

Clean Air Act Advisory Committee
February 3, 2010
DoubleTree Hotel
Arlington, VA

Opening Remarks

Robert Brenner, United States Environmental Protection Agency (USEPA), welcomed and thanked everyone for coming. He turned the floor over to Gina McCarthy, USEPA, for an update on EPA activities.

Ms. McCarthy commended Janet McCabe, USEPA, for her recent rise to a new position in the Office of Air and Radiation, to which she brings creativity and experience. Administrator Jackson has released her list of things to address, at the top of which is climate change and clean air.

Ms. McCarthy explained that she released a memo that is reflective of the Administrator's priorities, and submitted it to staff. It tries to align thoughts around a variety of tracks with common themes, many of which revolve around the reality of climate change. Simultaneously, they must keep in mind the clean air challenges and push those forward at the same time as other concerns, rather than separately. This is why the EPA is moving towards a multi-pollutant strategy.

Under the climate change umbrella, Ms. McCarthy would like to see better communication on the science of climate change. She is upset that the public is more confused about the science of climate change now than when the EPA began its discussions. A better understanding of climate science will provide the necessary foundation for taking action.

The second category to address is stationary sources and greenhouse gas (GHG) emissions. A mandatory reporting rule that was put out essentially covers most sectors. EPA is already doing outreach with industry categories to ensure that they understand the requirements. The reporting rule will provide an opportunity to see where strategic investments are possible, which investments will drive down GHGs and save considerable money, boosting the economy.

Next is the contentious Prevention of Significant Deterioration (PSD) tailoring rule. There have been more than 420,000 comments on it, a lot of which are excellent. They look at implications of the rule that the EPA did not anticipate, and give them a range of options on what makes sense to address. There are legitimate concerns about the proposal; however, with the administrative options available, EPA will address the issues in a way that makes sense to everyone.

There also are significant resources for New Source Performance Standards (NSPS), which need to be considered as they look at best available control technology (BACT) challenges. GHGs and NSPS seem to match up in terms of problems and tools available.

The third issue, that of multi-pollutants, is part of EPA's discussions on utility strategy. Rep. Cooper has been pushing this issue for awhile: his next bill is a three-pollutant bill, which he hopes to marry with climate change legislation. This will set a pathway forward in the utility industry that matches President Obama's interest in a clean energy future.

Moving onto vehicles and fuel, EPA is rushing to ensure that the light-duty vehicle rules are ready by March. This has been the first opportunity they have had to partner with the National Highway Traffic Safety Administration (NHTSA) to put out one joint rule. Ms. McCarthy said she is confident the rule will come out in March and impact 2012-2016 model years.

Next, Ms. McCarthy spoke about the complicated nature of the second renewable fuel standard rulemaking. It was the first time she was involved in a rulemaking where they were developing the models themselves and exploring how to pull them together, which was groundbreaking and exciting.

Ms. McCarthy next addressed E15, explaining that EPA is looking at how to bring higher ethanol blends into the market. This is extremely challenging, and they are looking at testing vehicles with the Departments of Energy and Transportation (DOE, DOT). Early results look like the younger fleet, model years 2001 to present, are doing well in terms of their ability to handle the E15 blends; however, it is still too soon to be certain.

The Agency is also interested in looking into labeling for fuel efficiency as a whole. The old "mpg" symbol does not mean as much as it once did, as it does not give consumers a good understanding of the costs associated with running their vehicle, especially as we move into electric and other technologically-advanced vehicles.

Since the endangerment finding was not just about light-duty vehicles, but about mobile sources in general and their contribution to GHGs, the Agency is also looking at heavy-duty vehicles and will move forward to look at the potential for additional tailpipe standards. They have eight petitions on the mobile source side that will be addressed.

Another issue related to GHGs is the kind of partnerships that need to be used to promote GHG reductions, such as EnergyStar. Ms. McCarthy expressed her excitement about the consumer acceptance of EnergyStar and the agreement the EPA has with DOE.

The SmartWay program is growing as a foundation for a more specific analysis of goods movement, and has a tremendous benefit. The goods movement issue is very important for the Administrator because of environmental justice concerns for communities that live around transportation centers.

Internationally, the Agency is looking at continuing methane to markets. There are opportunities in this sector for quick reductions in GHGs, and they are looking at HFCs and how to address them in the Montreal Protocol.

Ms. McCarthy next spoke about air quality, and her concern with the incredible workload and pace that must be reached to move forward with National Ambient Air Quality Standards (NAAQS).

Another challenging issue to be dealt with is that of toxics. The manner the EPA addresses this issue will be a mark of whether they are successful in a multi-pollutant strategy and in responding to the needs of environmental justice communities and children.

Ms. McCarthy emphasized EPA's continued work on indoor air quality, and the need to recognize the numerous opportunities for improvement in these programs.

Environmental justice is also a big issue for the Administrator. This issue must be addressed through a multi-pollutant strategy and a planning process that focuses on toxics. If NAAQS are going to be implemented quickly, they cannot expect all individual State Implementation Plans (SIPs) to be completed and implemented in time. They must provide a coherent message that recognizes science and moves standards forward in a way that allows states to create meaningful plans.

Data has presented a communication challenge and has pointed out that the issues being identified are community based issues. Part of the budget moving forward is to look at more community-wide challenges and determine whether the EPA's permits are effectively dealing with local pollutant issues, and what this means in terms of how to work with states and communities.

Ms. McCarthy said that they will also systematically and comprehensively address the leaks and flares in malfunction emissions.

Additionally, EPA will continue to look at clean diesel grants, and how they can align investments. She said they recognize the need to disseminate money in smaller chunks so that tribal communities can take advantage of it, since now they are essentially only allowing the money to be tapped by larger communities that can expend significant amounts of money.

Ms. McCarthy concluded her opening speech by discussing the process that looks at how decisions are made and whether time is being wasted in certain process steps that do not add value. They started a process of looking at SIPs, beginning with Region 7, which informed them about what is needed to make the relationship between states, regions, and headquarters more effective in terms of moving implementation forward.

Lastly, Ms. McCarthy asked the CAAAC to help brainstorm ways to celebrate the 40th anniversary of the Clean Air Act, and how to remind people of the progress that has been made in this arena.

Stephen Hartsfield, National Tribal Air Association, stated that he appreciated the updates and the mention of tribal issues. He commended the Agency's timely and

productive response on diesel retrofits, which enabled tribes to submit applications for diesel retrofit grants. Mr. Hartsfield said that three things he did not hear Ms. McCarthy mention were promulgation of tribal new source review; comments or actions from the EPA regarding the tribal White House leaders summit where President Obama signed a memo giving 90 days to come up with a federal consultation policy; and mention of funding for regional planning organizations (RPOs) back to a level where full participation of all states including tribes will be refunded.

Ms. McCarthy stated that they will have a lot more discussion regarding RPOs. They aim to determine how, with the scarce resources of states and tribes, they can create a better network of technical expertise so that each state does not have to duplicate specific expertise as they struggle to implement federal rules.

Carolyn Green, Sunoco, Inc., asked to what extent EPA will be working with the CAAAC on environmental justice issues, in terms of formulating air quality recommendations that speak to both issues and have support of both the National Environmental Justice Advisory Committee (NEJAC) and the CAAAC.

Ms. McCarthy stated that she would like to recognize that the CAAAC has tremendous expertise for the EPA, and encouraged them to think about how they can use their time more effectively as advisors and put forward recommendations.

Ms. Green asked whether the NEJAC is being resuscitated, and whether there will be opportunities for joint collaboration.

Ms. McCarthy responded yes to both of Ms. Green's questions. She said that the Administrator has made environmental justice a very large priority.

Michael Formica, National Pork Producers Council, said that he was extremely impressed with the participation in the NEJAC meeting in New Orleans, and how 50 members of the public were in attendance to comment to the advisory committee. With the renewable fuel standard coming out, and the E15 standard in the making, they also should have a process to look at revising the ozone standard. He asked Ms. McCarthy to speak to EPA's stance on this in terms of the ozone debate.

Ms. McCarthy said that the EPA is well aware that a delicate balance exists, and they will have to think about ozone as they mull renewable fuels. She disclosed that the renewable fuel standard is going out today, and was an enormous challenge because of the indirect land use issue.

Bill Becker, National Association of Clean Air Agencies, commented that Ms. McCarthy's remarks were refreshing, especially her acknowledgement of the critical role that state and local government agencies should play in the air pollution control program and its implementation, and in the GHG implementation program.

Eddie Terrill, Oklahoma Department of Environmental Quality, stated that he agreed with Ms. McCarthy's comment about the need to communicate the science of climate change, but that there also is a need for the connection between public health, and SO_x, NO_x, and ozone to be communicated as well. Once the standard is raised, many cities may drop from attainment to non-attainment. Therefore, it is important to communicate to these communities that there are grounded scientific and public health reasons behind the raising of standards; otherwise the public will not accept the new requirements.

Gene Trisko, United Mine Workers of America, thanked the Agency for the way it handled communications to the full committee throughout the BACT work group process. He expressed the need for a public comment period on the draft BACT guidance. Next, Mr. Trisko brought up the topic of the new political environment. He stated that the Agency must be mindful of the consequences of their pace of regulatory initiatives on GHG actions. He stated that there is a fairly large basis of support for national legislation as the preferred means of addressing GHG legislation.

Ms. McCarthy thanked Mr. Trisko, and followed up saying that the Administrator has made it clear that both legislation and regulation are necessary. The legislation will lay out some 17 or so regulations that will have to be completed in the first six months; states will be obligated to take some 60 separate actions, and everyone will be in it together.

Elaine Barron, Sierra Medical Center, asked how Ms. McCarthy planned on addressing air toxics strategy, and whether she thought that the current and new rules and the Clean Air Act are enough to cover all the toxics.

Ms. McCarthy said that when the budget is addressed, it will become evident that there are many tools available under the Clean Air Act that can be used to analyze the toxics issue.

Chris Hessler, AJW, Inc, expressed his excitement at Ms. McCarthy's comments from the perspective of technological innovation. He stated that in terms of the renewable fuel standard, there is still much to be done in terms of delivering technologies to the marketplace that were envisioned when Congress first wrote the rule. He hoped that the Agency considers the renewable fuel standard a down payment on enabling those technologies, but recognizes that it needs to work a lot with industry to get the next generation fuels into the marketplace.

Mark MacLeod, Environmental Defense Fund, addressed the 40th Anniversary of the Clean Air Act, and stated that there is a whole generation now that takes the Act's accomplishments for granted. He suggested organizing an informal team to put together social networking and visuals in order to communicate to people. As such an enormous victory in light of a state, federal, tribal, local, and innovative company partnership, it is important to find a way to tell this success story.

Update on EPA Budget

Robert Brenner, United States Environmental Protection Agency (USEPA), introduced the budget discussion by saying that Gina McCarthy is the assistant administrator he has seen as most willing to look hard at the budget. That is reflected in the budget with a strategic set of investments.

Beth Craig, USEPA, gave an overview of the budget. The air program has \$82.5 million more for state grants, to be divided into three areas. The first area is core programs, which will receive an additional \$45 million. Another \$15 million will be for air monitoring equipment. The remaining amount will provide funding the state and local permitting agencies as they prepare for greenhouse gas (GHG) permitting responsibilities when the regulations are put in place for stationary sources. There is also money for headquarters and the regions to work with states on that implementation, allowing us all to work cohesively. For the first time ever we will now have a multimedia implementation plan for tribes.

The Diesel Emissions Reduction Program (DERA) got \$300 million under the American Reinvestment and Recovery Act. All of those grants were awarded by September 30, 2009. It was great to be able to put the money toward larger projects that would not ordinarily receive grants under the normal appropriations process. The Agency also just completed awarding the 2009 and 1010 dollars, which will go to the smaller programs.

In the climate arena, the Agency has a budget request to address its legal obligations, which gives them the ability to do the analytical work they need to do as an agency, like taking the next steps on carbon capture and sequestration. They also requested additional resources for the EnergyStar program. They are also now looking at air toxics at the community level instead of just at schools. There is a program with the Office of Enforcement and Compliance Assurance (OECA) to work with communities to reduce air toxics. The budget also increases funding for the indoor air program through Tools for Schools.

Gary Jones, Printing Industries of America Graphic Arts Technical Foundation, asked Ms. McCarthy the status of the ozone standard proposal. He also asked about the success of international compact cities, where 12 of the 13 cities achieve success.

Steven Page, USEPA, answered that some items will come out this spring, including the 1997 8-hour ozone backsliding rule. The guidance for the reconsideration is expected to come out at the same time as the rule.

Mr. Jones also asked what the Agency's position is on early action compacts.

Ms. McCarthy replied that those were considered illegal. This is not a tool they can continue to use.

Bernie Paul, Eli Lilly, encouraged the Agency to use lean processes. This was very effective when used in Indiana. It was very energizing for lower level staff to be able to express their views of how good a job management is doing.

Tim Johnson, Corning, Inc., expressed disappointment on the \$60 million request for DERA funding, which is in line with previous years. Last year the Agency spent \$300 million but had requests for a lot more, indicating a lot of demand for retrofit dollars. This is an excellent program with great health benefits, and this request seems very modest in light of the political capital. Why go for such a modest amount?

Ms. Craig said that between 2008 and the 2011 request, the project will have received over a half billion dollars, although it seems that chunks of \$60 billion at a time can get lost. There are a lot of great projects out there.

Subcommittee Report Outs

Robert Brenner, United States Environmental Protection Agency (USEPA), discussed multi-pollutant and sector based strategies. He said the belief is that if you start to look more seriously at multi-pollutant solutions, criteria pollutants and eventually greenhouse gases (GHGs) together, it will lead to more efficient State Implementation Plan (SIP) planning.

He argued that this is not an efficient use of the state planning resources to address each pollutant individually. Additionally, by turning to the facilities themselves it is not good for their planning of how to best meet these standards. The Economic Incentives and Regulatory Innovation subcommittee was asked to begin thinking through these issues, and to provide thoughts on whether or not they would be interested in engaging on these issues over the coming year.

The first point made was that it really is a silo based process in the air quality management and planning world. He could think of too many examples in recent history of people focusing on one set of pollutants and then another, and a real reluctance to attempt to mesh the two.

The next point was the result of a conversation that Carolyn Green kicked off regarding some environmental justice implications of moving to this approach. It is important to consider these issues early on. If it is perceived that certain regulations are just going to be delayed, or that people will be allowed to not invest in cleaning up facilities in some communities, especially disadvantaged communities, a good deal of concern will be raised.

Thirdly, they discussed new technology issues, and how a program like this would need to be structure to make it attractive for companies to invest. Companies would need to see that the market values the ancillary benefits that the new technologies may provide.

Finally, the subcommittee identified the tension between providing flexibility while ensuring that there will be air quality, environmental, and health results. He said a reoccurring question that accompanies innovation is how to make sure that as you provide sources and state regulators with additional latitude in how they develop the plans and compliancy strategies, that still is done in a way where it is known that within some time period there will be results and reductions made and health benefits accomplished.

Chris Hessler, AJW, Inc., repeated one part of the discussion that had occurred the day before for those who had not been in attendance. For many of the members of the subcommittee, a necessary first step in the process of reimagining how the Act is approached is to identify concrete issues to focus on. There are a lot of impediments in the Act to the best intentions, and the challenge is to make sure that when migrating from a silo approach no important protections are lost, and that meaningful improvements to health issues are made. His main comment was that the task is enormous, and people must think of engaging in this project as ambitious incrementalism. He thinks one of the first steps the committee should take is to document the multiple reasons this makes sense, and to think about the tradeoff issues. How does one ensure that environmental justice issues are not victimized by economic efficiencies?

Mr. Brenner thanked Mr. Hessler for the points he made, and suggested that for the next meeting they should have Peter Tsirigotis and his staff present on some of what they have done. They have looked at issues for a number of different sectors and identified what the possibilities and pitfalls could be.

Lisa Gomez, Sempra Energy Utilities, said she was really happy to hear that the work is moving forward on multi-pollutant strategies, as it has been talked about for years as important. She also wished to remind the committee that it is not just about multi-pollutants but also about multimedia such as impacts to water and hazardous materials.

Bernie Paul, Eli Lilly, wondered if the committee fully understood the range of implications that multi-pollutant strategies have. He asked the committee to consider the smaller industries, or those that are operating in a very competitive environment globally, and whether or not the strategy works as well there. If you hit a company with multiple requirements all at once, the result could be a big change in how they are conducting their business that proves to be significant enough to put them out of business.

Peter Tsirigotis, USEPA, acknowledged that this was a very good point, and that they are looking into the issue. He said that even in small businesses they are finding that there are circumstances where hitting them with one requirement after another does not allow them to make investments in control technology based on the whole picture. He said that while they have not evaluated all industries, there are definite win-win opportunities for the big industries, but also some for the smaller industries.

Mr. Paul asked for some examples of the small industries where a multi-pollutant strategy has worked in their favor.

Mr. Tsirigotis responded that while they have not done the actual regulations, they are looking at smaller industries that are using various kinds of VOCs and HAPS where controls can be put in place to control those VOCs and HAP emissions. If the criteria side were to go after VOCs, and then later the toxic side decides to go after organic HAPs, it would be pretty much the same thing. However, if it were all laid out at once the company could decide to shift their practices one way or another, and what may not have been a cost effective decision when looking at the regulations separately, could become a beneficial reformulation.

Mr. Paul agreed that those initiatives made sense, but pointed towards the Midwest where there are still a lot of people who burn non gaseous fuels. Whether they burn oil, coal, or wood waste, if they get hit with NOx or SO2 carbon requirements all at once they could be shut down.

Mr. Tsirigotis agreed that this was a fair observation, but what they are also looking at throughout this process is the suppliers of industries who may have been focusing on single controls for single technologies.

Mr. Brenner made a couple of points, including that the current industry sectors they are looking at tend to be larger ones. The other point is one that Ms. McCarthy just raised, which was there are a lot of different views about what constitutes a multi-pollutant strategy. A beneficial first step for the group to decide would be what kinds of multi-pollutant strategies they want to focus on, so that a clear definition can emerge.

Mr. Hessler commended Mr. Paul for getting right at the heart of the matter in pointing out the tension between flexibility and certainty. He believes it will be a difficult discussion of how to implement something like this in a way that will have the support of health and environmental communities as well as regulated entities.

Mr. Brenner wrapped up the discussion by promising to get word out, and gauge interest about who would like to be on the subcommittee. The plan for addressing BACT and GHG issues is to first receive comments back from Ms. McCabe regarding the sense of what has happened so far and the next steps.

BACT/GHG Report Review and Deliberation

Pat Childers, United States Environmental Protection Agency, said that the Phase I report from the greenhouse gas (GHG) work group is being presented to the full Clean Air Act Advisory Committee (CAAAC). The co-chairs will describe how this report came about. There will be some minor grammatical revisions.

Michael Formica, National Pork Producers Council, said that questions on small businesses and the tailoring rule were not included.

Mark MacLeod, Environmental Defense Fund, said he thought they resolved not to make changes to the text of the report. He did not want to dismiss Mr. Formica's arguments, but they are about the applicability and impact of the tailoring rule. He expressed concern about how making this change could open up the document for other edits. He did not see the need to make a statement on the impacts of the tailoring rule to small businesses.

Mr. Formica said that it would appease a lot of people to include this language. Beyond the tailoring rule, once an endangerment finding is made, it triggers a lot of other aspects of the Clean Air Act.

Eric Svenson, PSEG, suggested including this in the transmission letter, but not in the body of the report. The process to get to this report was very involved.

Mr. Childers suggested beginning the presentations and allowing Mr. Formica to have the first comments.

Eric Svenson, Calpine Corporation, introduced himself as one of the co-chairs for the climate change work group, along with Mark MacLeod and Peter Tsirigotis. They worked closely with 35 very dedicated representatives from various industries, including those from state and local permitting authorities, environmental and public health organizations, and a team of EPA representatives. The effort was kicked off in October of 2009, and since that time they have had five face-to-face meetings that ranged from DC, to Raleigh, NC, to Los Angeles; six full days of deliberations; and broke into four subgroups that met over the months. It took 2,500 to 3,000 work hours to develop the report.

Next, Mr. Svenson discussed the charge of the subcommittee. He read aloud the three parts of the charge, and identified them as pieces of two different phases of the work. Phase I was to identify information and guidance that would be useful for EPA to provide to state and local permitting agencies concerning the technical, economic, and environmental performance characteristics of potential BACT options, and to further identify approaches to enable state and local permitting authorities to apply the BACT criteria in a consistent, practical and efficient manner. Phase II would be to identify the major issues and potential barriers to implementing the prevention of significant deterioration (PSD) program under the Clean Air Act (CAA) for greenhouse gases. He explained that what was not written into the charter but later explained to the committee members by Mr. Tsirigotis and Mr. Solomon, was that while consensus would be valuable, it would also be very valuable to see what issues caused contention and what the rationale was behind the various opinions. He explained that the two phases outlined in the formal charge were to yield two different reports, one being interim and the other being final.

Mr. Svenson discussed the caveats associated with the report they had produced. The work group was comprised of a diverse group of stakeholders, who had a wide range of views from those who questioned the appropriateness of using the CAA to regulate GHGs, and then others who saw this as EPA's opportunity to force GHG reductions and

technical innovation. Others thought BACT should be applied differently for GHG than criteria pollutants, whereas some thought there should be no difference. Some members questioned the scope of applicability of PSD and BACT to GHG sources, and as such proposed that the work group examine other sources that may be better suited to GHG sources and to climate stabilization objectives. He said it became quite apparent the work group's effort needed to be divided, first by focusing on the original BACT process and current application of it, and then as a second phase they would undertake a more expansive conversation about alternatives and supplementary approaches to applying the PSD program to GHGs.

Mark MacLeod, Environmental Defense Fund, said that in an effort to organize the work, EPA sent a list of questions to them at the beginning of the work project. These questions were described as the kinds of things that permit engineers, people processing permits and applications, are going to be looking for; whatever help the work group can give in answering the questions would be helpful. One of the first conference calls was devoted to sorting through these questions and putting them into logical groups, which ultimately led to the four categories: defining the source, criteria for determining feasible control technologies, criteria for eliminating technologies, and the needs of states and stakeholders. He said that they grouped the questions between these categories, and that the work group then split into the four issue teams to tackle the issues under them. Mr. MacLeod said that the committee would hear the perspective of the issue team leaders later, but first he was going to speak about the highlights of the report from the perspective of a chair person.

The first point that the work groups identified was that there are a number of areas where EPA guidance is really helpful. These areas included the appropriate methods and formulations for calculating a cost related to GHG controls, how clean fuels should be evaluated under the BACT process for GHGs, and how to evaluate energy efficiency in a BACT analysis in a sector-by-sector basis.

The next major highlight Mr. MacLeod commented on was the lively discussion associated with defining the source and scope of analysis, which would be discussed in full by Don Neal later. He said at the core of the issue was whether or not GHGs changed the scope of analysis, and that processes and not just the emissions unit have to be looked at.

The next highlight Mr. MacLeod observed was the sense that the NSR manual and the top down BACT process has a general level of flexibility and the ability to weigh different characteristics, and it works. No one took issue with any one of the five steps that constitute BACT reviews, but agreed the top-down BACT process had the structure that it needed.

The final highlight he referenced was the needs of states and stakeholders. He mentioned issues such as what the states would need to process the applications, and what does industry need in order to have predictability about what they should put forward.

Don Neal, Calpine Corporation, said that they decided to break their topic down into two questions, which in their most simplistic form, he described in terms of “inside the facility” and “outside of the facility.” The first question was what is the source, and to what extent should BACT consider reduction opportunities separate from the emissions unit. This he explained as the “inside the facility” question, because if someone decides to make a major modification or build a new facility, they must differentiate between what is fair game for GHG emissions, and whether or not it will be different from that of criteria pollutants. The second, “outside the facility” question was at what point does a control option define the source. Mr. Neal gave an example using Calpine, saying that if they were in the natural gas combined cycle power generation business as well as geothermal, would the source be redefined if they were required to look at a solar project instead of proposing a combined cycle power plant.

Mr. Neal explained that for each of the questions they came up with a consensus position and a point-counterpoint where there were areas of non-consensus. The first position was related to the “inside the facility” question of what is the source and to what extent should BACT consider reduction opportunities. The consensus position was that EPA should continue to apply BACT to units undergoing a physical and operational change. He then explained that the non-consensus recommendation, depending on the perspective, was either the EPA should stop there and do no more, or that the statute allowed applicants and permitting agencies to require a larger scope of BACT. He then talked about the counter point to that: keeping the scope of analysis as it currently is, with the view that expanding BACT would create too much uncertainty. He said that from the perspective of someone proposing a major modification, they really would not have an understanding of how far they needed to go in evaluating potential process modifications or equipment upgrades to satisfy the requirements for BACT.

The second recommendation, aimed at the question at what point do potential control options redefine the source, he described as starting an even more interesting conversation. The consensus opinion was that the EPA needs to define what it means by terms like “fundamental business purpose” and “basic design.” There was much disagreement, and the non-consensus opinions were that BACT should not redefine a project such that it would change the fundamental business purpose or the basic design. He said that environmental agencies are not best equipped to evaluate an applicant’s business decision, whether it be generating electricity or manufacturing automobiles, as the people proposing these projects have done the work necessary and that is why they are proposing their particular approach to satisfying a need that they have identified. The counterpoint to that non-consensus opinion is that statutory BACT requires a broad review of alternative production processes, including clean fuels, and that expanding the scope of BACT to evaluate those processes, if it does not materially change them, is certainly warranted and supported by the staff.

John McManus, American Electrical Power Service Corporation (AEP) directed everyone to the text of the report. Page 5 of the report contained the two things Mr. McManus’s issue group examined, which were which technologies were demonstrated in practice, and what criteria should be used to determine the technological feasibility of

control measures. They put emphasize on the second item, on the basis that the group did not have a technical expertise to comprehensively address the first issue.

The first recommendation is that the EPA should handle the first issue through the Office of Research and Development (ORD). Since GHG technology development is in the early stage it is necessary to have systems in place through the clearinghouse and through the EPA's database to provide information, particularly to permitting agencies and the regulative community, on what technologies are out there.

The second recommendation Mr. McManus talked about was that the EPA should explore creative ways to encourage the use of GHG control technologies. He explained this further by saying that the EPA should provide guidance regarding evaluating energy efficiency in a BACT analysis, on a sector-by-sector basis.

The next three issues they have within the report relate to general criteria, what is meant by "demonstrating practice" and a discussion of technology transfer. He mentioned that by looking at the report, one can observe that they mainly went back to the draft NSR workshop manual from 1990. The areas of consensus contained within the report are in large part from the manual.

They had an area of non-consensus relating to the role of commercial guarantees in determining whether technology is technically feasible. The differences here related to whether or not you had a commercial guarantee, and if you do, does that mean absolutely that technology is feasible, particularly at the emissions limit? He said that from the regulated community perspective, while guarantees like that are sought, they often do not have a lot of weight behind them. This could create situations in which regulations are not met, yet it has negligible effect on the supplier.

In the next two areas – what is meant by "demonstrated practice" and "technology transfer" – there are areas of consensus and no areas of non-consensus. The one comment Mr. McManus had was in terms of "technology transfer." They had discussed transfer of technology from one source category to another source category. Technology transfer may be from another country to the United States, and there was full agreement that it is appropriate to look at those types of technologies, as long as certain criteria are considered, such as if they really are applicable. The next issue his work group discussed is on page 11 of the report, and is innovative control technology. This discussion recognized that the innovative control technology that is in the current rule has had little use and even less success. Here they concluded that given that GHGs really do cry out for technology development, we need more flexible ways to give us more options to try new development technologies.

They then looked at three specific approaches that might be taken in terms of technology. The first was carbon capture and sequestration, and there was a full agreement that this is a technology well into its early stages and should be followed closely in terms of BACT evaluations. There was also general consensus that the ability to pipe to another source should be investigated. Mr. McManus highlighted one non-consensus issue having to do

with this approach, that if there was not storage space nearby, could that be used to change the location of the source? The second area discussed was energy efficiency. He gave the caveat that with this issue they looked at energy efficiency in the context of the unit that is subject to the BACT analysis and not the broader view that was discussed across the work groups. There was consensus on a few areas with energy efficiency, first being that energy efficiency limits may be difficult to quantify into an emission limit. The area of non-consensus is whether to apply energy efficiency at the unit itself or can you look at a broader base. The last issue they addressed was clean fuels, and there was general agreement that different fossil fuels have different CO₂ characteristics. If different fuels are used there will be a different CO₂ emissions rate. They did not, however, reach agreement on how to apply clean fuels in a BACT process, and it goes back to the issue of redefining the source.

Ann Weeks, Clean Air Task Force, structured her presentation like the steps of the BACT analysis. The central question her group looked at was how environmental costs and other issues get factored in. Ms. Weeks summarized the five issues that emerged from the longer paper produced by the working group.

First she discussed the trade-offs between GHG controls and criteria pollutant control applications. How should a hypothetical negative impact of a GHG control on criteria pollutant control be considered? What if efficiency decreases or criteria air pollutant increases occur because one must control GHG? The second issue she talked about dealt with what other environmental impacts may be important in addressing GHGs and BACT. The third issue was about how offsite energy should be considered. These might include raw material impacts, fuel production impacts, off-site energy use, and what would happen if energy use went up due to choices made in order to control GHGs. The fourth question she presented was related to the differences between GHGs and criteria pollutants in the sense of the magnitude of the tons produced. The fifth question that the work group tackled was about how the combustion of biomass should be considered, if at all, in the BACT analysis.

For the first issue, it was generally felt as a consensus position by the subgroup members that the states have a lot of valuable experience to date in evaluating trade-offs between pollutants, and that the states should continue to use their vast experience with the current BACT practice in evaluating the trade-offs between GHGs and criteria pollutants to see if there are any. There was no consensus on whether a permitting agent can limit control technology of either criteria pollutants or a GHG control technology, based on the impact in the other pollutant. If a criteria pollutant control technology has GHG impacts, some members thought the criteria pollutant should always have priority, while others felt the contrary, so long as the NAAQS is not exceeded.

On the issue of other environmental impacts and how they are considered an issue in BACT analysis for GHG, the consensus view was that this is not a new question and there was much discussion about what the related impacts are. Ms. Weeks stated that the recommendation was that the EPA should emphasize that collateral impacts should be carefully considered, and that on this issue there were no non-consensus positions.

The third issue had to take into account offsite energy-related impacts, and here the group felt that in the short period of time they had to discuss how GHG BACT should work, there is some value in the current guidance. The key questions the group could not come to a consensus agreement about were where and how energy efficiency gets evaluated.

For the fourth issue, which raised the question about cost effectiveness, the group recommended that GHGs should be assessed on a CO₂ equivalency basis. This is where the subgroup could not reach a consensus, as some members felt that it is appropriate to set threshold cost effectiveness values for GHGs in various amounts per ton, while others thought there was no appropriate ton figure that should be selected, but rather that BACT is done case by case.

Lastly, Ms. Weeks discussed the fifth issue, the questions related to biomass as a clean fuel. The members of the group agreed that there is no precedent in the current BACT program for issues presented by biomass. Traditionally BACT looks at emissions from units, and not at issues of how the fuel is sourced. The consensus regarding this issue was that the EPA should develop guidance with respect to how biomass fuels are to be treated in BACT analysis, and whether the use of biomass fuels should allow an applicant to avoid BACT applicability. Ms. Weeks said that along with this comes the issue of whether biomass should be considered carbon neutral, and there was no consensus between members about that. Some members felt that biomass is inherently carbon neutral, and some felt that while some biomass fuels may be carbon neutral based on sustainability and where they are sourced from, that is not sufficient, and the EPA needs to define this clearly. Ms. Weeks said that further dissent came from the states' members on the subgroup, who were of the opinion that conducting case-by-case evaluation of this issue was going to be very labor intensive.

John Paul, Regional Air Pollution Control Agency, thanked Mr. MacLeod, and then directed the subcommittee to follow along on page 16 of the report, "The needs of states and stakeholders." First he said agencies will use the existing SIP approved PSD process, as the work group did not envision a new process for GHG BACT determinations. Next, they envision that some form of the Tailoring Rule will be adopted by the EPA. Going off of those basic assumptions, Mr. Paul discussed their recommendations. The first big topic is communication, and they suggest a periodic GHG control measures newsletter be adopted by the EPA. Likewise, he said there needed to be communication among the EPA's headquarters, the regions, and state and local permitting agencies on permit decisions.

Many here are familiar with the RACT/BACT clearinghouse, and there is also a mitigation database that is being developed by ORD, which is called the GHG ORD mitigation database. Mr. Paul and the work group ask that both be readily accessible, timely, complete, and adequately staffed. Directing the committee to page 18 of the report, Mr. Paul listed the following guidance needs specifically: the appropriate methods for calculating costs, how to evaluate pollution prevention methods, guidance on efficiency improvement measures, emission factors including fugitives, biofuel effects on

GHG emissions, monitoring requirements, test methods, acceptable control technologies, ranking of GHG with regard to impact, netting GHG under the PSD rule and whether that is to be allowed, and then many more that are not listed.

Mr. Paul's group primarily had consensus, but there were two areas of non-consensus. The first is in regard to the appropriateness of New Source Performance Standards (NSPS), as there were some on the work group who did not believe that NSPS was an appropriate tool for GHG emissions. Others were concerned that though they might be a good tool for new sources, if the EPA tried to use NSPS to control existing GHG sources, problems would emerge in approaching the system, as well as at the state and local agencies with regard to resources. He said that although there was general agreement that a NSPS for new sources would be a good tool to provide a baseline, there was not consensus. The other area of non-consensus was with regard to presumptive BACT. Going into this issue they recognized there may be some legal problems with presumptive BACT, but there was a strong call from state and local agencies for some form of it, especially for smaller sources. However, he explained that some members were concerned that this would conflict with the case by case determination that is mandated, and others were concerned that agencies would simply do this without considering other points.

The final area they talked about was training, and Mr. Paul reported that they all agreed training is essential for all stakeholders on both the process to be followed, as well as the technical aspects of GHG controls. They recommended periodic training on the national, the local, and the state and regional levels. He said that the bottom line is that there must be timely communication on GHG control measures and the process.

Mr. MacLeod thanked Mr. Paul and said that there was one other issue that should have belonged to an "other" issue category. This issue came up in the final days of the work group, so Mr. Svenson will report on it.

Mr. Svenson said that the other issue was to what extent should the permit reviewer envision there may be controls available soon, and therefore could a condition be placed in the permit based upon the future availability of a technology. They were unable to come to consensus, with the two different points of view being that it should not be included in the permit versus it should be included.

Comments from BACT/GHG Report Review and Deliberation

Michael Formica, National Pork Producers Council, commented that the work thus far has been focused on emissions and BACT for the largest emissions in the country. He expressed a number of concerns for both the agriculture sector and the small business sector. What they have come up with is a statement that lower thresholds would be problematic, and would raise significant feasibility concerns for a number of other stakeholders including small business and agriculture. He motioned to include the

language of the statement on page 16 of the report, after the last bullet point, and said that there could be a discussion first.

Gary Jones, Printing Industries of America Graphic Arts Technical Foundation, echoed Mr. Formica's comments, and had been under the impression the report was going to be changed based on the subcommittee's discussion on small business concerns. The concern is that even in looking at the tailoring rule and the EPA's attempt to set the threshold high enough to exclude small businesses, there are still risks. Mr. Jones believes the report has to reflect that small businesses have different concerns than larger businesses in this process. He added that the language Mr. Formica prepared was satisfactory to him.

Mark MacLeod, Environmental Defense Fund, asked for only comments on this particular issue so that it could be resolved and the committee could move on to other general comments.

Jack McClure, Shell Oil Products Company, brought up a comment that came out of a work group about the difference between a small business versus a small source. There must be clear definitions of what constitutes a small business, and how to handle the issue of a small business with a large source or a large business with a small source.

Mr. Jones argued that it should be small emissions, and that the focus should be on the source rather than the size of the industry.

Mr. MacLeod said that the committee currently had a suggestion on the table. He reiterated that Mr. Formica and Mr. Jones said they cannot live with this report as it is, without including this paragraph, and would not want to recommend it forward.

Lisa Gomez, Sempra Energy Utilities, said she supported the language of the statement. She thought that Mr. Jones highlighted two great reasons why the thresholds are important: one being potential to emit and the other being what would happen with a 25,000 ton threshold. She offered a third one, which is the issue of state laws.

Rick Bolton, Center for Toxicology and Environmental Health, commended the work group, yet argued nothing new really came out of it. The report draws on core issues of BACT, but he was anticipating some new, out of the box thinking about GHGs and BACT and how they will be handled. He then asked about the timeframe in which comments from the EPA would be completed and whether or not to expect to have some formal response by the next meeting in June.

Mr. MacLeod first addressed the innovative ideas issue, and assured everyone that there would be ample opportunity to discuss them while they established the scope of Phase II. During Phase I, the objective was to get the stakeholders' recommendations, while the intentions for Phase II is to talk about innovative issues.

Pat Childers, USEPA, said he saw no harm in asking for a response by the June meeting.

Bill Becker, National Association of Clean Air Agencies, followed up on the comment made by Mr. Bolton. They managed to be quicker than their deadline permitted because they understood the importance of creating a useful document that the EPA can take and revise so that the states and localities have the necessary guidance for issuing permits. He wanted to reinforce how important it is that the EPA takes this document, when it becomes approved, and do the necessary due-diligence with it to make it practical and helpful to states. They will have to resolve the issues of non-consensus, and provide examples of what BACT works and what does not, and give more information to the subcommittee.

Mr. Becker's final point was to make the recommendation for bifurcating what the committee really means with regard to a large source that should be affected versus a small source is important, and he would support it. His worry is that those supporting exempting small businesses would turn around and argue against using the Clean Air Act (CAA) to regulate GHGs. It is imperative that those who are supporting exempting small businesses are not going to turn around and also argue against using the CAA to regulate GHGs. He hopes that those who benefit from this will still provide support to EPA to move forward on this rulemaking.

Mr. Formica responded that the comments he submitted to the EPA on the tailoring rule itself did not get into the CAA issue, and dealt specifically with the potential to emit.

Gene Trisko, United Mine Workers of America, had a question about CCS and economics relating back to the statutory definition that BACT is determined on a case by case basis that takes into account energy, environmental, and economic costs. What he is unsure of is why there is not an explicit recognition in the CCS about the relevance of the regulatory regime that is in place in which a permit is being considered, and the impact of the regulatory regime on the price or value of carbon. He argues that the price or value of reducing a ton of CO₂, which would be one of the important benefits of CCS if it is developed, depends on whether there is a cap, at what level the cap is set, and the availability of incentives such as bonuses. All of these factors go into determining the economic feasibility of the application of CCS to a proposed facility. He sees no explicit discussion of this regulatory regime issue, and would like to know if this can be addressed by the subcommittee's consensus position under Economic Impacts on page 15 of the report, the first sentence of which reads "The BACT economic impact assessment considers the ability of the source to bear the cost of air pollution controls." He asked if the subcommittees felt that that sentence adequately addresses his concern about the lack of reference to the regulatory regime and its impact on the economic feasibility of CCS.

Ann Weeks, Clean Air Task Force, responded that the members on the work group were asked to think about what issues were relevant to a BACT determination for GHGs. The question about what new regulation constructs there might be was not on the table for them. No consensus was reached about thresholds for cost effectiveness, and she suggested looking at the work group's detailed reports in order to see the depths of their

conversations. She believes the issue Mr. Trisko raised is beyond the scope of what the work group was asked to consider and discuss.

John McManus, American Electrical Power Service Corporation, added that they were looking at these issues in the context of regulating GHGs under the CAA. If legislation ultimately changes that regulatory scheme, it changes a lot of the views people held.

Kathryn Watson, Improving Kids Environment, said she would like to know where Mr. Formica's proposed language is supposed to go in the report, and what its purpose is. She asked if it were a comment on the tailoring rule.

Mr. MacLeod answered that it was to go on page 16 of the report under "needs of states and stakeholders," as an appendage to the final bullet in the bulleted list. This bullet talks about the assumption for the tailoring rule, as well as the impacts on state and local permitting agencies, so the recommendation from Mr. Formica is to add recognition of impacts on small sources and agriculture.

Ms. Watson asked if this meant that the group would be making the assumption that the tailoring rule and where that threshold is set has an impact on small sources and businesses.

Mr. MacLeod confirmed that this would be true.

Mr. Becker asked for clarification of the statement's intent. He asked if the language is trying to make a distinction that this is about pulling small sources into this regulatory program down to the criteria pollutant sizes, and not seeking an exemption for agriculture.

Mr. Formica replied that this statement is not seeking an exemption under the 25,000 ton threshold. It is just an acknowledgment that if the threshold is dropped below this value it will set off many triggers and concerns for these industries.

John Walke, Natural Resources Defense Council, asked Mr. Formica to clarify if the lower threshold was referring to 100 and 250 the same way it is in the sentence addressing the states, or referring generically to anything less than 25,000 tons.

Mr. Formica asked if using the term "these thresholds" as opposed to "lower thresholds" would be clearer.

Mr. Walke said that using "these thresholds" was much clearer, and would also be in line with the meaning of the prior sentence.

Mr. MacLeod replied that the chairs would do some wordsmithing, and added that Mr. Walke's comment is well taken to make the link between the sentences and values clearer.

Mr. Childers said to the committee that this is more than a pulse check, it is an actual vote. There was no dissent, and he declared that the report was unanimously moved forward to the EPA for full consideration.

Eric Svenson, PSEG, began the Phase II discussion. The subcommittee had a lengthy discussion on what should be involved in Phase II, as well as the work group. On page 4 of the report there is a list of suggested topics, that are not in any way the topics, but they are the start of a list of topics that can be amended to be included in Phase II. He said that they would like to have an opportunity in the next week to take this list, and any other ideas from committee members, and submit all ideas as a conceptual paper to EPA as potential topics. With the timeliness of Phase II and the compressed time schedule, they concluded that in order for work efforts to comprise a product between now and the next CAAAC meeting in June, they only wanted to embark on topics that the EPA felt were useful to developing guidance from the CAAAC. From a subcommittee standpoint, the current list of topics, along with any other formal topics presented by CAAAC members, should be considered by the EPA, who would return their thoughts on the topics. The hope is that they will narrow down the list to topics they feel are relevant and worth pursuing. If the committee still has a topic they cannot leave alone that the EPA did not recommend looking into, it can still be pursued. The main goal is to cull the list of topics worth investigating, in an effort to come up with a feasible task. Although they were not submitted to the full committee, certain members of the work group had created concept papers that had been reviewed during the January working session. He directed a question towards EPA, asking if other committee members make a determination about what should be added should they provide the concept papers to other members in an effort to prevent them from having to re-write about their topics.

Chuck Knauss, Bingham McCutchen LLP, asked for the members who had created a concept paper per the directive of the co-chairs, if they had already gone out to the members of the full CAAAC.

Mr. Childers said that he would make sure all members of the CAAAC had copies of the concept papers. He added that they could prioritize sections from papers they felt were the most relevant.

Ms. Weeks wanted to make clear that while there are white papers available, not all of the six issues have an associated paper and either the subcommittee or full committee decided that these issues needed to be brought to the attention of the Phase II discussions.

Mr. Becker said that what he gained from the subcommittee's discussion was that the Phase II suggestions that had been put into the Phase I report were merely suggestions, and that they would be looked at, but have yet to be agreed upon. The idea discussed by the subcommittee was to seek the EPA's, and especially Gina McCarthy's, advice and see if she had any suggested direction for the committee, and any suggested time frame in which she would suggest completing it. Once that information is transferred back to the CAAAC, they would cull out the ideas that both the committee and the EPA were most interested in pursuing, and begin conducting outside the box thinking to create Phase II of

the report. The reason to have the EPA identify which issues are most important to them is so the committee's work can be relevant.

Mr. Knauss argued that they should not focus only on topics where they knew consensus could be reached. He said that Ms. McCarthy and her team's comments will be very useful to review, but that the committee should ultimately decide.

Elaine Barron, Sierra Medical Center, pointed out that she did not believe that the committee should work on topics selected by the EPA. The committee should not go to the EPA and ask if it is okay to discuss and recommend topics, but rather should have the freedom to choose what they think is relevant and present it to the EPA.

Mr. Childers said that the role of a FACA is to give advice that the EPA will either take or ignore. There is not enough time to cover all topics or ideas, so the decision was to present them to the EPA and have them provide feedback on how we should proceed.

Mr. Wakelyn responded that they are an advisory group, and therefore should give advice. Ms. McCarthy had said that she was excited to hear their ideas during the morning session, and that she wanted to know what the CAAAC considered important to move forward on in Phase II.

Mr. Svenson responded that there was a lot more deliberation about this during the subcommittee meeting and the work group meetings than he had touched on in his introduction. They came to an agreement early on that the effort had to be broken into pieces that resulted in the first and second phases. There has always been discussion about looking at out of the box ideas, and so they decided to create concept papers in November. The work group did not have sufficient time to produce a report for this meeting, but the conclusion was that they have all these ideas and wanted to hear what the EPA thought was meaningful to work on. The predominant point of view that came out of the work group was that they needed to get the EPA's guidance to help in culling down the list.

Mr. Childers said that he does not believe the committee is against what Mr. Wakelyn is saying. At the subcommittee level they decided to move forward a package of papers to the EPA to get guidance on how to proceed on all or some of them. Based on what the group hears back, they would establish the work groups and move forward with Phase II.

Lisa Gomez, Sempra Energy Utilities, said that her understanding from the day before was that there is clear agreement that this body provides advice to the EPA on issues they deem important, but at the same time they have a limited amount of time and are getting tired. She thinks the solution that was proposed yesterday was thoughtful, in that, the white papers will be completed within the next week and then would go to the EPA. The EPA would come back within some period of time with the papers they were most interested in and a deadline for completing the report. These papers would then come back to the work group and they would have their input as well, so that they could add to the EPA's suggestions if necessary.

Stephen Hartsfield, National Tribal Air Association, discussed how CAAAC has always considered the legitimate concerns of everyone. He said they have to remember that there are a lot of issues that are valid, and that CAAAC has always accepted those issues and discussed them, but time is a big consideration.

Susana Hildebrand, Texas Commission on Environmental Quality, said that Ms. Gomez had addressed the point perfectly, that it does not need to be that the EPA tells the committee what to do, or that they come up with it completely on their own.

Kelly Green, Texas Cotton Ginners Association, said that he has not seen the concept papers, so most of what he had learned about the work groups had been since Monday, but he offered his thoughts about going forward with Phase II. In reference to the statement on small business and agriculture, he has a lot of concern that they are trying to cram something into a law that is not meant to be there. Further, there was mention of technologies that were almost ready for being put into a permit, and how to address those. Here he argues that a manufacturer may give a guarantee, but that manufacturer is not on the hook for that permit, rather the company is. If you have a nearly ready technology and put it into permit, and then something happens to that technology, then that company is still bound to the permit. Here the committee needs to be careful that they do not set up harmful situations for companies. The last thing Mr. Green mentioned was that there had not been much talk about biomass, and that is something they are really interested in. His industry produces a lot of biomass, but do not use it for energy. There are a lot of industries out there and places that are biomass capable. If they keep this in mind and handle this correctly, he believes they will provide incentives to companies to use this biomass to produce energy. Yet he also warns that if this is handled incorrectly it will drive biomass usage out of feasibility, so they must think carefully about a solution.

Mr. Svenson directed his attention to page 20 of the report, and said that they were unable to reach a consensus over whether or not it is carbon neutral, and so there was no consensus on how to treat it.

Ms. Weeks added that the two perspectives regarding biomass are pretty well fleshed out in the longer report from the third issue group.

Mr. Svenson wrapped up the discussion by saying that the subcommittee had made a recommendation which was captured in what Ms. Gomez said. The full CAAAC members are encouraged to look at the list and the papers and provide input or add an area that they believe needs consideration in Phase II. One-page papers discussing the various issues will be submitted to the EPA by Tuesday of the week following this meeting, and then in a short time frame the EPA will provide their assessment by looking at these ideas as well as their own ideas. They will come back to the work group and indicate what they think is most meaningful from their perspective, then the work group will decide if that list is too confining or not, and act accordingly.

Clean Air Excellence Awards/Next meeting

Pat Childers, United States Environmental Protection Agency (USEPA), said that the next meeting will probably be the first week of June, when they will also have the Clean Air Excellence Awards. The meeting after that will be in October. They have not done many mobile source topics recently, so they are considering a lab tour in Ann Arbor, Michigan. This goes along with the consideration to have a meeting somewhere other than Washington, D.C. This is the 10th anniversary for the awards. They considered doing the awards in Ann Arbor in June, but members liked last year's location. There will be a Federal Register notice regarding new members, as everyone's membership will expire after the June meeting; membership will either be renewed or a person will be replaced. EPA wants to ensure the members are consistent with the vision and goals document. They are currently looking for new members. EPA is also talking about two potential work groups, which will keep the committee busy. The four issue papers that have been developed for Phase II will be made available. The slides from the meeting will also go on the Web site.

**Clean Air Act Advisory Committee
February 3, 2010
DoubleTree Hotel
Arlington, VA**

List of Attendees

Elaine Mowinski Barron	Sierra Medical Center
William Becker	National Association of Clean Air Agencies (NACAA)
Rick Bolton	Center for Toxicology and Environmental Health (CTEH)
Robert Brenner	United States Environmental Protection Agency (U.S. EPA)
John Campbell	Caterpillar, Inc.
Pat Childers	U.S. EPA
Chuck Collett	National Association of Home Builders (NAHB)
Beth Craig	U.S. EPA
Anthony DeLucia	East Tennessee State University
David C. Foerter	Institute of Clean Air Companies (ICAC)
Michael Formica	National Pork Producers Council
Buddy Garcia	Texas Commission on Environmental Quality
Jack Goldman	Hearth, Patio, and Barbeque Association
Lisa Gomez	Sempra Energy Utilities
Carolyn Green	EnerGreen Capital Management
Kelley Green	Texas Cotton Ginners Association
Stephen Hartsfield	National Tribal Air Association
Steven Lee Hensley	USA Rice Federation
Christopher Hessler	AJW, Inc
Susana Hildebrand	Texas Commission on Environmental Quality
Timothy Johnson	Corning Incorporated
Gary Jones	Printing Industries of America Graphic Arts Technical Foundation
Mark MacLeod	Environmental Defense Fund (EDF)
Janet McCabe	U.S. EPA
Gina McCarthy	U.S. EPA
Jack McClure	Shell Oil Products Company
John McManus	American Electric Power
Jeff Muffat	3M
Robert O'Keefe	Health Effects Institute
Steven Page	U.S. EPA

Bernie Paul	Eli Lilly
Eric Svenson	PSEG
Eddie Terrill	Oklahoma DEQ
Eugene Trisko	United Mine Workers of America
Peter Tsirigotis	U.S. EPA
Valerie J. Ughetta	Alliance of Automobile Manufacturers
Phillip Wakelyn	National Cotton Council
John Walke	Natural Resources Defense Council
Kathryn Watson	Improving Kids Environment
Ann Weeks	Clean Air Task Force
Anna Marie Wood	U.S. EPA