

**Clean Air Act Advisory Committee
Conclusion Diesel Draft Recommendations
Meeting Summary**

**April 6, 2006
Sheraton Crystal City
Arlington, VA**

Mr. Tim Johnson wishes to officially acknowledge the hardwork of the Working Group members and especially the sector co-chairs. Gay MacGregor, the working group EPA co-chair, was especially central to the group's efforts.

Ms. Catherine Witherspoon, California Air Resources Board (CARB), believed the presentation was terrific and much needed but thought the language throughout was too modest. She recommended that the word throughout the presentation to describe the mortality effect of particulate, which is present but underplayed, should be "substantial." She said that since the report is recommending an investment of \$52 billion, the language should be more straightforward about the need. Ms. Witherspoon commented that as the committee thinks about possible amendments to the Clean Air Act (CAA), EPA may want to consider using mandates to stimulate these activities. Ms. Witherspoon did not get a strong enough sense of priorities from the report aside from the need for retrofitting the existing school bus fleet. She commented that California is talking about the possibility of means testing as the amount of need exceeds the funding. She said there have been matching requirements but no means testing. She wondered if perhaps the national program is not ready for this, but as the amount of funding increases, it will come up. Transparency and fiscal auditing, she mentioned as also crucial to maintain public trust, although she said the report does not discuss this as much as it probably should. She suggested the report also consider the role of match requirements when discussing grants. In California, there was a one-third to two-thirds match until the amount of funding became so large that a cap was instituted. Short of regulations, it is another way to share the burden and share the rewards of public subsidy programs.

Mr. Rob Brenner indicated that the committee might want to consider how to incorporate the recommendations which are going to be raised by the committee. He said that the working group that published the report might want to get together following the meeting to consider how to incorporate the recommendations and include an addendum for those recommendations that were raised by the committee but did not necessary reach consensus among the working group and committee. Mr. Brenner asked the larger committee if they felt this was an appropriate way to proceed.

Mr. Timothy Johnson, Corning, Inc, noted that this is a consensus document and it involves a wide variety of stakeholders and as such, the wording used in the report is based on consensus from a wide variety of stakeholders. Mr. Johnson agreed with Mr. Brenner's suggestion and thought it was a good idea to add as an addendum to the report a list of the non-consensus recommendations raised by the committee. He thought the recommendations raised by Ms. Witherspoon were noteworthy. Mr. Johnson particularly liked the idea of priorities and said that there are certainly measures which can be incorporated sooner rather than later. Fiscal auditing definitely, for example, has a place in the report.

As an aside, Mr. Patrick Rahe, Hogan, & Hartson, LLP, commented that when the CAA was amended, nobody really thought about diesel retrofits and Mr. Rahe did not think the states and the country would be where they were without the leadership of Mr. Brenner within the agency. This was a consideration that Congress did not include at all in the legislation and he wanted to commend Mr. Brenner for his work.

Mr. Brenner expressed his appreciation.

Concerning specific recommendations, Mr. Raher echoed Ms. Witherspoon's comments about priorities. It seemed to him that the emphasis of the report was on the longer term rather than the shorter term. Mr. Raher listed the following three short term specific priorities;

1. EPA and FHWA need to tell states and local regions how to get CMAQ money for diesel retrofits. Mr. Raher noted his difficulty getting anyone outside of California where Carl Moyer funding is available to do diesel retrofits because of this. When Congress amended the DOT act (SAFETY-LU), it specifically charged the agencies to give retrofit projects priority for CMAQ funding.
2. Obtaining SIP and conformity credits for diesel retrofits needs to be a priority if available CMAQ funds are to be used for retrofits. There are legal, policy, and quantification issues surrounding this and it is impossible to explain why localities are getting a benefit and how localities can get credit for diesel retrofits.
3. Certification process for retrofit equipment needs to be streamlined.

Mr. Raher did not see a reference to agriculture in the report but noted the tremendous potential in this sector noting that there are just as many if not more benefits to individual farmers which should not be overlooked. By including the sector, this also would bring in a totally new funding source from the Department of Agriculture which should not be ignored. For instance, EQIP (Environmental Quality Improvement Program) funds are available to California farmers under a prototype program administered by the Natural Resource Conservation Service (NRCS).

Mr. Brenner asked Lori Stewart to respond to the CMAQ issue raised by Mr. Raher.

Ms. Lori Stewart, EPA, informed the committee that the three shorter term priorities raised by Mr. Raher are also on the top of EPA and FHWA's list. DOT has the lead on the CMAQ guidance, the application process and so forth. The hope is that the guidance they have been working on will be out within the next couple of months. EPA is also working on SIP guidance internally and EPA is hoping to get that out within the next month so states know how to calculate SIP credits for retrofit projects as well as a model rule for applying non-road retrofit reductions to the SIPs.

Mr. Jim Blubaugh, EPA, mentioned there are definitely deadlines coming up with EPA guidance documents for SIP and CMAQ conformity. Incidentally, he said that the retrofit cost-effectiveness study went on EPA's website this morning. On the verification front, EPA has been working with manufacturers to see what works and identifying the most effective way to streamline the process. EPA plans on working with CARB to go through and revise each step of the verification process over the next couple of months based on the knowledge that has been acquired over the last couple of years.

Concerning the agricultural sector, the report, which is the result of sectors that were identified over two years ago, has since been added to the National Clean Diesel campaign as the fifth sector in that campaign and is one the key sectors. EPA has been working closely with agricultural contacts within the agency and contacts at the Department of Agriculture to develop a strategy as EPA moves forward with that particular component. This sector is not being neglected but was added to the mix a little later than the rest.

Ms. Ursula Kramer, Pima County Department of Environmental Quality, enjoyed the presentation and thought it was informative and substantive. Ms. Kramer believed that a comprehensive presentation

such as this allows for more focused discussion which is evident from the level of specificity in the comments.

On the one hand, Mr. Brenner commented, there has been an effort to limit lengthy presentations so that the committee has the time and opportunity to have a general discussion. On the other hand, if the meeting is limited to perhaps two main topics, there is time to have a presentation and some general discussion. Mr. Brenner said that Mr. Childers and he will continue to tinker with the agenda to try to figure out what works. In the meantime, Mr. Brenner encouraged comments from the committee about what they think works best.

Ms. Kramer asked Mr. Johnson what exactly went into the cost-effectiveness calculation which is cited in the report and asked if there are ways to persuade county and state departments that there are some longer term economic benefits. If it is not already in the report, Ms. Kramer felt that including these economic benefits would be very helpful. If economic benefits would not be a significant enough amount, looking at the SIP possibilities and guidance would be helpful.

Mr. Johnson mentioned that there is a health component in the cost-effectiveness calculation and it does include mortality and morbidity. On the cost side, everything from fuel to cost of equipment to maintenance was considered as well. He noted that these are very thorough calculations done by experts.

With regard to taking the document back to state and local government bodies, Mr. Johnson mentioned that the working group did not consider it when they began the report. After looking at the document, Mr. Johnson and the working group realized it is not just recommendations to EPA but is also appropriate as a cookbook for how to simplify the retrofit process across all sectors. The working group would be delighted if the report were used as a reference at the grassroots level as well.

Mr. Brenner wondered if this does not lead to the recommendation that EPA develop a step-by-step guidance document for how local communities can go about creating a program.

Mr. Johnson mentioned that the report touches on this.

Mr. Brenner clarified that the analysis in the report is not cost-effectiveness, but cost-benefit ratios.

Mr. Rich Kassel commented that the American Road Builders Association filed papers in DC circuit a couple of days ago challenging state and local authorities' ability to implement retrofit programs. Mr. Kassel urged EPA, Mr. Johnson and others to take a look at the filing to make sure the report says what it should say based on the lawsuit.

Mr. John Campbell, Caterpillar Inc., praised the work of the subcommittee. He said that the committee did the right thing by breaking it down by sector. After breaking it down by sectors, it is easier to do things that are acceptable to the end users involved. Secondly, he stated that there is funding and technology in place and engine manufacturers and others are working with EPA and other agencies to make sure that the expected outcomes occur so that the benefits of retrofit technology are retained.

Mr. Campbell also commented on Biodiesel with brings up other issues. Most of the engine manufacturers today allow a biomixture of 5-30%. The problem, he said, was that each engine manufacturer has its own specification. It is important, then, to strengthen and support the ASTM biodiesel fuel Specification D6751 and develop blending specifications to ensure high and consistent fuel quality. Efforts to build control and enforcement mechanisms as well as global synchronization of

the biodiesel standards would also support propagation and usage of this fuel by the engine manufacturers. Further, at this time, the impact on the 2007 requirements or the effect of biodiesel on Diesel Particulate Filters remains an outstanding issue.

Ms. Sharon Kneiss of American Forest and Paper Association (AFPA) expressed her compliments on the thorough presentation. Ms. Kneiss wondered if the committee would consider whether EPA should increase the weight limits for trucks. The AFPA found that this would significantly decrease vehicle miles traveled. If federal government would allow the increase, there would be fewer trucks on the road and the amount of fuel used would decrease.

Mr. Johnson responded that the subcommittee did not specifically look at increasing weight limit, which they felt was beyond the domain of the report. The extent of their recommendation was that when auxiliary power units are added to the vehicle, the driver should not be penalized with reduced load.

Mr. Greg Dana, from the Alliance of Automobile Manufacturers, recommended that since new cars are so clean, if new cars could be exempt from testing for the first couple of years and car owners could pay a small fee which is less than the cost of testing, that could be used as a potential revenue stream to set up funding for other programs. This, he noted, does not have environmental costs.

Mr. Dennis J. McLerran from Puget Sound Clean Air Agency and a subcommittee member on the report, expressed that perhaps as the committee adopts the report, the committee can put in stronger language about the imperative to move these programs forward. This could be done, he said, with language that is separate from the report. He commented on a report issued last week that includes "PM2.5 Menu of Options" and the diesel retrofit options have a lot of detail about how to put together a successful diesel retrofit project. The report is available in hard copy.

Concerning getting the funding for this program, Mr. McLerran said that he and others have been trying to get the president to include funding for this in his budget and are trying to work with Congress to make sure this funding comes through. He said that currently there is one element of that funding which is problematic; the funding only goes out to non-attainment areas. Certainly it helps to have PM reductions in non-attainment areas but many of these problems are spread all across the country and if this funding is limited only to non-attainment areas, it will not get to everyone in the country which needs to get it. Mr. McLerran stated that attainment areas also experience air quality issues and the language that gives money only to non-attainment areas should be taken out.

Mr. Christopher Hessler, AJW Inc., said that the challenge is getting the legacy fleet retrofitted. He said this is a murky problem because it is difficult to establish where the sources are and where the opportunities are to retrofit.

The committee report is to be complimented for putting some clarity into this issue. Chris added his compliments to Mr. Brenner and EPA staff for moving this forward. With respect to the report, Chris recommended that more emphasis be placed on getting inventories together. The elements of establishing the cost benefits of the technology and the success of the technology have been laid bare. If there is a more coherent inventory, especially specific to non-attainment areas, it would be easier for people to figure out where the opportunities are and put more energy into it because it will take a sustained effort to get this underway. He mentioned that a lot of troubling things are being said about what it means that Congress has mandated that retrofits are a priority. The committee member urged EPA to be clear about what that means and not waste a lot of time debating it.

Ms. Janice Nolen asked Mr. Johnson to talk more specifically about the necessity to improve the inventory of emissions, specifically as they related to the port sector. Mr. Johnson responded that specifically with regards to the port sector it had to do with priorities within the ports about where the emissions reductions ought to come. There is some itemization and inventory numbers on one of the ports but it is unclear if that is representative of the entire country. The inventory in that sector had to do with equipment by equipment inventories. Ms. Nolen asked if it is accurate then to say that it is unclear what ports' sources contribute to non-attainment areas.

Mr. Brenner responded that the reason the ports are getting priority is because the potential to reduce emissions is surprisingly large. Two ports received awards at the awards ceremony yesterday for their work in this area and the ports themselves are starting to share information between themselves. There is not a complete inventory of port sources but enough is known to know that there is great potential to reduce emissions in this sector.

Mr. Bob Avant, Texas Department of Agriculture, stated that he read the report with great interest. Mr. Avant questioned the calculation on page 35 of the report which discussed bundled costs for adding units and stated that after three years profits for the companies jump \$600 a month. Without having seen the calculations, Mr. Avant questioned these figures and wondered if the lifecycle costs of those bundled units had been included. He thought it was a good recommendation but thought the calculation might be questionable. He went on to say, 10% of the producers in the country produce 90% of the agricultural commodities in this country. When discussing the legacy fleet, 90% of the farmers in this country have a legacy fleet. There are a lot of old tractors out there but in terms of the impact of those users, it's a waste of time to focus on them. According to Mr. Avant, those tractors may only be used about 100 hours a year and those types of things need to be considered. EPA should not be wasting their time on retrofitting equipment at these types of farms.

Mr. Avant stated that agriculture should be included in the report because of the significance of this sector, the uniqueness of the response to the agricultural fleet, and the fire safety concerns in particular applications.

Mr. Avant feared that the recommendation to increase the truck weight limit from 80,000 to 97,000 would not be received well at DOT where they will have concerns ranging from bridge integrity to pavement design. Mr. Avant favored the recommendation but did not think the Department of Transportation would agree.

Mr. Avant expressed that he would be happy to be involved in adding the agricultural sector to the report and noted that there was not one agricultural representative included on the report while other sectors were represented.

Mr. Brenner mentioned that the 90/10 agricultural sector statistic is important and is another aspect of priority setting which should be thought about.

Mr. Dan Greenbaum, Health Effects Institute, commented that the fact that this country still has 2,000 30 year old buses still taking school children to school every day is something of an embarrassment. This is likely as much a safety concern as well as emissions. He suggested it should be an immediate concern. He thought the report was generally very good but thought there were some actions, such as the 2,000 30 year old buses, that should be emphasized more strongly in report. In the ports area, Mr. Greenbaum was surprised that there were no suggestions that EPA needs to get more involved in maritime and ports sector including fuel and engine quality. This, he commented, is a long term recommendation but the report should suggest that EPA accelerate its efforts.

Mr. Ben Henneke, Clean Air Action Corporation, made a comment on the process as the committee moves forward in considering recommending the report. He said that while the report may be a consensus document, the full committee will choose to submit the report with the committee's comments or the full committee will choose to submit their comments and not the report or the committee will submit their comments and not the report.

Concerning truck weights, Mr. Henneke suggested to Ms. Kneiss that their organization do a NOx or PM per ton mile analysis. Most engines have higher NOx at higher loads and this increase tends to be exponential. Mr. Henneke recommended this analysis before Ms. Kneiss suggests higher truck loads from an environmental standpoint. Concerning the ships coming into harbor, Mr. Henneke pointed out that all ships have multiple fuel tanks. It is plausible and within EPA's authority to have ships burn cleaner fuel when docked at port.

Commenting on consensus for the report, Mr. Henneke wondered if it would be consensus from the full committee to bold, underline and emphasize the information regarding SIP credits and technical specification process. While many people in the agency are working on getting these guidance documents out and fixing the process, it does not help if the results are not out at a local level yet. Mr. Henneke suggested that the agency get the information out concerning verification and SIP credit calculations and then work on the process.

Mr. Brenner said there are two choices on how to move forward with the report. One, the members of the working group could consider these comments and include them in the report and with that understanding, the committee could recommend it to the agency. Second, the committee can look at the report at a future meeting after the recommendations have been included and then decided whether to recommend it to the agency.

Ms. Stewart suggested that a revised report, including the committee recommendations, could be recommended to the agency prior to a future meeting with the committee deciding on the revised report via email or conference call. This would avoid waiting too much time and not getting the message out.

Mr. Richard Bolton, Center for Toxicology and Environmental Health, LLC mentioned that he would be distributing the report in Tennessee to about 35 individuals from different sectors. Mr. Bolton said he would be interested in knowing the status of the various guidance documents on which the agency is working. Mr. Brenner said that they will report on where the SIP guidance, verification process, and CMAQ guidance are at the next meeting. Mr. Bolton mentioned that a state level, that is guidance that could be used right away.

Ms. Elaine Mowinski Barron, JAC Paso Del Norte Air Quality, thought that Mr. Johnson's presentation was time efficient for the entire committee, provocative, and organized. Organized information, she commented, leads to more productivity.

Ms. Barron said that when these type of recommendations go to local agencies, perhaps it is worthwhile to explore different areas for tapping dollars and perhaps EPA could suggest different areas, knowing what money is available. In El Paso, the railroad commission provided funding for the school bus fleet to convert to natural gas so there are other funding avenues available beyond EPA.

Ms. Barron also said that when discussing diesel fuel, it is important to figure out how to include the effects on waterways.

Mr. Bob Wyman, Latham & Watkins, LLP, encouraged the committee to look at the Ports of Los Angeles and Long Beach website which have done extensive inventories as well as the CARB website which includes recent health assessment of ports.

Mr. Wyman mentioned that there is a lot of focus on reliance on public sector financing. This is not going to get accomplished without private sector financing. He expressed that the best way to do this may mean getting regulatory programs in place which means mandates. This does not mean that EPA should put traditional mandates in place, particularly given the difficulties with legal authority in some of these areas. He noted that there are some innovative approaches that can be used to make it in the economic interests of some of these sources to participate in this program in a way which is still binding and will ensure that air quality and health objectives are met.

Beyond that, Mr. Wyman noted that even if public sector financing is available, there are still other challenges. Truck drivers in California, for example, are not taking subsidies for retrofits because of the income tax implications. He thought that there are possibly people around this table who know how to get around issues like this.

Mr. Wyman also thought there should be some discussion in the future about how long the life of some of these engines can last after being retrofitted. As the attempt continues to integrate engine and environmental policy, it will be important to discuss to what extent these retrofit solutions are engine modifications as opposed to engine treatment because it will have significant effect on overall fuel economy.

Mr. Bill Rosenberg, former EPA Assistant Administrator, suggested as a compliance strategy near zero sulfur fuel. He said that the governors of Pennsylvania, Montana and other coal states have been promoting the production of zero sulfur fuel through gasification of coal and petrocok. Diesel fuel from coal is about 35 dollar a barrel as opposed to 65 dollars a barrel from foreign sources. Although this country has a clean diesel fuel standard, it is not zero sulfur diesel fuel. He thought the report was superb on the technology side but the committee needs to be clear that this is only one part of the equation. This would be the perfect opportunity to begin an integrated approach by decreasing costs and decreasing dependence on foreign oil. He said there would be a lot of support among governors and there is a lot of support from the Congress already. It would be a compliance alternative to the owners of this equipment and begin the process of EPA looking at these issues in a broader, more politically supported approach.

Mr. Brenner reported that there is an EPA group which is working on coal gasification issues and how best to proceed in that area as well as the other opportunities mentioned.

Mr. Tony DeLucia, James H. Quillen College of Medicine, thought the report was superb and the mayors and governors are going to have a lot to say about this report. He commented that there are many important benefits for health but there are also important effects that this report can have on climate change.

Mr. Gregg Cooke, Guida, Slavich, and Flores, PC, made three points. First, he reported that there is another group which is a part of TERP called the New Technology, Resource, and Development Program and in working with them, will have a \$6 million request for a proposal later this spring for verification of specific retrofit devices that can be distributed to individuals involved in these type of programs. The program will communicate and coordinate with OTAQ to hopefully have some cost efficiencies and time efficiencies for verification of these retrofits so that when the committee meets

again in a year, Mr. Cooke can discuss the success through this program. Second, he noted that the SmartWay protocol with mobile credits is also an interesting challenge. Third, in Mr. Cooke's research, the equipment used in the construction sector is privately owned but over sixty percent in Dallas and Houston area is influenced through public contracts. Therefore, it is possible to put an incentive attached to contracts to provide more money if contractors comply and get new construction equipment. It is being used for the first time in Dallas and Houston. The emphasis, Mr. Cooke stated, is that because the construction equipment is used for public contracts there is the public ability to influence those construction projects.

Mr. Brenner suggested a few options for how the committee can proceed. One option is to tell the working group that the report is in pretty good shape and direct them to incorporate, to the extent that is feasible, the recommendations of the committee and to note that the more complicated recommendations are on the working group's future agenda. To the extent that some recommendations are those of individual's and may not reflect entire committee, those can also be listed as part of the report. Mr. Brenner stated that if it is determined that that is not an appropriate way to go then the committee will have to establish the additional steps that would be needed before the committee would be comfortable sending this report to the agency.

Mr. Henneke recommended a different approach suggesting that the committee submit the report as it is with the comments so that the report can be submitted to the agency. Therefore, at next meeting, the agency can comment officially on what progress has been made. It continues to be talk, he noted, until the committee officially submits it.

Ms. Witherspoon agreed with Mr. Henneke's recommendation and asked if the report would be posted on EPA website. Mr. Brenner responded that it would.

Mr. Childers informed the committee that if they would like to officially submit the report to EPA that there were enough committee members present to do so. The minutes from this meeting would be collected and submitted back to the committee for their approval and corrections and then submitted as part of the report. Mr. Childers said there is the opportunity to take Mr. Henneke's suggestion.

Ms. Barron wanted to make sure that if there are any legal issues at EPA raised by the report that Mr. Brenner does not let it drop within the agency. Mr. Brenner said that no legal issues would be raised by the submission.

Ms. Vickie L. Patton, Environmental Defense, suggested that someone should review the legal issues raised in this report in light of the suit that was just raised against the ability of state and local agencies to implement retrofit programs.

Mr. McLerran was strongly in support of Mr. Henneke's approach. As a member of the subcommittee for the report, he said that if the working group had to take all the comments back, it would not be a pretty process and would not happen in a timely manner.

Mr. Hessler, asked how the comments from the committee and the report will be presented to EPA and online. Mr. Childers responded that the report would be submitted to EPA immediately and then the comments, after being recorded and reviewed by committee members would be submitted to EPA as well.

Mr. Dana agreed with Mr. Henneke's proposal and thought it would be a bad precedent for the committee to rework a report that was put together by experts.

Mr. Brenner moved to submit the report along with comments from the committee. Consensus among the committee to move forward with this approach was met. Mr. Brenner commented that the report is approved and the comments will be passed along to members of committee to look over and amend if appropriate. Mr. Brenner also commented that the working group may want to look over a few things before formally submitting to EPA so it will not be submitted immediately.

Mr. Johnson commented that the recommendations which were heard at the meeting were fantastic.

Ms. Stewart acknowledged Ms. Gay McGregor who co-chaired the working group along with Mr. Johnson and who was unable to be at the meeting.