inc.	(703) 920-7070
Robert Redding, Jr.	Automotive Service Association	(202) 543-1440
Takanori Shiina	Honda R&D America	(248) 304-4886
Jeb Stuart	Construction Industry Air Quality Coalition	(714) 640-7760
William Watson	General Motors Corporation	(313) 556-7793