

Clean Air Act Advisory Committee

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Almas Temple

Washington, DC

Clean Air Act Advisory Committee Full Committee meeting

Welcome/Opening Comments

Rob Brenner, U.S. Environmental Protection Agency (USEPA) Office of Air and Radiation (OAR), thanked everyone for coming to the awards ceremony on July 7th. He also touched on some of the rules being developed in OAR. Each rule requires a well thought-out strategy and it becomes challenging when there are an incredible number of big efforts underway at once.

Mr. Brenner introduced Gina McCarthy, OAR Assistant Administrator, who has given USEPA an answer for how to deal with these challenges and has provided USEPA with a strategy for every one of those rules. Once a plan is in place, there is also no better communicator in OAR than Ms. McCarthy.

Ms. McCarthy began by welcoming the Clean Air Act Advisory Committee (CAAAC) members. She thanked everyone for their work and partnership on the committee. She continued by discussing the awards ceremony and thanking all of the members who reviewed the projects and everyone who attended the ceremony. Ms. McCarthy then provided an update to the committee members on current initiatives at USEPA. There are a range of rules and issues to address and USEPA is trying to provide a commonsense strategy to prioritize all of those efforts. It is incredibly important to look back not only at the successes of the Clean Air Act (CAA) but also to identify gaps and areas in which it has yet to provide public protections. One of these areas is the utilities standards. This is a very important rule on which USEPA needs to focus and get right. Some of the largest problems still remain, in particular toxic substances, which pose significant public health risks. The rule is based on a tremendous amount of research and thoughtfulness, and was analytically rigorous. USEPA also engaged in a public process that was about as active as possible, including holding three public hearings. This gave the public an opportunity to tell USEPA that what they do is important and that it is important for finalized rules to stand the test of time. Ms. McCarthy thanked everyone who worked on the cost benefit analysis for helping USEPA articulate the costs and benefits as well as any government has ever articulated costs and benefits.

One of the biggest current rulemakings is the mercury and air toxics standard, which should be finished in November. The fuel economy label is another rule that is just as contentious as the toxics rule, simply because many individuals have opinions on what information the public

needs. Ms. McCarthy stated that she is incredibly proud of the label that came out of the process. The process was tremendously robust, with 30 focus groups, expert panels, and electronic surveys. In the end, the labels generated are a refreshing and wonderful way to articulate the impacts associated with purchasing a car and what that purchase means for clean air and climate. The labels provide an opportunity for people looking at new cars to determine what they need for their driving habits and the car's environmental footprint.

The transport rule will also be finalized at the end of June. This rule is a huge win for USEPA because it gives them the opportunity for a gigantic do-over, but it will also allow them to credibly, scientifically, and legally define a model and provide a process so they can continue to do this as the National Ambient Air Quality Standards (NAAQS) change.

Administrator Jackson has also indicated that she will be moving forward with the new ozone standards at the end of the July. As this rule comes out, USEPA will also provide an implementation rule, which is designed to provide early information so stakeholders can understand exactly what the standards mean for their groups.

USEPA is also currently working on the particulate matter (PM) NAAQS with a goal to finalize these by the end of the summer. This rule, similar to the transport rule, has one of the best cost-benefit analyses, meaning that the rules bring in significant public benefits for the cost.

Ms. McCarthy also discussed the boiler rules, particularly the boiler MACT (Maximum Achievable Control Technology). There were many opportunities to comment on the boiler MACT rule, which is a struggle for USEPA because they put out the rule without having as much information as they would have liked. They are currently developing a strategy to move the rule forward and believe it will be up and running in full force as soon as possible. USEPA is aware that there needs to be another round of public comments to address the legal underpinnings and technical aspects associated with the rule, and they have challenged industry to provide more information. Ms. McCarthy is very confident that the rule will deliver the public health benefits it was designed to afford. USEPA will do this in a way that allows for the continued sale of projects and will hopefully give them the opportunity to work with the U.S. Department of Energy (USDOE) and the U.S. Department of Agriculture (USDA) as well. USEPA wants people to give serious thought to the benefits of buying new, more efficient boilers. It is important to recognize that, if this goes well, they will have more efficient industries and more efficient institutions. It is incredibly cost effective to replace a very old boiler with one that is not only clean, but also energy efficient. USEPA is moving forward with this rule as quickly as possible.

There are also a number of initiatives in the works when it comes to greenhouse gases. There is a new light duty vehicle rule coming out in July. USEPA is also establishing greenhouse tailpipe

standards for heavy-duty vehicles, which is the first time they have regulated the heavy-duty sector. All of these standards are developed on the basis of existing technologies, looking at opportunities for aerodynamic designs that will increase efficiency and lower greenhouse gases. This is an exciting first step, but USEPA is already looking at what is coming next. The next light-duty vehicle regulation is already under consideration. This regulation is for 2017-2025, and USEPA is very excited to be working with the U.S. National Highway Traffic Safety Administration in understanding the costs of the rule.

USEPA has also been looking at the greenhouse gas reporting rule, which will begin in September. This rule will be another big eye opener for individuals looking at public data, but also for the facilities themselves. USEPA will continue working on this rule in July as the next range of businesses comes into the system.

USEPA is also developing a greenhouse gas new source performance standard (NSPS). The one they are currently looking at is for utilities, and they are working to make sure the obligations associated with carbon pollution are known, and that these are considered as a package with other standards when companies are considering investment strategies. USEPA hopes to finalize the standard for utilities by July and will be proposing a similar rule for refineries in December.

Ms. McCarthy then opened the floor for questions and comments.

Janice Nolen, American Lung Association, emphasized that meeting the standards for ozone and PM is very important. She also asked about the federal radon issues and what action USEPA is taking on addressing those.

Ms. McCarthy responded that the Indoor Air Office is trying to think of different ways to engage the radon issue and have been in the process of developing a radon action plan for the federal government that will generate more action. They hope to unveil that action plan at the healthy homes conference toward the end of June. USEPA's goal is to also bring other agencies together to make them more responsible for the radon issue.

Gary Jones, Printing Industries of America, asked for clarification on the ozone standard implementation issue regarding what happens to the old standards once the new standards and implementation are released. He asked whether the new implementation program will address issues revolving around how to deal with existing standards.

Ms. McCarthy responded that the implementation plan will address implementation of the new standards, statutory obligations, anti-backsliding issues, how to transition to the new standards, and other issues. It is a proposed rule, so USEPA will also be taking public comments on whether they failed to address any major issues.

Ann Weeks, Clean Air Task Force, expressed public concern for a broad exemption of biomass for three years fearing it will create an incentive for a rush burning of whole trees for the development of facilities that are not carbon neutral.

Ms. McCarthy responded that the agency is currently reading through a study looking at this issue, which will be used as part of the basis for how they look at biomass moving forward. They are aware that not all feed stock is equal and that there will be a significant challenge to translate that information into a regulatory structure. Based on comments USEPA has received, they understand that this is an area of great concern, but USEPA will not be giving any facilities a free pass from the CAA.

Eddie Terrill, Oklahoma Department of Environmental Quality, commented that it is extremely important for the ozone standard and the implementation plan to be released at the same time and for education to be provided about new standards.

Julie Simpson, Nez Perce Tribe, commented that she was interested in an update on the tribal new source review (NSR).

Ms. McCarthy responded that USEPA is reaching the finish line on the tribal NSR and that they have been plugging away to make sure it is finalized as quickly as possible.

Margaret Gordon, West Oakland Environmental Indicators Project, asked how the CAAAC is interacting with the U.S. Postal Distribution Centers in terms of postal trucks retrofits. Ms. Gordon also requested a contact for someone in Region 9 who deals with postal services.

Ms. McCarthy responded that she did not have information on that specific issue, but that she would find out and get back to Ms. Gordon.

Mr. Brenner added one last housekeeping item by stating that this would be his last opportunity to lead the CAAAC meetings because he will be retiring from his current position in July. He spoke briefly about his time working for USEPA on CAA issues. After retiring, he will spend his time working out of an academic institution, working with people to help think through how to best proceed on these issues. He will also spend time working with programs that deal with air toxics in communities.

Ms. McCarthy, Bill Becker, Eric Svenson, Peggy Shephard, Jeff Muffatt, Dave Foerter, and Janet McCabe all provided comments and examples Mr. Brenner's capabilities and valuable contributions to the USEPA and the CAA throughout his tenure.

Air Toxics Program Discussion: Prioritizing Needs and Resources

Mr. Brenner began the Air Toxics Program discussion by introducing the presenters: Lisa Connor, reporting on behalf of Steve Fruh, in the Office of Air Quality Planning and Standards (OAQPS), and Jenny Craig, of the Air Policy Office, both of whom have both been working on a number of toxic and technological related issues.

Ms. Connor, USEPA, began by explaining she would be filling in for Mr. Fruh, who was unable to attend the meeting. The objective of the presentation was to provide the committee with an update on the Air Toxics Program. When Congress passed the CAA, it asked that a list of air toxic pollutants be drafted by USEPA. That list comprised of eight air toxics and was accompanied by seven main regulations. The 1990 CAA Amendments redefined the air toxics program resulting in a list totaling 180 classified pollutants and 170 different emission source categories. USEPA then created a set of MACTs for each of those source categories. The Amendments also require that residual risk and technology be re-evaluated and reviewed every eight years. Other important toxic provisions include: integrated urban air strategy, technology and fuel requirements to reduce mobile sources pollution, and requirements for adding and delisting air toxics.

Currently, the Air Toxics Program is focusing on voluntary, mobile, stationary, and indoor air. Recently, USEPA has tightened regulations on light-duty vehicle idling standards, provided indoor air quality tools for schools, and helped implement school air quality monitoring systems. USEPA has also had showed renewed interest in funding for voluntary community action by providing ten million dollars to 64 communities.

Ms. Connor then discussed ways to continue to address risks of air toxins in an era of declining budgets. USEPA is trying to reorganize and prioritize efforts to reduce air quality problems in at-risk communities by prioritizing more robust risk assessments, addressing air toxins and criteria pollutants and making improvements to the regulatory process for key industrial sectors, through creation of a wide array of regulatory and monitoring assessment rules, and by investigating and identifying characteristics that comprise at-risk communities. National emissions inventories have become increasingly open to the public and are more nimble and accurate, which help to identify communities at-risk in order to take action to alleviate the air quality issues. USEPA has also been improving public outreach and awareness through the use of a variety of different tools. For enhanced emission monitoring USEPA has made greater use of established remote measurement approaches such as optical fence-line monitoring. To enhance public transparency USEPA has been working on achieving accurate, up to date, and easy to access emission inventories. USEPA also has neighborhood monitoring programs such as the Community-scale Air Toxics Monitoring Grant Programs.

In terms of enforcement, USEPA is using monitoring data to identify at-risk communities and specific emissions sources. These tools have allowed USEPA to target priority categories of emission sources, utilize more cost-effective sector-based approaches to rulemaking, reduce air toxics through voluntary programs, improve data collection, provide tools to communities to engage more effectively in participatory rulemakings, and coordinate compliance and enforcement efforts towards priority sectors in areas of concern.

Not surprisingly, USEPA has found that air toxic risks are highest in urban areas. USEPA utilizes geographical information system (GIS) software to map both areas of high air toxic concentrations as well as areas that are in nonattainment for criteria pollutants. The map showed in the presentation overlaid areas of nonattainment over county level emission inventories. The sections of the country in dark blue illustrate areas of higher cancer risk. The National emissions inventories have also been important to indicate different types of sectors that are contributing to toxic air emissions. When analyzing these inventories, certain categories are highlighted when weighted for cancer risks such as: chemical manufacturing, consumer and commercial products, power plants, and some metals manufacturing. When viewing these emissions without weighting specifically for cancer one can see other types of sectors that contribute to air toxins including: residential combustion, boilers, and engines (majority from agricultural production).

Giving the consideration to risk as well as socioeconomic demographics, USEPA has targeted the following high priority categories that affect low income and minority communities: chemical manufacturing, refineries, oil and gas industries, utilities, iron and steel production, and cement manufacturing.

Ms. Connor continued the presentation by breaking down each targeted industry. She began with the petroleum and refinery sector by describing them as “mini-cities”. Regulating such compounds is difficult and often requires enforcing up to thirteen different regulations. Therefore, it is important from a regulatory perspective to address the site in a more holistic manner and identify the largest risk areas together as opposed to every point of emission separately. USEPA has several MACTs and NSPSs coming out in December to tackle these issues. They take an integrated approach to the different emission categories and have been drafted with better data and proper scope of rulemaking to address both greenhouse gas emissions and environmental justice. USEPA will also be looking into conducting more remote sensing and fence line monitoring more in the future. These are good methods to determine if communities around the emission points are exposed to greater risk. It will also provide a lot of information to agencies and facilities and allow them to identify these issues and correct them more quickly.

The presentation continued with a discussion of the chemical sector. USEPA has attempted to normalize its approach to different emission points by concentrating on areas that have high levels of carcinogenic emissions.

Conversely, iron and steel are quite a bit different from the refineries that have many emission points. Iron and Steel manufacturing is more integrated and therefore have fewer points of emission. USEPA is aiming to have standards for steel rolled out by the end of the year.

In terms of utilities, the comment period for mercury and other utility related air toxins will end in July with the final ruling scheduled to be completed in November. The goal of which is to reduce mercury emissions by 90 percent.

Lastly, USEPA plans to take action on oil and gas before the end of the year. Oil and gas typically occur in more remote locations and therefore present a unique challenge to regulators as they can sometimes be up to three hundred miles from major human communities.

Ms. Connor then opened the floor up to questions and/or comments. She specifically asked to hear the committee's concerns, ideas of areas to focus efforts, what efforts have been most effective, and how to better work with CAAAC to attain these goals.

Joy Wiecks, Fond du Lac Reservation, suggested that tribal areas would benefit greatly from additional training in these types of permitting, rulemaking, and environmental assessment areas.

Ms. Connor agreed that for tribal communities as well as other communities these types of trainings would be beneficial.

Kathryn Watson, Improving Kids' Environment, wanted the speakers to expand on children's health impacts in terms of the oil and petroleum sectors and if fenceline monitoring would be a part of future rulemaking.

Peter Tsirigotis, USEPA, said in previous rulemakings the question of whether fenceline monitoring was appropriate did arise. At the time it was felt that using it would not be useful because the technologies needed to be improved. However, now it is seen to be integral to understanding health issues because emissions affecting a community could be originating from a multitude of different facilities. The point of the fenceline monitoring is to get to a point where USEPA can require it be utilized at all facilities. It is very important to both children's health and environmental justice concerns that people in the surrounding communities have a sense of what their air quality is and judge the accuracy of the emission inventories.

Ms. Watson suggested that it be part of a MACT analysis and encouraged USEPA to pursue this seriously.

Ms. McCarthy responded that USEPA has done a lot of work on getting the technology ready and building a regulatory system that is accurate and cost effective. She stressed the importance that technology reviews rely heavily on estimates of technologies' capabilities and constantly update those assessments.

Mr. Neal commented that the iron and steel industry have found in integrated mills is that there are some inaccuracies in terms of identifying emission sources at the facilities. The industry is continuously working to identify these emission sources. Interestingly, what has been discovered is that in many Midwestern cities there have been issues with fine PM, coinciding with the presence of integrated mills, and there is a good chance they are interrelated.

Mr. Brenner encouraged committee members provide suggestions on how regulators and regulations can be more effective.

Peggy Shephard, We Act for Environmental Justice, inquired about requirements for diesel retrofits.

Ms. McCarthy responded that the CAA does not give the same latitude for existing vehicles as it does to new vehicles. USEPA is working on identifying pathways forward and recognizing that direct implementation of upgrades can be extremely costly.

Mr. Tsirigotis added that USEPA regulates the bulk station of gasoline and diesel under the stationary source program, but do not regulate idling vehicles. However, USEPA can regulate loading and unloading of gasoline at terminals onto trucks and requires vapor minimization approaches.

Ms. Shephard, in response asked if when trucks idle, their exhaust is vented into the community. Ms. Shephard was doubtful that these vents have environmental controls.

Mr. Tsirigotis responded that USEPA has no authority under the CAA or Stationary Source Program to regulate idling vehicles in that capacity.

Ms. Shephard asked if these idling trucks inside buildings that vent into the surrounding community could be regulated like a facility rather than a truck.

Mr. Tsirigotis responded by explaining a general rule: if it has wheels on it, it is not considered a facility. However, the one exception to this rule is if it has wheels but never moves it is

considered integrated and can be regulated. That being said, in this example with trucks moving in and out of a facility, USEPA does not have regulatory authority.

Ms. McCarthy added that USEPA is focusing on these types of ‘gaps’ and have identified many areas, including transportation centers. However, a facility that is a conglomerate of mobile sources is still difficult to regulate under the CCA. Therefore, USEPA has been focusing on diesel retrofit voluntary programs as a way to work on emission reductions.

Ms. Simpson commented that the success of the toxic efforts on tribal lands is attributed to a grant from USEPA for tribal the air monitoring center. The grant was for short-term monitoring of mercury and other toxics. This monitoring was very important to the tribes to get a grasp of toxic issues on the lands because many people still live subsistence lifestyles following the hunting, fishing, and gathering traditions.

Mr. Brenner agreed that rural air monitoring on tribal lands is important. Lisa Connor and Jenny Craig will take that issue back to USEPA and investigate ways to integrate this evolving air toxic strategy.

Robert O’Keefe, Health Effects Institute, thanked the presenters and stated his support for a hierarchical sector approach. It is important to look at highest risk and emitting sources. Secondly, the Health Effects Institute has a series of studies on air toxic hotspots in cities around the country. It would be interesting to investigate how to define “hotspot”, because what was found is that while levels in some places are elevated, they are not too much higher than the ambient air. This could help in the prioritization of what USEPA is doing in terms of targeting “hotspots”. Currently, the Health Effects Institute has a call for proposals for studies of the oil and gas sector, to evaluate whether verification of reductions occurred and disputes have decreased. Lastly, creating a list of measures of success may be useful.

Mr. Brenner responded that Jenny Craig has been heavily involved with toxic benefits works and opportunities to work with the Health Effects Institute could prove beneficial.

Mr. Svenson also thanked the presenters for a good presentation. He continued with asking clarification on slide 5, which illustrated the trajectory of toxic reductions. Mr. Svenson had expected that with the new programs there would be a great drop off in the chart.

Ms. Connor responded that these figures were calculated before the new rules were in place.

Mr. Svenson thought the new MACT regulations are long overdue. He continued by stating the rule that came out was well done and has more flexibility built into it than industry had expected. Also, the compliance timelines laid out are reasonable. A recent report was issued sites a few

members of the energy sector, from coal based companies to natural gas electric generating companies, and CEOs, indicating that they believe they are well positioned to meet the anticipated requirements coming forward. There is a lot of disinformation surrounding the political scene. Speaking as a member of the sector, Mr. Svenson applauded the good work being done on this front and said that he will support these efforts going forward.

Bill Becker, National Association of Clean Air Agencies, asked to go back to slide number 9 for clarification. He indicated there is an unacceptably high and pervasive problem with air toxics in the United States. When state and local agencies monitor air quality it indicates unacceptably high levels of benzene. It is possible to achieve reductions for less than one cent per gallon of gasoline to tighten regulations. If USEPA is serious about these issues, regulations will be needed, and will most likely get reductions over a short period of time.

Mr. Brenner asked about the latest version of the toxic pollutant list.

Ms. Craig responded that USEPA currently does not have a combined list, but instead have another map that is very similar to the one cited by Mr. Becker, which describes the non cancer causing substances.

Ms. Gordon suggested that the committee consider the cost of health care as a result of ambient air quality for those without health insurance or easy access to good health care. When these figures are converted into dollar amounts, people tend to take notice. She suggested this is where partners in the public health sector or from Center for Disease Control can help in identifying air toxins.

Mr. Brenner thanked Ms. Gordon.

Dave Foerter, Institute of Clean Air Companies, suggested that more up-to-date graphs and future projects would be helpful. He also added, on behalf of the Institute of Clean Air Companies, his support on the industrial water MACT ruling as well. He suggested that USEPA not forget about source emission testing as well in favor of only the ambient air testing. It can be the case where an industry tries to decrease one set of pollutants, such as air toxics and in return it may lack on reductions in another pollutant category, like greenhouse gases. When tradeoffs are involved industry must make a choice of reducing climate change inducing pollutants or those that can have negative impacts on public health.

Rob Kaufman, Koch Companies Public Sector, pointed out information contained on slide 15, with the success of refineries implementation of fence line monitoring, which was one of Koch Companies' refineries in Corpus Christie, Texas. The graphic on Slide 10 despite refineries listed as the number one priority for emission reduction, when evaluating emissions and

weighted emissions for both cancer and non-cancer effects, refineries are not listed on the latter two columns. He inquired why USEPA was putting a stronger effort into cropping production and residential combustion which dominated the non-cancer related emissions and why USEPA is not looking more closely at consumer products.

Mr. Tsirigotis thanked Mr. Kaufman for the successes at the Corpus Christie project. He continued by clarifying that the reason for Mr. Kaufman's assertions is that a high number of refineries are co-located with chemical plants. There are many issues with refineries, including the inaccuracy of emission inventory information. The inventory development approaches may not be accurate as they pertain to complex facilities. There are a number of consumer projects, initiatives, and regulations that have been done by looking towards the production side. USEPA usually does not regulate the users and for some things like crop production USEPA works with other federal agencies and with states to find more innovative ways of mitigating these sources rather than direct USEPA regulations.

Mr. Brenner alerted the group that Peter Tsirigotis, and Jenny Craig needed to leave for a meeting, but he and Lisa Connor would bring back any additional questions, comments, or concerns.

Stacey Davis, Center for Clean Air Policy, inquired about potential partnerships with DOE and if such a partnership would be accompanied with funding.

Ms. Connor replied saying there were discussions about partnering with USDOE, but was not certain as to what extent there were discussions concerning industrial modernization. Ms. Connor said she would bring that suggestion back to the group that develops the boiler regulations and will have them respond to Ms. Davis' question.

Mr. Brenner added that several committee members have suggested creating partnerships with other agencies.

Ms. Nolen suggested the potential for partnerships involving the residential combustion component of the non-cancer toxics.

Wanda Phipatanakul, Children's Hospital of Boston, seconded Mr. Brenner's comments and asked if there is data on how outdoor exposure affects indoor air quality. Ms. Phipatanakul suggested that the committee consider other strategic partnerships with people or organizations who conduct research into sub-populations' thresholds for acute health outcomes.

Ms. Connor, responded it would be necessary to check with the USEPA Risk Assessment Group for information indoor air quality. She added that the National Air Toxic Assessments do discuss

similar issues of toxic oncology and identifying specific health impacts for the elderly population as well as for the child population.

Lori Stewart, USEPA, mentioned the Clean School Bus USA Program by saying one of the most effective methods of public outreach was the distribution of materials to schools, which greatly reduced the idling school bus problem.

Mr. Brenner then asked that there be a summary of what was heard today.

Ms. Wiecks had two things to add to the discussion. The first was to follow up on the bus idling problem. On the Fond du Lac reservation this has been a problem as well and suggested installing heaters on busses. Second, she followed up on the air toxic monitoring for tribal areas by stating a need for additional support to implement long-term air monitoring programs.

Ms. Gordon suggested a need to separate industry from residential developments. Since there are no land use regulatory issues in the CAA there are crossovers of risk and exposure for people living close to industrial facilities. Lastly, she inquired whether the data presented was actual data or a model projection.

Ms. Connor responded that the data came from the national emissions inventories taken by the states, which typically have a rigorous quality assurance process built into it.

Ms. Gordon brought up the issue of trucks idling inside facilities, which is particularly bad in and around port areas because once inside the terminal there are no controls or enforcements placed on these vehicles.

Mr. Brenner summarized the reoccurring issues discussed during the session. First, there was a general sense of how an integrated toxic strategy works well for the advisory committee but there must be an effort to addressing the gaps. Second, there was a question in relation to quality of fuels. Third, the idea of forming strategic partnerships with other federal agencies was discussed and many had good suggestions on which topics to begin discussing. Fourth, there was some discussion about how best to engage the public in terms of education and outreach. Lastly, Mr. Brenner discussed the need to identify good and accurate measures of success for upcoming programs.

Mr. Brenner concluded the discussion by thanking the committee for the insightful and reflected comments.

Meet a Clean Air Excellence Award Winner- Carbon Yeti Program – City of Bellevue

Jennifer Kaufman, Conservation & Outreach Program Administrator for city of Bellevue Utilities, was one of the recipients of a Clean Air Excellence award and was invited to speak in front of the entire committee about her award winning project. Ms. Kaufman expressed what a huge honor this award has been, and said that she never thought she would be presenting to a group like the CAAAC. She described her work in the conservation outreach group and explained that she runs the school outreach program, and also does some small pollution prevention. She then introduced the carbon yeti and the city of Bellevue, Washington to the CAAAC.

Bellevue is located just east of Seattle, and is the fifth largest city in Washington State. It serves as the metropolitan center of the east side of the state, and is only a short drive from the Cascade Mountains, wetlands, lakes, and ponds. Demographically, 40 percent of residents are minorities.

The Carbon Yeti Program was created in response to growing concerns about climate change. In 2007, the Mayor of Bellevue signed the US Mayors climate protection agreement. Bellevue then developed an ambitious environmental stewardship initiative. Ms. Kaufman said she was hired on earth day in 2007, and was told to create an emission reduction program. At the same time the concept of a carbon footprint was becoming very popular. She compiled a long list of actions that members of the community could take to reduce their carbon footprints. The final piece of the puzzle was adding the pledge element. She explained that a pledge is a social marketing tactic that is effective because it increases the likelihood of people to follow through with that to which they sign their name.

Their goal was to create a youth-focused resource education program about small steps kids could take their homes to reduce their personal carbon footprint. The pledge cards served the dual function accountability as well as provided a monitoring tool for the team to know the number of people involved in the initiative. The Carbon Yeti is a mascot and a learning tool. He had been oblivious about how much of an impact he has, but is taking small steps to reduce his footprint. They created many yeti promotional giveaways for kids such as bendy rulers, temporary tattoos, and silly bands. Since his debut, the yeti was asked to attend the Nissan leaf launch, an event at the University of Puget Sound, and many others around the state.

The second objective was to use social marketing to inspire behavior change. They created a smaller footprint pledge book, which recipients check off the actions they already do and also mark what they are planning to do. . Initially they were utilizing mainstream media outlets, but then over the years it became clear to head into social media. The Yeti has a facebook page, and they have hired a company to create and manage the interactive yeti house with embedded games and lessons. They did an initial soft launch of the house, and now it has been online for about four months.

Ms. Kaufman spoke about the challenges they faced during the implementation of their program. She mentioned the difficulties involved with describing the concept of a carbon footprint to children. She admits that this has become easier with time and experience. Measuring behavior change is also a challenge. She believes that winning the award will help further their mission throughout the state.

In the future she hopes to dive deeper into social media, via facebook and videos on YouTube. They are also going to improve the online version of the pledge card. This program has continued to evolve, and they have even created a dog named snowball that is a friend of the Yeti and is teaching lessons about pet waste.

Ms. Phipatanakul said she absolutely loves this project. She commended Ms. Kaufman for having such an innovative fun idea, and asked if there were any plans to expand into other states.

Ms. Kaufman replied that they absolutely support people borrowing the idea and running with it, she would love it if the program went national.

Mr. Brenner commented that he suspects Ms. Kaufman will be getting many calls in the near future.

Ms. Wiecks said that she love the silly bands and wonder if she could have the information about where they got them.

Ms. Kaufman said she can provide that information, and asked anyone interested to email her for more details.

Subcommittee Report Outs - Permits/NSR/Toxics/BACT Work Group Joint Meeting , Mobile Sources Technical Review Subcommittee Report Out

Anna Marie Wood, USEPA, began by summarizing the previous Permits/NSR/Toxics/BACT subcommittee meeting. During this meeting, the subcommittee focused on permitting under the CAA. They discussed the need for earlier involvement in the permitting process. Mr. Brenner summed up the presentation by asking for input from the CAAAC and the subcommittee in terms of process and permit-related actions, and some very good ideas came from that discussion.

Mr. Brenner followed up by stating that this effort is part of a broader agency effort, Plan EJ 2014, to look at how to incorporate environmental justice concerns in the work USEPA does across the agency, not only within OAR. He then asked for committee members to provide

examples or ideas of leaders who could be involved in thinking through the best ways to do permitting, send Mr. Brenner a note so USEPA can take advantage of those individuals.

Ms. Wood continued summarizing the subcommittee meeting stating that she provided an update on significant CAA actions currently underway. The subcommittee also tried to identify areas or issues that they would like to discuss or provide ideas on moving forward. Some ideas include:

- Addressing concerns regarding the delay of permits due to the new NAAQS, particularly involving modeling and implementation issues.
- Addressing issues with ports, such as electrification issues happening at ports, which issues involving ports are covered by the CAA, and what emissions reductions are being achieved at ports.
- Addressing issues involving NSPS, such as what NSPS USEPA will focus on moving forward, whether ozone NSPS should be revisited, whether NSPS should be considered for greenhouse gases at the same time the greenhouse gas permitting is being reviewed, and whether the agency should look at NSPS for greenhouse gases in a more holistic manner.
- Shifting the focus of the subcommittee away from presentations and toward a dialogue driven meeting based on certain issue areas that would be notable to discuss.

The subcommittee did not identify specific areas on which they would focus, but Ms. Wood will take her notes from the discussion back to Bill Harnett and they will discuss how to incorporate some of the ideas into upcoming meetings.

The group discussed the need for an additional co-chair (possibly additional co-chairs). Ms. Wood collected a list of names and if other CAAAC members have suggestions, they should submit names to Pat Childers.

Phillip Wakelyn, Texas Cotton Ginners' Association, also noted that the group suggested discussing the issue of modeling versus monitoring in determining non-attainment.

Ms. Gordon also recommended that USEPA partner with public health departments and air quality departments to train residents, stakeholders, and businesses on how to carry out the permitting process.

Transitioning I/M workgroup Final Report Review and Vote to Move Forward to USEPA

Gene Tierney, USEPA, opened by stating that the transitioning I/M workgroup was established a few years ago and provided a report on performing inspections and maintenance programs now

that most vehicles are equipped with diagnostic systems. The workgroup is currently focusing on remote OBD I/M, and most of the work on this topic was done over conference calls.

Remote OBD I/M has become a lot easier lately and has substantially reduced the cost of inspections. The use of telematics is emerging and may make inspections even easier, quicker, and cheaper. Telematic devices wirelessly transmit the status of OBD systems on a continuous basis. This offers a number of benefits, such as allowing for more rapid correction of problems and greater emission reduction benefits. Telematics also reduce cost because drivers no longer need to go to a specific location to be tested. Some states have already begun using telematics and there is currently a lot going on in this area. Remote OBD uses essentially the same kind of technology as easy pass.

The guidance document provides states with technical guidance on how to put together a request for proposals as they upgrade their I/M program, and goes through all of the issues associated with a remote I/M program. In order to set up a remote OBD program there are a few different technology paths, but this report is designed to be technology neutral. Much of the existing fleet will most likely need to be retrofitted with a telematic device, but they are fairly cheap (around \$50).

In order to design a system for continued monitoring, 80 percent of vehicles should communicate with the network at least every two weeks, and the remaining 20 percent should communicate with the network at least one per month. However, this will be a voluntary program, so some people can choose to participate with OBD while others can choose to not participate.

There are also other technical aspects related to how to run the system. The subcommittee determined five different key events that might trigger action on the part of the state. When the malfunction indicator light in the car turns on, that would trigger an email message (or something similar) to drivers notifying them that the light turned on and that they should have repairs. After that notification, nothing happens, the system simply continues monitoring and hopefully the motorist will get the repair. The system will also monitor changes in fingerprint data (this required drivers to be fingerprinted initially), and whether the telematic device is disconnected.

The system must be able to notify motorists if events occur, and it needs to be able to tell whether the vehicle was repaired. After a vehicle is repaired, the vehicle's codes are cleared and the vehicle needs to be driven before the codes are reset. One problem is that the monitors are sometimes never reset; this is something they hope to address through a continuous monitoring system.

The main goals of the compliance and monitoring system are to ensure owners take appropriate action when certain events occur, prevent fraud, verify adequate network coverage and program

effectiveness, quantify benefits of the program, and take corrective action for shortcomings and inappropriate activities. They will work also with states to help design a program for specific emissions reductions.

There is a lot of technical information in the report. The report specifies a structure and format for data capture, security and tampering provisions, standard communication protocols, acceptance criteria, and various reporting requirements. All of these are standardized so that states have a standard process to follow.

Don Neal, Calpine Corporation, commented that one of the award winners in the ceremony developed a program for misuse of I/M programs. It sounds like this could eliminate those problems.

Mr. Tierney responded that they envision this as a voluntary program. There will always be some people that will go to extremes to avoid regulations, but this will be a starting point.

Karin Ritter, American Petroleum Institute, asked about the benefits of remote OBD versus traditional I/M.

Mr. Tierney responded that they did a fairly in depth cost analysis for remote OBD, but because there is so much development in the area, his office is thinking about redoing the cost analysis based on what they have recently learned.

John Paul, Regional Air Pollution Control Agency, asked how areas should deal with backsliding issues if they want to move from the traditional program to this program.

Mr. Tierney responded that between 80 to 85 percent of vehicles operating on the road now are OBD equipped, making the new program doable. His group would also be happy to work with states to develop a strategy.

Mr. Childers then explained that the CAAAC had to pass the report in order for it to be submitted, and asked member to raise their cards if they do not wish the report to be passed. No cards were raised so report was passed.

Update from the CAAAC Multi-Pollutant Workgroup

Keith Mason, USEPA Office of Policy Analysis and Review (OPAR), began the discussion about multi-pollutant sector-based approaches. Ten years ago there was an effort to incorporate greenhouse gases into the national emission inventory. The sector-based approach established criteria for hazardous as well as greenhouse gas emissions within the same inventory. The idea

was that integrating and harmonizing regulatory schedules into some of the major industrial source categories would make regulating more effective. Recently, the NSPS for the cement manufacturing industry has received numerous legal challenges. The oil, gas, and refinery sectors all do things slightly differently than traditional stationary sources. Additionally, the office has been reorganizing into sector teams to better serve the mission of protecting human health and the environment, which is particularly important in an era of declining budgets.

The workgroup conducted two one-day roundtable discussions to explore the attributes and investigate the opportunities and challenges of moving towards a multi-pollutant system of air pollution regulation of stationary sources. The discussions tried to cover topics like risk reduction, environmental justice, environmental protection, and operational and compliance flexibility and implementation. Specific topic areas included: timing and sequencing of regulations and requirements, source definition and scope of applicable requirements, monitoring and data, reporting and record keeping, emissions control technology and approaches, energy use and efficiency improvement, and community-focused strategies. The emerging overall theme of the workgroups was how best to integrate clean air and clean energy investments while reducing greenhouse gases.

Mr. Mason expanded on the community focused strategies as being both the starting and ending point for these projects. There was a strong interest in identifying the benefits and challenges of multi-pollutant sector-based regulatory approaches.

Mr. Mason presented four opportunities and challenges that a multi-pollutant sector-based approach can realize. The opportunities included: harmonized regulatory schedules; streamline monitoring, record-keeping, and reporting requirements; the use of new monitoring technologies; and identifying and quantifying emission reductions that may have co-benefits. The identified challenges included: enforceability or legality of integrated approaches within the boundaries of the CAA; trade-offs or balancing of local, regional, and global environmental goals; the permitting and implementation guidance development needing to take place prior to, rather than after, integrated rulemakings, and community level involvement prior to and during specific strategy and regulatory development.

The workgroup is planning on recommending a new guidance be developed along with the accompanying rulemaking with community participation prior to as opposed to during or after development.

Mr. Mason closed his presentation by informing the committee that the recommendations made by the workgroup will be drafted into a report and be formally presented to the CAAAC Subcommittee during the fall 2011 meeting.

Ms. Nolen asked if the iron, steel, and chemical industries were the areas of focus or the only industries with whom the workgroup met.

Mr. Mason responded that the report will not be industry specific and those industries were used as a starting point for larger issues down the road.

Carolyn Green, EnerGreen Capital Management, hoped that “coordination” did not translate into having all reporting go through the most stringent level of review where increasing amounts of funding will be spent on reporting rather than control technology.

Mr. Mason clarified that while it would be nice to have all requirements for industry together with new rules rolling out every eight years, doing so would almost invariably lead to delays in implementation.

Mr. Brenner added that monitoring has come up a few times in different contexts during the day’s meetings. Perhaps Pat Childers can arrange for further discussion into striking a good balance.

Mr. O’Keefe stated that a lot of the NAAQS are promulgated around the same period. Mr. O’Keefe asked to what extent USEPA has thought about pollution that is carried downstream.

Mr. Mason said this concern should be integrated into the 2014 work on other greenhouse gas best available control technology (BACT) discussions.

Mr. Brenner thanked everyone for the helpful conversation and asked for any additional questions or comments.

Pam Giblin, Baker Botts L.L.P, wanted to note the question or comment that was raised earlier about the difference between rulemaking and permitting be recognized.

Elineth Torres, USEPA OAQPS, stated that that issue is currently being worked on and agreed that there is a big difference between the two.

Ms. Gordon asked if fence line monitoring would coincide with indoor monitoring.

Mr. Brenner said that it is worth noting that OAR started down this multi-pollutant and sector-based path without knowing what emphasis it would have on monitoring and permitting activities. Good input, like that which comes from the committee, has helped.

Mr. Neal stated that it is frustrating for industrial sources to monitor given the current technology, especially toxic air emissions. He believed it would be worthwhile to hear from USEPA on PM_{2.5} monitoring at the source level.

Mr. Brenner suggested that there needs to be a better understanding of using PM_{2.5} as a surrogate.

Mr. Mason agreed that the use of surrogates is still a big question. He agreed with Mr. Neal that the question about PM_{2.5} is one that will need to be evaluated to see if there are potential problems or if it is appropriate to use.

Mr. Neal stated that it could be difficult to add on because it can be variable even for liquefied natural gas (LNG) power plants.

Ms. Phipatanakul asked, given the cost if USEPA and OAR would consider working with geocoding, which is less expensive and can accurately predict air pollution and find if a correlation exists. This could be particularly helpful if the location is known.

Mr. Brenner suggested this be something that the committee follows up on and discuss later during the meeting as it is worth pursuing.

Ms. Shephard suggested that California may provide a good pilot study to see how the cap and trade model would work if deployed nation-wide.

Mr. Brenner said the USEPA and OAR has good ties with people out in California. Mr. Brenner stated that the USEPA will continue to monitor what happens in California.

Ms. Torres said that sharing the analysis of a program will be the next step.

Ms. Davis suggested it would be helpful narrow the focus down and identify a few key areas where this approach could have the greatest impact.

Mr. Mason recognized that the changes need to be incremental in nature because it will not be a 'one size fits all' approach.

Mr. Brenner concluded this section by introducing Jim Jones, the career deputy administrator.

NACAA-ECOS-EPA SIP Reform Workgroup Update

Mr. Brenner introduced the SIP reform workgroup report as an interim report.

Nancy Kruger, National Association of Clean Air Agencies (NACAA), explained that the workgroup was launched to solve a problem related to an inefficient SIP process. She explained that implementation is contingent upon the SIP going through the approval process. There are a number of steps and many of them are outdated and redundant and have led to a backlog of SIPs waiting to be approved. She explained that the workgroup's charter included three initiatives: find potential SIP process reform, provide toolkits to state and local authorities, and to implement best practices.

Since the work group formed, they have spent most of their time on potential SIP reforms. They have carefully studied the recommendations made by the air quality management workgroup, and those made by state and local air agencies. She presented a list of 13 potential SIP reforms, which ranged from timely guidance to notifying the public.

Ms. Kruger went on to discuss enhancements made on the federal side to have a more streamlined approval process while achieving clean air goals more effectively. She acknowledged this would be an ongoing process, but that the workgroup looks forward to sharing its progress.

Mr. Kaufman responded that they have been battling with the USEPA to get a SIP out of queue, and that it has been largely frustrating. This particular SIP incorporates almost word for word an USEPA rule, the New Source Review Prevention of Significant Deterioration (NSR-PSD), yet they have to wait for all the backlog of other SIP issues before it is approved. He suggested that there be a system to fast track certain cases, and a state that is literally trying to incorporate and USEPA rule into its SIP would be a good candidate for this.

Ms. Kruger replied that they are aware of the backlog, and said that this is the problem they are currently trying to resolve. The goal is to reduce the backlog so that situations like this do not persist.

Carey Fitzmaurice, USEPA, seconded Ms. Kruger's comments and emphasized that this situation is exactly what they are trying to avoid in the future.

Mr. Becker asked if Mr. Kaufman what USEPA has told him.

Mr. Kaufman said that USEPA has told him that it is still in the queue and will be signed shortly.

Mr. Paul commented that USEPA has been sued over this in the non-attainment areas, and it is his understanding that it is his understanding the USEPA is holding off until the suit in Wisconsin is resolved.

Ms. Nolen asked for clarification over whether some of these are in place and being tested or are they in the pipeline.

Ms. Kruger responded that the four items she spoke specifically about are ones in which they allowed for one hard copy as opposed to five, large data files to be submitted electronically, alerted states as to how best to notify the public of SIP amendments, updated the website for tracking SIP, and so on. Legally it is not currently possible to go fully electronic, but they are continuing to work on further reforms such as this.

Ms. Nolen replied that it was something the committee will look forward to seeing implemented.

Mr. Johnson thanked Ms. Kruger for her presentation and for her work on this. This is an enormous black hole. He brought up an issue with external events like forest fires or volcano eruptions, which may cause an area to go from attainment to nonattainment. The regulations, as they stand now are cumbersome and do not allow for extenuating circumstances.

Mr. Paul had confidence there will be a follow up discussion. He raised four additional issues. First, he was told at the regional level if a SIP had national significance it would have to be submitted to the Office of General Council (OGC), which he felt was a problem. He asked what the backlog situation was like at the OGC and if there was being anything done to ameliorate the problem. He then made a remark suggesting the longer the SIP process took, the greater the chance is for it to be overtaken by new requirements and standards. Third, he brought up difficulties with Title Five permits. Lastly, he asked if it was possible to consider regional SIPs and about conditional approvals, and wondered if these were a tool that was still utilized.

Ms. Fitzmaurice replied that the backlog issues are their highest priority. They are working on streamlining procedures because they need to settle matters of national consistency.

Ms. Giblin wanted to underscore the point about exceptional events coming into play for border states. The timely issuance of guidance would hugely reduce the lag in the SIP process. She thinks that states may delay implementation to align with SIP approval dates, and that this will delay the benefits that implemented regulation will bring.

Julie Simpson, spoke specifically about item 11, and wanted to add the importance of states properly seeking tribal input. It is important to do proper outreach.

Ms. Fitzmaurice responded that they are looking at a new list of issues, and if there are any others that members would like them to tackle, they should contact her.

Discussion/Update on Periodic Regulatory Review

Michael Goo, USEPA, provided information about the regulatory look-back plan. This goal of this plan is to determine how to improve USEPA's regulatory system to make it a truly 21st century regulatory system. On January 18th, 2011, President Obama issued an order for agencies to look back at previous regulations. There will continue to be a focus on regulations that need to be enhanced or repealed, but also on regulations that are not doing their jobs, which need to be altered. This requires agencies to review all rules, but does not necessarily require agencies to undertake rule revisions.

This order is something that USEPA is taking very seriously and they have held listening sessions at each of the ten regions and at headquarters regarding these reviews. They have also created a website to collect public comments and have already received about 1,400 comments which they are currently reviewing. USEPA sent a plan to OMB at the end of April, then reviewed and released this preliminary plan. This plan outlines which regulations USEPA will initially review; however, more than 60 percent of USEPA's regulatory agenda already corresponds to some type of ongoing review. For example, NAAQS is already under a five year review plan.

This plan was fairly well-received, but USEPA is now in the second phase of public comments and will be receiving comments through June 27th. After this comment period closes, they will work through the summer to produce another version of the plan.

Janet McCabe, USEPA, added that these reviews are very important, and that the CAA actually requires USEPA to perform these reviews periodically. Many of the items under the CAA have a periodic review process, but USEPA is not always able to meet these deadlines and there are many other rules outside of the CAA that also need to be reviewed.

OAR is looking at both specific rules and systems issues. The review process is also another vehicle for USEPA to get the word out and get more stakeholder feedback. USEPA wants to prioritize the rules they review based on the public health benefits the public gains from them. USEPA is also working to streamline ongoing reviews and ensure efficiency through combining general requirements, especially in toxics program where there are types of equipment that are used in multiple types of industries. Rather than having similar requirements in many rules, USEPA will pose general requirements that apply to many areas.

Some of the specific updates USEPA identified include reviewing vapor recovery systems on cars, creating mobile source rules that will combine or streamline various recording requirements, streamlining and simplifying MACT rules, and updating NSPSs. Ms. McCabe continued by stating that they are always eager to receive specific suggestions regarding which

rules to review. There are a lot of rules, both big and small, and USEPA needs to make sure the rulemaking process, as well as the rules, is as efficient as possible.

Jack Goldman, Hearth, Patio & Barbecue Association, asked whether stakeholders should submit comments on issues during this round that they were not able to comment on during the first round of public comments.

Mr. Neal commented on the large number of rules for electric utilities and asked whether it would be possible for industry to assist USEPA with the NSPS reviews to take some of the burden off of USEPA.

Mr. Goo responded that industry is more than welcome to submit public comments that USEPA will take into consideration.

Mr. Neal added that industry could help by providing specific language, much like the CAAAC does, and providing that language to USEPA for review.

Mr. Goo responded that he would take that option into consideration.

Mr. Becker commented that this exercise of reviewing regulatory redundancy is a signal of good government and is a laudable exercise, but he also expressed caution that it could result in some unintended consequences or consequences in which those that do not like regulation might use to escape regulation.

John Paul, Regional Air Pollution Control Agency, commented that there are a number of things that can be done in the short term, but he encouraged the agency to be cautious, yet bold, in the long term. Any time the agency comes across a program where the process has overtaken the purpose, they should consider that program for review. He suggested NSR as a candidate for review because there is surely a more efficient manner in which to control sources. The CAAAC has had NSR reform committees for 20 years so he suggested starting up another one.

Public Comments

Mr. Childers opened the floor to public comments. None were given. He then thanked the committee for a great meeting and requested that new members share their opinions on the meeting with him.

No comments were provided.

Next meeting/Close

Mr. Childers stated that there were no public comment signs ups, but asked if anyone in the room wanted to address the committee. He said he would like to hear from the new members about the meeting, and asked they email any feedback to him. Then Mr. Childers proposed the 15th, 16th, and 17th of November as possible meeting dates and asked about any potential conflicts.

Mr. Brenner said that the Community Action for a Renewed Environment program has a workshop during this time.

Mr. Childers noted this, and said that if they have a November meeting, the following meeting would likely be in February. He added the caveat that if he does schedule the meeting on the day someone has a conflict, it is nothing personal. He also asked if people had topics they would like discussed at upcoming meetings, mentioning monitoring as one that had already been brought to his attention.

Ms. Gordon thanked Mr. Childers and asked that ports be included in the process wherever they can be included in the CAA.

Mr. Childers responded that the CAA does have an extensive mobile source history, but does have a separate mobile source committee that all are invited to.

Ms. Giblin suggested they discuss the secondary NAAQS and all associated matters, including timeline and USEPAs plan for them.

Mr. Becker suggested that they hold a future meeting outside of DC, specifically in Harlem or West Oakland.

Mr. Childers responded that the CAAAC does have a resource issue, but perhaps they can look into holding a meeting in the South East quadrant of Washington DC.

Ms. Gordon extended an invitation to the members to come to West Oakland for a toxic tour.

Ms. Shephard extended Ms. Gordon's invitation to anyone who wanted a toxics tour of Harlem. She also asked to hear more about how to measure cumulative air quality issues that are place based. She believes that this will be a component of the new environmental justice policy, and how to incorporate that.

Mr. Childers responded that Ms. Shephard's topic would be very timely, and could tie into a call out about all the work they have been doing.

Mr. Brenner responded that the Office of Research and Development has work underway on cumulative risk assessment, and so they could probably bring someone in to talk about this work.

Ms. Simpson asked about the 2005 NADA data map, and if it would be possible to view overlaid with non-cancer risk, health care costs, and asthma rates included and tie this data into the EJ issue.

Ms. Nolen spoke about the environmental health tracking information that the Center for Disease Control has been heading up, and said that it has begun to generate interesting studies.

Mr. Childers thanked everyone for their attendance and said that Mr. Brenner gets the last word.

Mr. Brenner spoke about how much he appreciated the kind words and recognition of his retirement. He added that the caliber of the participation and comments throughout the meeting was exceptional. He thanked Pat for all his work in running the meetings and the awards ceremony, and the staff of ICF for their support as well.

Clean Air Act Advisory Committee

June 8th, 2011

Almas Temple

Washington, DC

List of Attendees

Dave Barrett (For Lisa Gomez)	San Diego Gas & Electric
Bill Becker	National Association of Clean Air Agencies
Rob Brenner	USEPA
John Campbell	Caterpillar Inc.
Pat Childers	USEPA
Chuck Collett	National Association of Home Builders (NAHB)
Lisa Connor	USEPA
Beth Craig	USEPA
Jennifer Craig	USEPA
Stacey Davis	Center for Clean Air Policy
Will Driscoll	Ozone Transport Commission
Carey Fitzmaurice	USEPA
David C. Foerter	Institute of Clean Air Companies (ICAC)
Pam Giblin	Baker Botts L.L.P.
Jack Goldman	Hearth, Patio & Barbecue Association, Inc. (HPBA)
Michael Goo	USEPA
Margaret Gordon	West Oakland Environmental Indicators Project
Carolyn Green	EnerGreen Capital Management, LLC
Vince Helwig	Michigan Department of Environmental Quality
Steve Lee Hensley	USA Rice Federation
Dan Johnson	WESTAR Council
Gary Jones	Printing Industries of America Graphic Arts Technical Foundation
Jim Jones	USEPA
Jennifer Kaufman	Carbon Yeti Program – City of Bellevue
Rob Kaufman	Koch Companies Public Sector, LLC
Nancy Kruger	National Association of Clean Air Agencies
Janet McCabe	USEPA
Gina McCarthy	USEPA
Jeff Muffat	3M Corporation
Don Neal	Calpine Corporation

Janice Nolen	American Lung Association
Robert O'Keefe	The Health Effects Institute
Steve Page	USEPA
John Paul	Regional Air Pollution Control Agency
Wanda Phipatanakul	Children's Hospital Boston
Karin Ritter (for Howard Feldman)	American Petroleum Institute
Peggy Shephard	We Act for Environmental Justice
Julie Simpson	Nez Perce Tribe
Lori Stewart	USEPA
Eric Svenson	PSEG Services Corporation
Gene Tierney	USEPA
Eddie Terrill	Oklahoma Department of Environmental Quality (ODEQ)
Elineth Torres	USEPA
Peter Tsigotis	USEPA
Mary Turner	Waste Management
Philip Wakelyn	Texas Cotton Ginners' Association
Kathryn Watson	Improving Kids' Environment
Ann Weeks	Clean Air Task Force
Joy Wiecks	Fond du Lac Reservation
Anna Marie Wood	USEPA