Federal Advisory Committee Act

Clean Air Act Advisory Committee

Virtual Meeting
June 15, 2022

Welcome & Opening Remarks

Due to concerns about safety regarding the coronavirus, this Clean Air Act (CAA) Advisory Committee (CAAAC) meeting was held remotely via Microsoft Teams. Ms. Lorraine Reddick, the Designated Federal Official, opened the meeting and reviewed the agenda, which is displayed below. A list of attendees is provided in Attachment 1. Previous meeting minutes as well as materials associated with this virtual meeting will be available online at the Environmental Protection Agency (EPA) CAAAC website (https://www.epa.gov/caaac).

Virtual Meeting Agenda

Time	Item	Presenters/Facilitators
1:00 - 1:05pm	Opening Remarks	John Shoaff and Lorraine Reddick *EPA Office of Air Policy and Program Support (OAPPS)*
1:05 - 1:45pm	Update from EPA Office of Air and Radiation (OAR) Leadership	Joe Goffman, *Assistant Administrator, OAR*
1:45 - 2:35pm	Presentation and Discussion of the Recent National Academies of Sciences, Engineering, and Medicine (NASEM) Study: "Why Indoor Chemistry Matters"	Jonathan Edwards, *Director, EPA Office of Radiation and Indoor Air (ORIA)* Laura Kolb, *Director, Center for Scientific Analysis, Indoor Environments Division*
2:35 - 2:45pm	Break	
2:45 - 3:15pm	Air Trends Update	Mike Koerber, *Deputy Director, EPA Office of Air Quality Planning and Standards (OAQPS)* Julia Black, *Physical Scientist, OAQPS*
3:15 - 3:40pm	Update from the National Environmental Justice (EJ) Advisory Committee (NEJAC) Air Quality and Community Monitoring (AQCM) Workgroup	Andy Kricun, *NEJAC AQCM Workgroup member* (invited) Patricia Koman, *OAPPS*
3:40 - 4:00 pm	Public Comment and Closing Remarks	John Shoaff and Lorraine Reddick

Update from OAR Leadership

Mr. Joe Goffman began by announcing that Ms. Cynthia Giles has recently joined the EPA leadership team at the Office of Air and Radiation (OAR). She previously led the EPA Agency Review Team during the Biden-Harris transition and also served two terms as the Assistant Administrator for the Office of Enforcement and Compliance Assurance (OECA) under President Obama, where she played a key role in addressing the Volkswagen emissions scandal. Now, she is helping the EPA examine its emissions standards and rulemakings as they are created to ensure that they create the right pathways and incentives for compliance. Mr. Goffman invited Ms. Giles to introduce herself to the CAAAC.

Ms. Giles expressed her excitement about working with the OAR leadership team. She explained that she is focusing on helping the EPA write rules that will be effective in the real world and accomplish what they are intended to do.

Mr. Goffman then discussed the progress made by the OAR since his last update to the CAAAC. This included the following:

Oil and Gas Rule

In November 2021, the EPA proposed a comprehensive program addressing methane emissions from new and existing sources in the oil and gas industry. They received tens of thousands of comments as well as hundreds of detailed technical comments. The EPA stated their intention to follow this with a supplemental proposal and asked for comments and information about topics they hoped to address later, which they received. They will be proposing additional standards and requirements and putting forward a supplemental proposal by the end of the summer or early fall 2022. They are aiming to finalize the entire package in the spring of 2023.

Light Duty Greenhouse Gas (GHG) Standards

In December 2021, the EPA issued a final tailpipe standard for GHG emissions from light-duty vehicles (LDVs). Those standards covered model years (MY) 2023-2026. They are already working on another rulemaking for GHG and criteria air pollutant (CAP) emissions for MY 2027 and beyond. That work has involved engagement with key stakeholders, and more is planned in the coming months as they focus on more specific issues. They are planning to issue the next proposal in early 2023.

Heavy Duty Rules

The EPA is currently working on a rulemaking to address NO_x and conventional pollutants from heavy-duty vehicles (HDVs) as well as targeted updates or upgrades to existing GHG emission standards for HDVs. They proposed standards in March 2022 and have had public hearings and received hundreds of detailed technical comments on the proposal. When they issued that Notice of Proposed Rulemaking, they included two options addressing a few components, including

emissions performance standards and features addressing the lifetime operation of vehicles and the pollution control equipment they use. They received a wide range of comments and information from stakeholders and are proceeding towards finalizing this rule by the end of 2022. This includes having discussions with some of the leading stakeholders and scholars in this area to develop a final rule that will be ambitious in terms of air quality benefits while still being achievable. The emissions standards will go into effect starting with MY 2027 if they hit their deadline, and they will be followed by a future rulemaking that will address the next phase of GHG emissions standards for HDVs.

Good Neighbor Rule and Other Power Sector Standards

Administrator Regan gave a speech at Cambridge Energy Research Associates or CERAWeek in March 2022 in which he laid out his vision for the agency to address pollution and waste from the power sector. The OAR is responsible for several elements of this strategy; that same week, the EPA issued its "Good Neighbor" program proposal. This is one of a succession of rules that address trans-boundary air pollution. In that proposal, they identified 26 states whose pollution crossed state lines and affected or threatened air quality in downwind nonattainment areas. A major component of the proposal is a set of requirements that apply to coal-fired power plants. It sets state-level emissions budgets that are based on the installation or full operation of selective catalytic reduction technology to reduce NO_x. It also includes a component addressing certain industrial sources, although the main focus is the power sector. This proposal does rely on a cap and allowance architecture, but it includes features that are designed to ensure that the emissions reductions are achieved at the individual plant level and are achieved at a time that is critical to achieving ozone standards in downwind nonattainment areas. The first phase of the standards would go into effect in 2023 to achieve the needed emissions reductions for the 2023 ozone season as the second phase goes into effect in 2026.

The EPA also issued a draft white paper addressing GHG reduction technologies that could be applied at new natural gas-fired power plants. They have been collecting comments and technological responses from the public related to the contents of the paper, and they anticipate that some of that feedback will inform their proposal under Section 111(b).

The EPA is working on finalizing the appropriate and necessary finding for its mercury and air toxics standards (MATS) and is also developing a proposal to address the residual risk and technology review (RTR) for mercury and other air toxics emitted by power plants.

In the same time frame, the EPA is developing a proposal to address CO_2 emissions from existing power plants under 111(d). They are awaiting the Supreme Court's decision in West Virginia v. EPA, which will be critical to inform the extent of their legal authority for setting CO_2 standards for the power sector.

National Ambient Air Quality Standards (NAAQS) Reconsideration

The EPA is in the process of reconsidering the particulate matter (PM) and ozone NAAQS and are a little further ahead on the former. The Clean Air Scientific Advisory Committee (CASAC) has reviewed their supplemental science and policy assessments and issued a letter sharing their views, including the views of a panel brought together specifically to address PM. The EPA is awaiting CASAC's response on the ozone draft policy assessment, which will then inform the options they present to the Administrator.

AirToxScreen

Lastly, Mr. Goffman noted that the EPA unveiled AirToxScreen in 2021 to provide data about air toxics in communities (https://www.epa.gov/AirToxScreen). The initial release is based on 2017 data, but by 2023, they will begin using more up-to-date information, starting with data collected in 2019. It will be updated every year thereafter.

Discussion

A member asked if there would be efforts to deal with exemptions and variable levels of enforcement provided by environmental rule enforcement agencies. Mr. Goffman stated that they should follow up on this at OAR, since they will be addressing some of these issues as they move ahead with the oil and gas rulemakings. He also stated that they would follow up with the member personally to get more information and input.

Another member asked about the lag in the next phase of HDV standards and whether the EPA is seeing greater support for electrification or more stringent NO_x standards; the member also pushed for greater speed in issuing these rulemakings so they could coincide with the other NO_x standards. Mr. Goffman explained that the statutory authority under which they are issuing these rules requires them to allow some lead time for the manufacturers, and one of the drivers for finishing the HDV NOx rule by this year is to capture MY 2027. He confirmed that they have also heard from manufacturers that they want to focus all of their resources and investments on Zero Emission Vehicles (ZEVs). However, since a substantial portion of the new vehicle fleet will still have gasoline or diesel engines and given how long those vehicles will stay on the road, it is critical to issue a new NO_x standard as soon as possible. The reason they proposed not just NO_x standard, but a targeted upgrade of the existing GHG standards, is to catch up to the market trends; some Original Equipment Manufacturers (OEMs) are producing ZEVs more quickly than the EPA anticipated when setting the current GHG standards. Consequently, the proposal asks for comment on whether it makes sense to catch up to the market, and some of the responses suggested that not only does it make sense, but that the EPA should consider pushing the market even faster.

Regarding a question about how AirToxScreen will interact with the National Air Toxics Assessment (NATA), Mr. Mike Koerber explained that it will be a replacement. Whereas NATA has been conducted every three years, AirToxScreen will be an annual assessment, and they plan

for it to be incorporated into the annual Air Trends Report. It will also be discussed in the context of the air trends update later during this meeting. Mr. Koerber stated that the next improvement they are seeking is to get better air toxics emissions data.

Another member noted that the EPA is investigating further regulation of non-Electric-Generating Unit (EGU) stationary sources asked about whether the EPA is investigating opportunities for emissions reductions from non-road sources that would yield results more quickly than the longer shift towards electrification, particularly from the rail sector, given the long life of many of those vehicles and equipment. Ms. Nunez explained that her office is currently primarily focused on the Light-, Medium-, and Heavy-Duty vehicle standards. They are also looking into options for working with other federal agencies that might have available funding for programs that will reduce emissions from the non-road sector. They are also emphasizing and dedicating personnel to working on the implementation of the new Clean School Bus program. Mr. Goffman added that there are reasonably available control technology (RACT)-like requirements within the "Good Neighbor" proposal that they have identified as necessary for certain sectors to deal with the downwind effects of NO_x. Mr. Carbonell also added that the non-EGU components of the "Good Neighbor" proposal are focused on interstate transport of ozone, and they are anticipating significant amounts of public comments on the proposal. The EPA wants to ensure that their technical analysis of those sources and available cost-effective pollution controls are correct and rely on the best available data. The analysis reflected in the proposal indicates that that subset of industrial sources covered by the rule has a significant impact on downwind air quality and that there are significant opportunities for cost-effective emission reductions.

In response to a follow-up comment about the possibility that ratcheting down the PM National Ambient Air Quality Standards (NAAQS) will disproportionately affect a small set of sources at disproportionately high costs, Mr. Carbonell explained that they are still developing the PM NAAQS, and they are at the stage in that process wherein the decision about the level of the NAAQS depends on public health science. Once the standard is promulgated, it is the role of the states to develop State Implementation Plans (SIPs) to achieve those health-based standards, and the EPA will work with the states during that process. The member pointed out that it is possible to create a health-based standard that accounts for the incremental health benefit as compared to the cost of compliance and encouraged the EPA to look into recent research that has been conducted on this topic and how to balance these needs. Mr. Goffman observed that this gets down to a very granular level and pointed out that the Administrator is very limited in what he is able to consider as he makes that decision; namely, it must be a protective standard from a public health perspective. If he does decide to change the standard, that triggers a cascading set of obligations on the part of the EPA and the states, especially nonattainment areas, where the considerations raised by the member will come into play. He requested that the member provide any relevant or useful information and materials to the EPA, since the next step in this process is to obtain public comments.

NASEM Study: "Why Indoor Chemistry Matters"

Mr. Jonathan Edwards began the presentation by emphasizing the importance of indoor air quality (IAQ) due to the amount of time we spend indoors and the high concentrations of pollutants and toxics that can accumulate. He also noted that the COVID-19 pandemic has brought more attention than ever before to things like filtration, ventilation, and air purification technologies.

Ms. Laura Kolb gave an overview of the ORIA Indoor Environments Division (IED), which is tasked with addressing top public health risks, including radon, asthma, indoor PM, indoor air quality in homes and schools, and emerging and emergency issues (e.g., wildfires, COVID-19, by-products of indoor chemistry). She noted that the IED is a non-regulatory division, so its responsibilities include providing information to inform policies or programs; fostering partnerships with industry, non-governmental organizations, and other governmental entities; and issuing grants. The IED's activities are primarily authorized by the Superfund Amendments and Reauthorization Act (SARA) Title IV – Radon and Indoor Air Quality Research Act and the Toxic Substances Control Act (TSCA) Title III – Indoor Radon Abatement.

Ms. Kolb then provided some background on IAQ, noting that people in the U.S. spend about 90% of their time indoors. Indoor air can contain a wide variety of chemical pollutants that originate from both indoor and outdoor sources, and most exposure to chemicals from outdoor sources occurs indoors. In addition, indoor chemistry can transform some contaminants into new chemicals, the impacts of which are not well understood. Ms. Kolb noted that indoor air chemistry is more complex than outdoor air chemistry because there are more sources and more surfaces to both produce and catch pollutants. Also, a pollutant released indoors is about 1,000 times more likely to reach someone's lungs than if released outdoors.

Ms. Kolb next discussed a recent National Academies of Sciences, Engineering, and Medicine (NASEM) report on indoor air chemistry. The report was developed by a committee that was charged to consider the state-of-the science regarding chemicals in indoor air. Specifically, the committee was asked to develop a report with a focus on new findings about previously under-reported chemical species, chemical reactions, and sources of chemicals, as well as the distribution of chemicals; and how indoor chemistry findings fit into context of what is already known about the link between chemical exposure, air quality, and human health. The committee was also asked to include findings and recommendations regarding the key implications of the scientific research, including potential near-term opportunities for incorporating what is known into practice; and where additional chemistry research will be most critical for understanding the chemical composition of indoor air and adverse exposures. The report contains several recommendations from the committee regarding chemical complexity in the indoor environment, indoor chemistry in a changing world, future investments in research, and communicating science and risks. Ms. Kolb noted that while the developed recommendations in these areas, it was not part of the charge to the committee to prioritize all of them. Consequently, this is an area where IED would like to receive feedback from the CAAAC.

Ms. Kolb concluded the presentation by providing the following charge to the CAAAC: "Provide recommendations on prioritizing the research needs identified by the NASEM in their consensus report: Why Indoor Chemistry Matters. Focus on priorities for short term research (1-3 years) that could inform public health guidance and building practices for improving IAQ in homes, schools, and commercial and office buildings." This could be accomplished by mobilizing the full CAAAC or forming a workgroup, and a written response is desired within 3 to 6 months. The lead office for this charge is ORIA, and the point of contact will be Ms. Kolb, whose email address is kolb.laura@epa.gov.

Discussion

A CAAAC member suggested that because of the impact that indoor air has on schoolchildren, the Department of Education (ED) should be included in this discussion when it comes to long-term planning and the construction of new schools. They also noted that the U.S. Green Building Council's has done a lot of work regarding indoor pollution of schools. The member observed that focusing on schools can have a big impact on a highly vulnerable population. Ms. Kolb stated that the EPA does work with ED and is heavily involved with IAQ in schools. They are planning on sharing any recommendations that CAAAC might make regarding IAQ in schools with ED and other relevant stakeholders.

Another member asked to what extent the NASEM report recommendations would be addressed by the EPA's research group. Ms. Kolb answered that their research group will be reviewing the report recommendations, but there is too much for the EPA to do, so they will be reaching out to their partners for help with this.

Regarding Recommendation 13, which is about engagement with communities, a CAAAC member commented that one of the most important first steps is to engage early and often with the communities that are going to be most affected. The commenter suggested that the EPA work with the communities in partnership rather than only presenting to them.

In response to a question about the CAAAC workgroup charge, the desired format for deliverables from this new workgroup, and what the EPA would do with the final product, Ms. Kolb clarified that they want the CAAAC's help in prioritizing the most critical short-term research needs.

Mr. Shoaff asked the CAAAC members to consider whether they are willing to serve on this workgroup and get back to him and Ms. Reddick in the next several weeks. He also clarified that this will be more flexible and less time-consuming than, for example, the CAA 50th Anniversary Report that was recently approved by the CAAAC.

One CAAAC member asked how communities with outdoor air issues can be assured that IAQ research won't affect their concerns or compete for resources and attention and whether the EPA will ensure that the indoor air assessments are evaluating those connections. Ms. Kolb offered to follow up on this topic with the member. Mr. Shoaff added that one of the report

recommendations focused on community concerns and acknowledged that they understand the member's concerns about working with limited resources.

Air Trends Update

Mr. Koerber introduced Ms. Julia Black to present the latest Air Trends Report, which was published on June 1, 2022 (https://gispub.epa.gov/air/trendsreport/2022/). Ms. Black displayed the interactive website and walked everyone through each of its major sections, which can be accessed via the top menu:

- Introduction
    - Includes a download link for a one-page summary
    - Overall air quality trends
    - More information about the types, sources, and interactions of air pollutants
    - Emissions sources
    - Effects of air pollution on human health and the environment
- Growth
    - Comparison of emissions trends to certain economic indicators since 1970
    - Aggregate emissions of six common pollutants
- NAAQS
    - Trends in criteria air pollutants
    - Composition of $PM_{2.5}$
    - Unhealthy air days trends
    - Air quality in nonattainment areas
- Visibility - Improvements in scenic areas
- Toxics – Trends in air toxics levels
- Spotlight
    - This section allows the EPA to spend more time discussing certain areas of interest in greater detail; the two topics selected this year are expected to be updated annually and rolled into the permanent air toxics section (above) in future reports
    - Air toxics cancer risk
    - Air toxics noncancer hazards
- Summary
    - Links to share the report on social media as well as links to additional resources

Discussion

A CAAAC member asked whether the EPA would consider incorporating environmental effects like acid rain deposition into the air trends report. Mr. Chet Wayland responded that such information had been included when the air trends report was published in paper format, but that the information was not initially included when they switched to an online format. Now that the online version is working smoothly, this is a suggestion they will consider moving forward.

A CAAAC member asked how this improves upon the NATA and if AirToxScreen does anything to create more consistency across the states. They also commented that this tool looks at national trends and does not seem to capture hotspots or the relative amounts of air toxics present at the community level. Mr. Koerber acknowledged that data inputs are an area of improvement for this report, and the EPA is working to ensure better air toxics data are obtained.

Another member echoed the previous commenter and suggested that now that the EPA has the ability to zoom in to the tract level for air toxics, they could start thinking about bringing in additional data sets, such as data from satellites, to display those hot spots and could also work on displaying data at the tract level for criteria pollutants. Mr. Koerber explained that the data in the report is based on the data they have, and a lot of it is based on engineering estimates and monitoring data. He agreed that satellite data is another source that they could use. Mr. Wayland noted that one of the maps shows NO_2 trends based on National Air and Space Administration (NASA) satellite data, so they are already pulling in some of those products. There is a lot of work going on related to data fusion and looking at other data sources, such as satellites, low-cost sensors, and regulatory networks, and they are trying to determine the best mix that will be as accurate as possible.

One CAAAC member expressed concern about how data is presented and recorded in the Arctic; they find that it lacks analysis that would help residents there understand the information on the site. As a community that lives in an oil and gas development area and has seen facilities evacuate residents within a seven-mile radius, they need information to be presented in a way that is informative as an event occurs, especially if there are emissions they need to be concerned about.

Another member noted that as the EPA considers changes to the PM NAAQS, this tool seems to be an easy way to look more broadly at sources of PM beyond stationary sources that are already heavily regulated.

A member asked if the information in the report is being used to help states and the EPA make exceptional events determinations. Mr. Wayland stated that much of the same underlying data is used for the report and for exceptional event determinations, but the raw data would be used in those determinations rather than the trends report itself. He pointed to the fire and smoke map (https://fire.airnow.gov/) as a more useful tool when thinking about exceptional events since it's real-time data that can clearly show the impacts of smoke from about 3,000 sensors that aren't part of the regulatory network.

In response to a question about why GHGs are not included in the report, Mr. Wayland stated that this is due mostly to office organization: they have another office in OAR that handles GHG reporting and puts out their own report, but this is a good suggestion moving forward.

Update from NEJAC AQCM Workgroup

Ms. Patricia Koman and Mr. Andy Kricun provided updates from the National Environmental Justice Advisory Council (NEJAC) Air Quality and Community Monitoring (AQCM) workgroup. Mr. Kricun began by explaining that the NEJAC is dedicated to the principle that everyone is entitled to clean air, safe drinking water, and clean waterways, regardless of who they are or where they live. Its goal is to identify areas of disproportionate burden and then push for corrective action. A subset of the NEJAC is the AQCM workgroup, which is working to minimize the impact of harmful air emissions on EJ communities. They believe that there are three main components of a protective approach: air emissions regulations, effective regulatory compliance and enforcement, and community monitoring. They see a few windows of opportunity to improve air quality in EJ areas, which include:

- The Justice40 Initiative, which represents a redoubled emphasis on EJ across all areas;
- The American Rescue Plan (ARP), which provides grants for new technology; and
- Improvements in technology, including control devices and sensors.

Ms. Koman explained that enhanced air quality monitoring has long been a priority for the NEJAC, and the ARP provides a one-time supplement appropriation that represents one of the largest investments in community monitoring in the EPA's history. As sensor technology, data science, and data visualizations all improve, the EPA is in the process of awarding that funding to support community and local efforts to monitor their own air quality and establish partnerships between communities and state, local, and tribal governments. In anticipation of this data being collected and being used to drive improvements in the field, the EPA is seeking advice from the AQCM workgroup regarding "community perspectives about data management, interpretation, and access of air quality monitoring data in anticipation of ARP grants and new sensor techniques."

The next steps for the committee are to recruit additional members who can lend their expertise and perspectives through September 2022, then create a brief letter or report with recommendations by the fall, which will be presented to the full NEJAC before being sent to the EPA.

Mr. Shoaff noted that one CAAAC member has already volunteered to join the workgroup, and there is a clear benefit to more collaboration between the CAAAC and the NEJAC. He asked that any interested members reach out to him, and they will evaluate how best to move forward from there.

Discussion

An attendee filling in for an absent CAAAC member explained that they're a member of the National Steering Committee for the Small Business Environmental Assistance Program, and they have an interest in having a representative on the NEJAC. Mr. Kricun responded that the NEJAC accepts applications for new members every other year, so they should refer to the NEJAC website for when the next call for membership nominations goes out.

Another member observed that there is a lot of overlap between EJ and air quality, and especially indoor air, and among EJ communities, their efforts to improve IAQ is often complicated by a lack of control that they have over the spaces where they spend their time; for example, they can't install sensors in public housing or rental properties. The member noted that it's important to consider not only exposure, but also a lack of agency experienced by many populations.

A member encouraged the EPA to reach out to communities and facilitate a process where communities can have the resources and tools to advance their concerns directly. This is especially important for smaller and more remote communities.

One member commented that some urban EJ areas may already have sufficient monitoring, but there may be a lack of awareness of the monitoring or sufficient communication about it. Mr. Kricun agreed that monitoring is useful and offers transparency but needs to be complemented with regulations and enforcement. The member cautioned that making data available may not be useful if people can't use or understand it.

Public Comment and Closing Remarks

There were no members of the public who wished to speak, although a CAAAC member spoke up to thank the other members for the discussion and advocate for appropriate monitoring in advance of projects being approved, not just after they are constructed or begin operations.

Ms. Reddick reminded everyone that the Mobile Sources Technical Review Subgroup (MSTRS) is seeking new members, and the deadline for nominations is July 11, 2022. She also stated that the next CAAAC meeting is scheduled for September 13-14, 2022, and it is expected to be in person in Washington, D.C., as long as coronavirus cases are low, with a hybrid option available for those who cannot attend in person. The meeting will most likely be at the EPA headquarters in conjunction with the Clean Air Excellence Awards Ceremony, and more information will be forthcoming regarding accommodations as well as travel assistance for those who may need it. She asked members to email her if they anticipate requiring assistance and have not yet reached out.

Ms. Reddick also noted that some members would be hearing from her and Mr. Shoaff in the following weeks if they were promised additional follow-up on certain topics. She then adjourned the meeting.

Attachment 1

CAAAC Virtual Meeting Attendance List[1]		
CAAAC Members	**EPA Staff**	**Other Attendees**
Rosemary Ahtuangaruak	Julia Black	Diana DiGangi
Susan Anenberg	Tomás Carbonell	Andy Kricum
William Bahnfleth	Jonathan Edwards	Margaret Overton
Shannon Broome	Cynthia Giles	Meenakshi Pandit
Deb Brown	Joe Goffman	Sean Reilly
Natalene Cummings	Mike Koerber	Allen Schaeffer
Veronica Figueroa	Laura Kolb	Julie Simpson
Jeremy Fincher	Patricia Koman	Gary Steinbauer
Gail Good	Jonathan Lubetsky	Lesley Stobert
Dan Greenbaum	Ale Nunez	Marise Textor
Sara Hayes	Lorraine Reddick	Linda Wilson
Mitch Hescox	Tamara Saltman	Jennifer Wittenburg
Robert Hodanbosi	John Shoaff	
Adrienne Hollis	Chet Wayland	
Jason Howanitz	Catrice Jefferson	
Tim Hunt	Osmond Lindo	
Miles Keogh	Wendy McQuilkin	
Eric Massey	Ruth Morgan	
Bob Meyers	Larry Weinstock	
Mary Peveto		
Clay Pope		
Frank Prager		
Kim Scarborough		
Max Sherman		
Ted Steichen		
Vicky Sullivan		
Tim Wallington		
Bob Wyman		

[1] This list of meeting attendees is not comprehensive due to a number of unidentified call-in participants.