

Federal Advisory Committee Act
Clean Air Act Advisory Committee
Mobile Sources Technical Review Subcommittee

Co-Chairs: Michael Walsh and Suzanne Rudzinski

Designated Federal Official: Suzanne Rudzinski

Minutes of the Subcommittee's Meeting on March 9, 2005
Washington, D.C.

DRAFT April 12, 2005

Introduction and Opening Remarks

Mike Walsh (consultant, co-chair) and Suzanne Rudzinski (EPA, co-chair) called the meeting to order at 9:00 a.m. Subcommittee members introduced themselves. The October 4, 2004 meeting minutes were accepted, and participants were urged to sign in at the registration table.

Margo Oge (EPA) began the meeting by outlining the Office of Transportation and Air Quality (OTAQ) priorities:

1. Ms. Oge is looking forward to the 2007 implementation of the rule *Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements* (hereafter the On-Road Diesel Rule) as a key component of the National Clean Diesel Campaign (NCDC).
2. Implementation of the NCDC along with the Tier 2 Vehicle and Gasoline Sulfur Program and the Non-road diesel rule will prevent an estimated 25,000 premature deaths per year. Ms. Oge stated that a recent court ruling requires the agency to revisit the timing of the On-road Diesel Rule, and examine issues surrounding implementation more closely (e.g., emissions inventories, fuel issues, etc.).
3. Development of the locomotive and marine engine emission standards continues to be a priority. EPA has previously addressed fuels for these engines, but not the engines themselves. Participants should expect this regulation in 2006.
4. OTAQ has been working with vehicle manufacturers for the past year on revising the fuel economy label on vehicles. Ms. Oge hopes for a proposal on this project by the end of the year.
5. EPA is developing a program to encourage ports to use lower sulfur fuel. The focus here is on vessels that fuel up overseas with high sulfur bunker fuel. EPA is working with international agencies including the International Maritime Organization (IMO) in a process to reduce sulfur in bunker fuel. The process for this rulemaking will be similar to an internal rulemaking effort, including a proposal and cost-benefit analysis.
6. EPA is also working on a rulemaking for small marine engines below 50 horsepower (hp), and small lawn and garden engines. She expects the proposal by the end of 2005, and the rule in Spring 2006.
7. Retrofitting and replacing heavy-duty diesel engines continues to be a top priority of OTAQ. The agency would like to see all 11 million existing heavy-duty diesel engines replaced or retrofitted by 2014. EPA is addressing these existing engines in 5 categories (Freight, Ports, School Buses, Construction, and Agricultural Equipment). EPA

requested \$15 million for fiscal year (FY) 2006 to help fund this effort. A significant portion of these funds will be allocated to EPA Regions 9 and 10 as part of the West Coast Collaborative.^a EPA is working on identifying other pilot projects across the nation.

8. Ms. Oge discussed three significant efforts related to Climate Change and the transportation program. First, they are working with the administration to identify needed research, including emission inventories. Second, the program is focusing on voluntary efforts; for example, the SmartWay freight program is working with the American Trucking Association (ATA). There are over 120 partnerships have been formed within Smartway. There is an additional effort to identify 40-50 Fortune 500 companies that would be willing to work with EPA on the Best Work Place for Commuters. Third, the laboratory continues to work on the development of clean fuels and fuel-efficient technologies (e.g., hybrids). EPA is working with stakeholders like Ford, International Trucking, and UPS to develop clean diesel technologies and hydraulic hybrid vehicles.

Mr. Walsh asked about the regulatory process that will reduce sulfur in bunker fuels. Specifically will it be published in the Federal Register before it is finalized. Ms. Oge replied that the process is still being refined, and there will be opportunities for public comment. She expects the process to be complete in 2 years.

FACA Procedural Update for Mobile Source Technical Review Panel

Ms. Oge introduced Pat Childers (EPA) as the Designated Federal Official (DFO) to the Clean Air Act Advisory Committee (CAAAC), recently promoted from OTAQ to Jeff Holmstead's (Assistant Administrator of EPA) office. Mr. Childers presented information on plans to make the MSTRS more productive.

Mr. Childers provided background information on the Federal Advisory Committee Act (FACA) process. The CAAAC is the parent committee in this process, and is referred to as the "tier 1" committee. The CAAAC makes formal recommendations to EPA. The MSTRS is a "tier 2" Subcommittee under the CAAAC, and can only make recommendations to the CAAAC. The "tier 3" Workgroups established under the MSTRS can only make recommendations to the MSTRS. On October 9, 2004, EPA released a FACA Handbook that defines all of these processes.

The Office of General Council (OGC) determined that since Workgroups should not make formal recommendations to the CAAAC, the Workgroups should be temporary. Mr. Childers explained that he is presenting the same information to all the subcommittees established under the CAAAC.

Mr. Childers discussed CAAAC and Subcommittee membership. Membership should be limited to 6 years unless there is a special justification to stay longer. However, many stakeholder

^a The West Coast Collaborative is a public-private partnership working to reduce air pollution emissions from diesel sources along the West Coast. The Collaborative is part of an overall national campaign to reduce diesel emissions. Please visit <http://www.westcoastdiesel.org/> for more information.

representatives have been members since the Subcommittee's inception. He mentioned many changes that will take place in this process, including changes in EPA policy, a full turnover in membership in the next 2 years, elimination or ending of some Subcommittees and the formation of a new Subcommittee, and budget constraints. Both the Title V component of the New Source Review Subcommittee and the Radon Subcommittee are expected to close during 2005. The Air Quality Management Workgroup will become a full Subcommittee, chaired by Greg Green and fashioned after the MSTRS. However, there will be no new funds to support this Subcommittee.

Richard Gibbs (NY DEC) asked when the 6-year membership rule will affect the MSTRS. Deborah Wood (EPA) asked about balanced representation on the MSTRS. MSTRS membership is based on representation, not expertise. Representatives may need to serve longer than 6 years if new representatives cannot be found. Mr. Childers replied that the rule has already affected the CAAAC; there are 12 new members on the parent committee. Mr. Childers is examining tenure, attendance, the balance of representation, and the uniqueness of the member to determine who will remain a member.

Ms. Rudzinski discussed the effect of CAAAC changes on the MSTRS. The Subcommittee anticipates examining membership closely since many people have been on the membership roster for longer than 6 years. Some other representatives have resigned, so there is a need to fill their positions. She also mentioned revising the meeting schedule due to budget constraints; there will most likely be 2 meetings per year in conjunction with the CAAAC, and 1 additional meeting for the Retrofit Workgroup per year.

Ms. Rudzinski commented on future MSTRS meeting agendas. The agendas will focus more on discussion topics instead of just presentations, and will also include more breaks for networking purposes. There will be more effort to distribute agendas and reports beforehand in order to garner more interest in the meetings and receive more comments. There will also be more reports to the CAAAC from this Subcommittee. Ms. Rudzinski presented information at the last CAAAC meeting on recommendations from the MSTRS in response to the National Academy of Sciences (NAS) report *Air Quality Management in the United States*.

Ms. Rudzinski commented that the group seems to be moving more toward a balance between policy and technical issues. Some potential future topics could include inspection and maintenance programs (I/M) for heavy-duty diesel vehicles, regulation of aircraft, and fuel economy labeling.

Don Clay (Koch Industries) suggested adding fuel economy and global climate change to the list of topics. The world is changing, and it may be time to rethink the Workgroup structure or form new Workgroups.

Reg Modlin (DaimlerChrysler) commented that Ms. Oge has updated Subcommittee members in the last 3 meetings with EPA priorities. The members on this Subcommittee are action-oriented, but they have not been given any assignments. Momentum has been gathering in the Retrofit Workgroup, and he would like to see that in the Subcommittee. More discussion and decision-making items should be included on the agenda, if the agenda item is just for information, don't include it on the agenda. He would like to discuss fuel economy labeling in particular. He

commented on the lack of member attendance at the meetings. If members are asked for decisions on recommendations, they will show up for the meetings.

Mr. Walsh commented that there have been decision-oriented, time-limited Workgroups in the past, such as the National Vehicle and Fuel Emissions Lab (NVFEL) Upgrade Workgroup.

Mr. Gibbs has served on many of the MSTRS Workgroups, and they have been interesting, goal-oriented, and hard work. It seems this Subcommittee has become a “head-nodding” group for Workgroup reports. At the Subcommittee’s inception, there was a serious need to address air quality deterioration. He would like to know the next major assignment. He agreed that more advance scheduling is needed, especially regarding weighty issues that need discussion. He encouraged the diesel retrofit workgroups to allow time for their final discussion and to reach consensus on their recommendations. He also encouraged the Subcommittee not to schedule the final report from all 5 workgroups at the same time if the Subcommittee wants a full discussion.

Ms. Oge asked the MSTRS if they wanted Workgroups established to discuss fuel economy, green house gases and labeling, and voluntary measures. Mr. Modlin and Mr. Clay agreed that they would like these policy assignments with a technical discussion. EPA may be constrained by the Administration’s position on global climate change.

Mr. Clay suggested fuel additive issues as another topic for discussion. There is a mandate in the energy bill for more ethanol use in fuel. What will this mean as a supplement to the petroleum base. Transporting ethanol will be an issue. He encouraged the Subcommittee to look ahead and anticipate issues.

Ms. Oge agreed to evaluate the agenda for the Subcommittee. Participants should provide Ms. Rudzinski a list of discussion topics. Suggestions will be evaluated based on budget constraints and the rules of the FACA process.

Mr. Modlin suggested including 15 minutes in the agenda to introduce new topics, for example, expanded ethanol use in the Midwest. EPA does not seem to be concerned about this issue. The agenda can include 15 minutes for an introduction of a topic and then it could have an expanded slot on a future agenda. Kelly Brown (Ford) agreed, and added that there is a lack of representation on the Subcommittee from the small engine manufacturers industry. They would probably want to contribute to ethanol discussions.

Mr. Gibbs supports the new meeting schedule of two annual meetings. The remaining resources should be provided to the Workgroups.

Retrofit Workgoup Update

Gay MacGregor (EPA) provided an update on the efforts of the Retrofit Workgroup. The Workgroup began in April 2004 and will conclude in April 2006. They met on March 8, 2005 in four subgroups (Ports, SmartWay Freight, Construction, and Clean School Bus USA) in the morning and in a plenary session in the afternoon (the fifth sector, Agriculture, is just now underway). Ms. MacGregor mentioned the 2006 budget request of \$15 million for the entire

diesel retrofit effort, and an additional \$10 million for the school bus sector. If the funding request is granted, a large amount will be allocated to regional collaborative efforts like the West Coast Collaborative (see above discussion). While EPA is working on both regulatory and voluntary efforts, the workgroups are focusing on voluntary efforts. Ms. MacGregor commented that the Clean School Bus USA program will be putting additional effort into school bus replacements as well as engine retrofits and in the development of state advocates. Yesterdays meeting was well attended with approximately 80 attendees.

Updates were given from the subgroups. Michael Block (NESCAUM) presented an update from the Ports subgroup. A Ports sector workshop held in Corpus Christi, TX in January was quite successful and well attended. He commented that the National Association of Waterfront Employers presented information that less than 5 percent of port activity comes from large corporations like Wal-Mart. The majority of operations come from small businesses. Mr. Block added that homeland security issues are at the forefront of port activity as well, and will provide opportunities to upgrade facilities with an environmental focus. The Ports subgroup have been invited to present their efforts at the next meeting Port Authorities meeting in April where they will have an opportunity to interact with additional stakeholders.

Ms. MacGregor commented that the Agriculture sector was awarded a sensitive populations grant to retrofit or replace diesel-powered agricultural equipment in Southwestern Idaho.

The Construction subgroup focused on an incentives report produced by ICF that outlines monetary and non-monetary retrofit and replacement incentives for the Port and Construction sectors. Incentives include grants, tax incentives, contract specifications, and non-monetary/environmental stewardship programs. The Construction subgroup will also participate at the annual meeting the week of March 14, 2005 in conjunction with ConExpo, the largest national construction equipment expo. The subgroup is interested in coalition-building.

The Ports subgroup requests comments on the incentives report by March 31, and the Construction subgroup requests comments by April 6.

Mitch Greenberg (EPA) gave an update on the SmartWay Freight subgroup. The group is discussing ways to access Congestion Mitigation and Air Quality (CMAQ) funds.

Mr. Walsh thanked the Workgroup for their hard work. He asked how many retrofits have occurred. Jim Blubaugh replied that about 220-230 projects have been funded nationwide. His staff is developing a web-accessible database that will have all the projects' information. Ms. Oge commented that she hopes to have broad outreach to stakeholders through this effort.

Bob Schaefer (BP) commented that In a February 25, 2005 issue of World Fuels, there is a report on the sensitive population grants totaling \$1.6 million that funded 18 retrofit projects. He was astonished at the range of engines and applications involved. He asked if EPA will have a standardized approach for analyzing results of retrofit programs. Mr. Blubaugh replied that the clearinghouse he is developing will have standardized report forms to facilitate analysis of the data.

Mr. Gibbs commented that stakeholders are concerned about retrofit technology being available to retrofit the 11 million existing diesel engines as outlined in Ms. Oge's priorities. There are many different applications for these engines, and the technology to retrofit may not be available for some types of equipment. Mr. Block added that there are very few verified technologies available for retrofitting equipment used in ports and construction. He commented that one goal of the Corpus Christi Ports Workshop was to bring manufacturers and end-users together.

Merrylin Zaw-Mon (EPA) commented that EPA has collaborated with CARB in a Memorandum of Agreement (MOA) in order to streamline the verification process. She would like to encourage technology developers like the Manufacturers of Emissions Controls Association (MECA) to develop more retrofit technology. Mr. Blubaugh commented that a year ago, only 1 verified technology existed. The list is now up to 7, and he expects it to double in the next year.

Mr. Walsh discussed international successes in developing retrofit technology. EPA is working with Mexico, Thailand, and China in an effort to transfer technology and information.

Mr. Schaefer asked if the testing capabilities in NVFEL were sufficient to address after-treatment and other retrofit technology issues. Ms. Zaw-Mon replied that EPA has robust in-use testing capabilities, and is confident the lab has the capability to deal with these issues. EPA is also working with MECA on their testing capabilities.

Air Quality Management Workgroup Update

Don Clay provided an update on the Air Quality Management Workgroup (AQMW). Recently the Workgroup provided recommendations to the CAAAC. Mark McLeod (Environmental Defense) commented on the large effort all the stakeholders put into developing the recommendations. Stakeholders put forth the effort because they believed the recommendations will be effective and they cover a wide range of issues. Don Clay commended the MSTRS for their mobile source recommendations which were used as a template for the other AQMW recommendations.

Mr. Clay commented that there was an interest in the AQMW to redesign the Clean Air Act, and the Workgroup has become a formal Subcommittee to continue discussions on different ideas. Mr. McLeod commented that discussions were limited in the past due to Clear Skies negotiations and the CAIR rule. Now, stakeholders are freer to discuss all sectors. Mr. Clay concluded that part of future actions may focus on lifestyle choices, and have more of a focus on monitoring as opposed to modeling.

OBD Technical Workgroup Report

John Cabaniss (AIAM) presented the final report for the On-Board Diagnostic (OBD) Technical Workgroup. The Workgroup submitted a letter to the MSTRS on August 30, 2004. The letter covered recommendations for three areas of concern: 1) the OBD Readiness Policy, 2) OBD Tampering Issues, and 3) Draft Study Protocol on I/M Test Effectiveness. He addressed the concerns of each issue, reported research findings, and presented recommendations to the Subcommittee.

For the first issue, OBD Readiness, Mr. Cabaniss commented that research showed that some State inspectors would use the policy of allowing 2 monitors to read “not ready” during inspections as a loophole to circumvent testing and repairs. Some vehicle owners have learned to disconnect battery cables prior to inspections to exploit that policy.

For the second issue, Tampering, Mr. Cabaniss ran an internet search on the term “Oxygen sensor simulator” and got a large number of hits in less than one second. He said this proves the simulators are prevalent, but does not give an indication of how often or how many are being used for tampering purposes. The websites indicate that the devices are for off-road use only, but the Workgroup fears vehicle owners are using them to get around the OBD technology. The Office of Enforcement and Compliance Assistance (OECA) has been involved with gathering sales data from businesses to get an idea of how prevalent the devices are.

For the third issue, Draft Study Protocol, Mr. Cabaniss discussed funding options. The issue of whether OBD is more or less effective than other types of I&M is a mammoth undertaking so they limited their efforts to developing a study protocol. The program could cost several million dollars. He suggested collaborating with States and perhaps drawing from settlement funds to fund the recommended study.

Mr. Walsh commended the Workgroup’s effort and service. He recognized Jerry Gallagher as the former workgroup co-chair, who has recently retired. He thanked Mr. Cabaniss for pulling the final report together.

Mr. Gibbs commented on the complexity of reducing emissions from vehicles. Each part of the system is important – including fuel, repair, maintenance, and emissions controls – and if any part fails, the system will fall short of reaching air quality goals. He cited poor definitions of nomenclature such as “maintenance” vs. “repair” as a common problem in the I/M world. For example, is it better to maintain a vehicle, or wait until the vehicle breaks and repair it? OBD is a maintenance program, while I/M tailpipe tests are repair-based. Stakeholders have found it difficult to justify the OBD program under old definitions of maintenance and repair. He cautioned the developers of the Draft Study Protocol to clearly define repair and maintenance.

Mr. Gibbs also commented on the cost-effectiveness issues in the OBD program. In order to justify the cost of the program, a pollution metric is needed for maintaining a vehicle. If a vehicle is not polluting, but still requires repairs unrelated to emission controls to pass inspection, regulators are left defending the OBD program.

Mr. Walsh asked how a State could receive credit in their State Implementation Plans (SIPs) for preventing vehicle emissions. Ms. Oge commented that the main issue of the OBD was not SIP credit, but defining a metric for emissions prevention. Mr. Cabaniss agreed that these are good examples of the myriad of details that need to be ironed out.

Ms. Zaw-Mon thanked Mr. Cabaniss and the OBD Technical Workgroup for their work. The Workgroup is being phased out, and many States still have concerns about OBD implementation issues. There will be regularly scheduled conference calls with States, OEMs, and other

stakeholders to continue to resolve these issues. EPA is also working with STAPPA/ALAPCO on this effort. She introduced Mary Manners (EPA) as the main contact person for the OBD program. She assured the Subcommittee that as many recommendations as possible will be implemented, barring prohibitive costs. Mr. Gibbs recommended sending a letter of commendation to OBD Workgroup members for their service.

Don Keski-Hynnala (Detroit Diesel) commented that the heavy-duty truck industry is facing heavy-duty OBD regulations. He would like to see lessons learned from the light-duty sector as the program is rolled out.

Mr. Cabaniss concluded the discussion by saying that the cost of I/M programs is very large – \$100 million or more per year for one program – and proper political insight is needed for successful implementation.

Controlling Airport-Related Air Pollution

Coralie Cooper (NESCAUM) gave a presentation on the NESCAUM study of emissions from a large, medium, and small airport – Logan International^b, Boston Bradley, and Manchester respectively. The study was published a year ago. The study included a toxics, criteria, and climate change emissions inventory from aircraft (air carriers, commuter aircraft, cargo aircraft, and general aviation) and ground service equipment (GSE). The report concluded that airport emissions are growing rapidly compared to other sources, and aircraft comprise the largest portion of emissions (90%) as opposed to GSE (10%) (the study did not include emissions from cars or fleet vehicles at the airport). When compared with on-road vehicles, which have contributed a 2% increase in NO_x emissions between 1970 and 1998, airports have contributed a 133% increase in NO_x. Whereas power plants are expected to decrease in the future, airport emissions will increase substantially. By 2020, there is an expected 20% increase in NO_x emissions from aircraft. Emissions from Logan International are expected to surpass the largest power plant. Benzene emissions from aircraft, while lower than emissions from vehicles, are still significant – Logan International reported 16 tons in 1999, which is greater than combined emissions from large stationary sources in Massachusetts and California.

Cleaner aircraft engines are available; a slide comparing aircraft landings and takeoffs at a Zurich airport and Logan International Airport show a large percentage of clean aircraft in Zurich. This could be due in part to a variable landing fee that Zurich applies to all aircraft, in which cleaner aircraft may land for a smaller fee. Ms. Cooper reported that most new, clean engines emit between 5 – 15% less than the current emission standards. New ICAO standards will therefore have a minimal impact on emissions since the standards only affect new engines. The new General Electric (GE) DAC engine will emit 30-40% less NO_x than ICAO upcoming regulations. Pratt & Whitney engines are emitting 20% less NO_x than the standard. Nancy Krueger (STAPPA/ALAPCO) commented that her organization has worked with NESCAUM on this issue. She urged stakeholders to push for more stringent regulations from both ICAO and

^b Ms. Cooper reported that some airports are rebounding in business since the September 11, 2001 tragedy, including all 3 New York airports, but Logan airport has not yet reached pre 9/11 activity levels.

EPA, since EPA has the authority to set tighter standards and the ICAO standard is not stringent enough to be technology forcing.

Ms. Cooper reported that Logan International is beginning to control emissions through operational measures like using one engine to taxi to and from the runway, and they have also instituted a “cap and trade bubble” over the entire airport in order to reduce overall emissions. The airport is assessing a fee to its tenants to fund the program.

Mr. Brown commented that high-speed rail has very low emissions per passenger mile, and asked if rails displaced car and air traffic at all. This system could penetrate the short-segment travel market. He also asked about a per passenger emission reduction breakdown for airports. Ms. Cooper replied that DOT completed a breakdown of emissions per passenger mile traveled. She will fax a copy of the report to Mr. Brown.

Jim Pearson (Georgia Tech) asked if there was a fuel penalty with NO_x-reducing technology. Ms. Cooper replied that there is a fuel penalty, but engineers are developing Ultra-Efficient Engine Technology (UEET) to improve fuel efficiency. When asked if it was possible to retrofit an aircraft engine, Ms. Cooper responded that there are kits available but for a small percentage of engines.

Wayne Miller (UC Riverside) commented that the FAA has established some Workgroups recently to improve emission factors for aircraft (available emission factors are 20 years old). The FAA has outlined a roadmap for the next 5 years to improve critical emission factors like PM for inventory development. Ms. Cooper commented that part of the NESCAUM report includes recommendations like better correlation between engines and aircraft bodies, as well as EDMS improvements.

Ms. Cooper gave a brief update on NESCAUM’s involvement with ports. NESCAUM has a SECA plan to require marine vessels to use fuel with lower sulfur content.

Locomotive & Marine Diesel Rule—Comments On the Advance Notice

Don Kopinski (EPA) summarized some of the comments received on the locomotive & marine diesel rule advance notice of proposed rulemaking.^c This sector is fast becoming a major component of the mobile source inventory because of new controls for the other mobile source sectors. Engines in this sector have very slow turnover – 30 to 40 years – but there are many opportunities to retrofit.

Mr. Kopinski received comments from all stakeholders, and industry comments in particular raised some intriguing questions. Comments from the government were very supportive and encouraged the rulemaking to move forward quickly. They also encouraged other measures like anti-idling and cooperation with international agencies like Environment Canada (who is very supportive and likely to adopt regulations that support this effort). There was a focus on C3 marine engines, and a request to introduce market incentives to speed up emission reductions.

^c Visit <http://www.epa.gov/otaq/marine.htm#anprm> for more information.

The environmental sector comments were also supportive, and pushed for early action. They suggested implementing PM standards in 2009, and NO_x standards in 2011. They pointed out potential regulatory loopholes, and raised health issues associated with diesel emissions.

Engine manufacturer comments included requesting a delay to implement NO_x standards because of fuel economy issues, and because there is very little room to install NO_x controls on these types of engines. They requested a 2010 implementation date for PM engine-out controls, and 2015 or later for NO_x aftertreatment technology. They also emphasized the need for “carrot,” as opposed to “stick,” incentives.

The Recreational Boating sector commented on safety issues, such as the fact that NO_x aftertreatment technologies run extremely hot. They also brought up the size constraints for engine modifications and the difficulty of fitting aftertreatment technologies in existing engine compartments. They also commented on fuel availability, especially internationally. Marine manufacturers tend to be small businesses and it’s a big deal to change the fiberglass molds in order to accommodate larger engines.

Vessel owner/operators commented on harmonizing these standards with international standards. The Coast Guard commented on safety issues. Many comments from this sector asked why locomotives were included with the recreational marine sector. Mr. Kopinski commented that this standard focused on the highest denominator, which was boats, in order to force locomotives up.

The Rail sector comments included feasibility concerns and safety concerns with NO_x catalyts. Catalyts would need to be mounted high on the engine, and this could cause trains to be thrown off-balance. The chance of breakdown may also increase. There is not a lot of experience in this sector with PM traps and there is concern that the residual oil fuel could gunk up the filters. In addition, emission controls could lengthen the locomotive to the point where the cars would come off the track on turns.

Other comments included those from diesel fuel refiners, biodiesel manufacturers, MECA, and the Navy. One comment from refiners was to roll back the 2012 diesel sulfur standards in order to harmonize with international standards.

Ms. Cooper asked why industry commenters wanted to separate locomotive and marine engines in the rulemaking. Mr. Kopinski replied that locomotive and marine engines are very different. The marine vessel sector is concerned that EPA may overlook these differences and try to roll the two sectors together. EPA does recognize that the different sectors need different strategies. The rule could still be split if necessary.

Mike Walsh asked why EPA would not consider a mandate for idle shutdown. Mr. Kopinski replied that the locomotive sector is already doing it voluntarily, and would like to maintain control of that program.

Mr. Gibbs asked about the support structure for demonstration funding for locomotives. Mr. Kopinski replied that railroads were the major funding source, but CARB and EPA were also providing funds. He emphasized that doing anything with railroads is very expensive.

Mr. Walsh asked about retrofit efforts in Europe, especially regarding PM filters. Mr. Kopinski replied that EPA would like to get more involved in that effort. Locomotive engines that are being retrofit in Europe are very small, and are mostly used for rail yard work.

A participant asked why C3 engines were excluded from the analysis. Mr. Kopinski replied that while EPA is concerned about C3 engines, most vessels with that type of engine are not registered in the United States. EPA may be able to regulate fuel specifications, but they are concerned about deterring vessels from docking in the U.S. There is a planned rulemaking in 2007 for C3 marine engines, and EPA will coordinate with the International Maritime Organization (IMO) to ensure that the rule will be supported internationally.

Mr. Gibbs asked if the MSTRS could participate in this process. Ms. Cooper suggested helping IMO write a position paper for EPA, and coordinating efforts with the European Union.

Next Steps

Ms. Rudzinski went over the suggestions for meeting topics:

- Ethanol issues
- Fuel economy labeling
- Climate change
- Biodiesel and alternative fuels
- In-use heavy duty measurement issues, especially evaluation of in-use technology tied into regulatory activity

Ms. Rudzinski commented that EPA will look further at these topics to determine if Workgroups are warranted. Mr. Miller suggested inviting a speaker from the California Airborne Toxic Control Measures (ATCM) program to share recent efforts in the mobile source sector. He noted that California has a regulatory calendar and he recommended that this group should coordinate with California efforts wherever possible, for example, with regards to Ports. There is also a lot of activity by engine manufacturers on in-use emissions measurement. They are trying to understand measurement variability.

Ms. Rudzinski talked about changing the Subcommittee's structure. The Modeling and Retrofit Workgroups will remain active. The Lab Upgrade Workgroup may need to reconvene, as their charge is to review the status of NVFEL every 2 years. She committed to getting meeting information out earlier.

Mr. Gibbs commented that the future of emission controls may be voluntary. In the past, the strategy has been a command-and-control regulatory approach. In the future, people may need to re-think strategies across the board. Topics to consider include who will develop new technologies and why, who will fund voluntary efforts, and who will enforce them. Ms.

Rudzinski commented that the challenge is figuring out how to implement voluntary programs, and how to convince people to take an active role in reducing emissions.

The next meeting of the MSTRS is currently scheduled for September 14, 2005. The retrofit teams will report back at that meeting and there will be time for discussion.

The meeting concluded at 3:00 p.m.

Attendees: Members, Speakers, and Observers

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