

Clean Air Act Advisory Committee

**Virtual Meeting via Microsoft Teams
May 20, 2020**

Introduction, Opening Session

Mr. Larry Weinstock opened the meeting at 12:45 PM on May 20, 2020 and welcomed the Clean Air Act Advisory Committee (CAAAC) members. Mr. Weinstock then reviewed the meeting agenda (see Table 1).

Table 1. CAAAC Meeting Agenda: November 7, 2019

Time	Topic
12:45 – 1:00	Opening Session
1:00 – 1:45	OAR Overview & Update on Priorities
1:45 – 2:45	OAR Regulatory Updates
2:45 – 3:00	Break
3:00 – 4:00	COVID-19 Impacts, Response, and Air Issues
4:00 – 4:30	AirNow Relaunch
4:30 – 5:00	50 th Anniversary of the Clean Air Act
5:00 – 5:15	Public Comments

Mr. Weinstock proceeded to introduce Mr. John Shoaff, the Director of the Office of Air Policy and Program Support. Mr. Shoaff thanked everyone for their attendance and noted that the EPA is doing everything possible to continue to support air quality and human health during the COVID-19 pandemic. Mr. Shoaff then introduced the CAAAC members and welcomed Principal Deputy Administrator Anne Idsal to give remarks on the Office of Air and Radiation priorities and updates.

A list of meeting attendees is provided in the Appendix. Associated materials are posted online at the CAAAC website: <https://www.epa.gov/caaac/2020-epa-clean-air-act-advisory-committee-meeting>.

OAR Overview & Update on Priorities

Ms. Idsal thanked everyone for their attendance despite the challenging circumstances. She reiterated that the EPA is proceeding at pace with their work and that teleworking has not contributed to any delays. Ms. Idsal stated that keeping open channels of communication has been key among both the EPA's staff and among CAAAC members. Looking back on the EPA's role over the past 50 years, Ms. Idsal noted that communication has played a critical role over that time and the CAAAC has served an important advisory role up to this point. She noted that the EPA has worked to cut air pollution by over 74 percent in the past 50 years and has accomplished many impressive feats in an effort to ensure clean air and a healthy environment.

Ms. Idsal started her update to the group by acknowledging that the EPA is playing a significant role in the larger COVID-19 response. The Office of Air and Radiation (OAR) recently collaborated with the EPA's regional offices to disseminate information to state and local partners. On March 30, Ms. Idsal noted that OAR provided input to state and local entities on balancing the function of ambient air monitoring with local orders and the health and safety of their employees. OAR also provided information to regional leaders in an efficient manner, and therefore, Ms. Idsal reported that OAR only saw a negligible impact on monitoring capacity. She also stated that OAR introduced an interim final rule aimed at protecting workers at power plants and other power generation facilities during the COVID-19 national emergency. This rule amended existing regulations temporarily to avoid placing power plant and industry personnel at risk. Ms. Idsal reiterated that this is a temporary interim rule and does not affect requirements for power plants to submit emissions data. It is effective immediately, as published in the Federal Register, and will expire in 180 days. Lastly, Ms. Idsal noted that OAR is watching the COVID-19 impact on fuel supply. For example, the EPA temporarily waived summer gasoline limitations until May 20th, 2020 to allow winter grade gasoline that remained in the system to be sold until supplies were depleted.

OAR is doing all that it can to support a strong COVID-19 response, stated Ms. Idsal, while also moving forward with the overarching priorities of the agency. For instance, as part of Asthma Awareness Month education, the Indoor Environments Division will be hosting a webinar on Wednesday, May 28th to discuss reducing school absenteeism attributable to asthma. Ms. Idsal said that OAR is honoring two awardees for their efforts in combating asthma – the University of Texas Health Science Center at Tyler and Children's Hospital Colorado Breathing Institute. The EPA also relaunched AirNow last month with upgrades and updates for greater functionality and mobile compatibility to provide better services to the public. The program has more than 140 partners and gives the public access to air quality forecasts and conditions.

Ms. Idsal continued to relay OAR's current priorities, describing their efforts to streamline and modernize the EPA's existing fuel regulations to remove duplication. She indicated that this involves removing over 800 pages of duplicate text from existing regulations to reduce compliance costs while increasing compliance. She noted that this would help industry partners know what is being regulated, how it is being regulated, and how to certify fuels. Ms. Idsal emphasized that this action does not change the stringency of fuel quality standards, but rather

ensures compliance uniformity across the industry. OAR's goal is to have these streamlined regulations take effect at the start of 2021.

Ms. Idsal also discussed work conducted by the Air Markets Division. Under the acid rain program and the Cross-State Air Pollution Rule (CSAPR), the EPA saw reductions in pollutants due in large part to shifts in fossil fuel generation. Ms. Idsal noted that the stay-at-home orders related to COVID-19 have changed the transportation sector's emissions but clarified that many of these reductions are unrelated to those shifts since the stay-at-home orders did not take effect until the last two weeks of the quarter. Ms. Idsal also stated that the DC Circuit Court remanded one aspect of the 2016 CSAPR update, but the rule is continuing to be implemented while the EPA works to address this one issue.

In discussing NAAQS, Ms. Idsal noted that OAR had committed to completing a NAAQS review for both PM and ozone within the statutory 5-year timeframe. As a result of Clean Air Act programs, state and local governments, and technology improvements, PM 2.5 levels decreased by 30 percent from 2000 to 2018, and 90 percent of counties around the county are in attainment. Ms. Idsal noted that EPA recently proposed to retain the PM 2.5 and PM 10 NAAQS without changes following a careful review of the scientific evidence and risk. Comments on this decision will be accepted through June 29th, and the EPA is in the process of holding virtual public hearings. Ms. Idsal told meeting participants that they could visit the EPA's PM website to submit their comments or register for the public hearing. Ms. Idsal went on to say that the EPA is moving forward with the ozone NAAQS review and that OAR needs to finalize their policy assessment, and that both the PM and ozone reviews are on track to be completed by the end of 2020. Additionally, OAR is hoping to reduce the number of areas in the country that do not meet attainment of the NAAQS.

Ms. Idsal stated that in April, OAR moved ahead with the supplemental cost finding and Risk and Technology Review (RTR) for the Mercury and Air Toxics Standards (MATS). She noted that power plants are complying with the standards that limit mercury emissions and other HAPs, and that the final action leaves those in place and unchanged. The EPA also reevaluated how costs and benefits should be weighted. Ms. Idsal was careful to point out that this final action does not remove coal and oil-fired power plants from regulation under Section 112 of the CAA, and that they are subject to and must comply with the MATS rule.

Alongside the U.S. Department of Transportation's (USDOT) National Highway Traffic Safety Administration (NHTSA), the EPA finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which set Corporate Average Fuel Economy (CAFE) and carbon dioxide emission standards from 2021 through 2026 for passenger cars and light trucks. Ms. Idsal stated that an increase in stringency of 1.5 percent will occur each year through 2026, which is a change from the 2018 proposal. She described the program as being a sensible, national program that protects the environment while setting reasonable and achievable goals for the auto industry.

For amendments to the Oil and Natural Gas New Source Performance Standards (NSPS), Ms. Idsal stated that OAR co-proposed two actions to remove duplicative language from the 2016 rule. She noted that separate methane limitations for that segment of the industry were proposed to be redundant. OAR is currently reviewing comments on both the technical package and proposed policy package.

Ms. Idsal stated that Administrator Wheeler signed an advanced notice of proposed rulemaking related to the Cleaner Trucks Initiative (CTI) in January. This notice laid out a path for reducing NOx emissions and asks for input from the EPA's nine regions. OAR received an abundance of feedback and will be moving towards a notice of proposed rulemaking later this summer. Ms. Idsal also commended OAQPS for their stellar work upholding the CAA, noting that they completed RTRs for 18 existing source categories in three years and are on track to complete more in the near future, as they correspond with court-ordered deadlines.

Ms. Idsal ended her remarks by updating meeting attendees on the New Source Review (NSR) program, stating that OAR is working on several actions. The first is adding regulatory text that allows for a plain language reading of the Clean Air Act under the Reclassification of Major Sources as Area Sources (MM2A) Under Section 112 of the Clean Air Act rule. In addition, the guidance for Plantwide Applicability Limitation (PALs) for NSR was posted on February 13th, and the comment period closed on March 16th. Ms. Idsal stated that the EPA will soon be issuing final guidance on that matter. Additionally, she stated that OAR is working to develop NSR training modules to address the training needs of state, local, and air agencies and these modules will be uploaded to the NSR website. The recently announced Radiation Advisory Committee will be asking for feedback on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) guidance and revisions. Ms. Idsal commented that the purpose of this work will be to reflect the current science, clarify methods, and define lessons learned. She then opened the floor to the CAAAC members for their questions and comments.

Comments and Discussion

Ms. Shannon Broome thanked Ms. Idsal for her remarks and asked two questions. Her first question was how quickly the EPA can act to finalize rulemakings, given the situation with COVID-19, particularly with regard to the NSR program. Her second question was regarding an RTR-related recent court case and whether or not flexibility still exists for gap filling beyond the upper predictive limit (UPL) approach.

Ms. Idsal responded that OAR is reluctant to attach a date to finalize any NSR guidance, as they do not want sacrifice content for the sake of expediency, but she assured Ms. Broome that the Agency is working diligently to finish it correctly and efficiently. In terms of the RTR case, Ms. Idsal noted that the Office of the General Counsel is weighing in on how to respond to that case. She added that the DC Circuit Court gave some direction, and the EPA wants to understand broader programmatic implications and how they can honor the decision of the court without creating unintended consequences.

Ms. Nancy Kruger inquired about President Trump's Executive Order on regulatory relief, noting that it encourages all agency heads to review regulatory standards, especially temporary standards that could be made permanent to help with the economic recovery from COVID-19. She asked Ms. Idsal if OAR has considered temporary programs that might become permanent regulatory actions.

Ms. Idsal responded that she has not yet discussed that with staff but has been thinking broadly about how the COVID-19 response has been driving human health and environmental standards, noting that there would be more information on that to come. Ms. Kruger urged the EPA to consult state and local agencies in this undertaking.

Mr. Andrew Hoekzema noted that based on documents available for both the ozone and PM NAAQS reviews, the previous NAAQS will apparently be retained. He stated that EPA is required to do a new round of designations whether it changes the NAAQS or not since there are areas that are violating the existing NAAQS that are not yet designated nonattainment. Mr. Hoekzema asked if the EPA will be conducting a new round of designations where there are new areas violating the standards.

Ms. Idsal stated that she would defer to Mr. Mike Koerber to answer Mr. Hoekzema during his presentation, noting that these are still at the proposal stage, and she anticipates the EPA receiving comments on this particular topic.

Ms. Gillian Mittelstaedt commented that she understands the Agency's desire to not put an unnecessary burden on industry to keep our economy thriving, but contended that the Agency must maintain the mindset that a burden also applies to households and communities, specifically environmental justice communities. She asked Ms. Idsal to prioritize Diesel Emissions Reduction Act (DERA) programs as an apolitical approach to increasing green, clean technology, stating that regardless of regulations, technology provides a way to move forward.

Ms. Idsal commented that the EPA will continue to work on the DERA front and others, noting that the DERA grant money has been put towards amazing uses.

Mr. Bob Meyers asked for an update on progress regarding an effort started last year to collect relevant guidance documents.

Ms. Idsal reported back that the deadline of June 27th is expected to be met through launching a guidance website, and the EPA has a tremendous amount of guidance they are planning on retaining. She continued by asking everyone to notify Mr. Shoaff if there are documents missing or contradictory materials.

OAR Regulatory Updates

Mr. Shoaff introduced Mr. Mike Koerber from the Office of Air Quality Planning and Standards to provide regulatory updates. Mr. Koerber indicated that he would give an overview of the Office's regulatory work, and then discuss technical work and work done with state air agencies.

Mr. Koerber began by discussing National Emission Standards for Hazardous Air Pollutants (NESHAPs) pursuant to Section 112 of the CAA. He noted that the office had finalized review for 20 source categories, with upcoming actions for 16 additional source categories. He also stated that there was activity related to the MATS emission standards in April and the review for Miscellaneous Organic Chemical Manufacturing (MON) will be completed by the end of May. Mr. Koerber went on to say that the office will finalize six additional reviews by the end of June, and there are nine more that the office is intending to issue proposals for by October of this year. He indicated that there is a court order to complete these nine reviews by October 2021. He also remarked that reducing ethylene oxide emissions remains a priority for this administration. Mr. Koerber finished his discussion of NESHAPs by noting that completing the MON was a significant step, and the office is now developing a proposal for commercial sterilization facilities.

In other regulatory updates, Mr. Koerber discussed the NSPS for oil and natural gas, in terms of both the policy package and the technical package. These packages are revisions to the 2016 NSPS and are moving forward, with an expected completion date of later this year. Mr. Koerber stated that the office finalized amendments in March for pellet fuel requirements for residential wood heaters and that the Administrator recently signed a short-term sales period extension due to COVID-19 stay at home orders. He noted that action would be in the Federal Register this week. In terms of test methods for residential wood heaters, Mr. Koerber commented that the EPA held a workshop in February and is hopeful that ideas from this workshop will culminate in a better test method when the standards are revisited in 2023.

Mr. Koerber stated that a PM proposal came out in mid-April, as mentioned by Ms. Idsal, and that a virtual public hearing is being held. He also mentioned that written comments would be accepted through June 29th. For ozone, Mr. Koerber noted that the EPA issued an integrated sciences assessment, and that the notice of a staff-developed policy assessment would be published in the Federal Register next week.

Mr. Koerber commented that the office is close to completing designations for the 2010 1-Hour Sulfur Dioxide NAAQS, and that they are due to be completed later this calendar year. In terms of newly violating areas, Mr. Koerber stated that the EPA will work with the states and affected facilities to determine the cause of the new violations to understand how to bring the affected areas back into attainment – designating these areas to nonattainment may or may not be the most expeditious path to attainment.

For technical activities, Mr. Koerber said that AirNow has been relaunched, noting its importance for providing data to the American public on air quality. The website underwent a refresh and the mobile app was upgraded. Mr. Koerber remarked that air monitoring is done in

strong partnership with state and local air agencies, which is one of the reasons the federal government provides technical support and financial assistance to those agencies. He continued by saying that the EPA intends to issue 10 to 20 grants of \$5 million in total for air toxics work, suggesting that grant solicitations focus on higher risk drivers for air toxics. He also mentioned targeted airshed grants, which is a substantial program of more than \$100 million for grants to improve air quality in the five most polluted areas for ozone and PM.

Mr. Koerber said that the final version of the 2017 National Emissions Inventory (NEI) with largely criteria air pollutants, but some air toxics information as well, was issued in April. He also noted that they are working on the Combined Air Emissions Reporting (CAER) initiative to combine multiple inventory reporting of the NEI, Toxics Release Inventory, Greenhouse Gas Inventory, and Compliance and Emissions Data Reporting Interface (CEDRI) into a single mechanism to reduce the burden on reporters and enhance data quality. Mr. Koerber explained that state pilot programs have been developed, but the project is still in the development phases.

Mr. Koerber finished his presentation by telling meeting attendees that the annual air trends report is now electronic, and that the EPA will be able to make it available soon. He also remarked that the EPA continues to support partnerships with states on permitting and State Implementation Plans (SIPs). Mr. Koerber then welcomed questions from meeting attendees.

Comments and Discussion

Ms. Kruger asked Mr. Koerber to discuss the recent NRPM to extend in the sell date for Step 1 residential wood heater in greater detail.

Mr. Koerber responded that this rule was in response to retailers losing selling time due to COVID-19. He noted that industry lost approximately 60 dates of the 5-year compliance period they had available and that the proposal aims to make up for that lost time. He elaborated that the EPA is proposing that industry will have until November 30th to sell Step 1 wood heaters once the rule is finalized, which will most likely become final in August or September. Ms. Kruger responded that if this rule takes effect, retailers will be given expanded selling time during the peak season. Mr. Koerber explained that the EPA was not able to do any impact analysis on that specific point of contention, but it remains uncertain what sales would have taken place in the absence of COVID-19 and reiterated that the legal sales period will take place between when the rule is finalized and November 30th.

Mr. Hoekzema commented that the previous administrator published a memo stating that the EPA would adhere to the five-year time period for NAAQS review. In light of that guidance, Mr. Hoekzema asked what steps the EPA plans to take in the future to compress the timeline from the current average timeline of eight to nine years.

Mr. Koerber responded that some of the NAAQS are on a slower review process, but the EPA is using these reviews to implement improvements based on coordination with the Office of Research and Development. He added that they did this for PM and ozone. He elaborated that expediting the review process and streamlining science will be critical to

meeting a five-year timeframe. He also noted that the upcoming Lead NAAQS review will contain a number of efficiencies that will help the EPA in meeting the five-year timeframe.

OAR Regulatory Updates (Continued)

Mr. Koerber introduced Mr. Ben Hengst, Associate Director of the Office of Transportation and Air Quality (OTAQ). Mr. Hengst began by stating that he would discuss regulatory actions on vehicles and engines, fuels, and other areas.

Mr. Hengst began by covering four rulemakings in the light-duty vehicle and engine sector. The first rule he discussed was the SAFE vehicles rule. He noted that this rule makes changes to the light-duty car and truck fuel economy and greenhouse gas standards. He elaborated that Part 1 was finalized in September 2019, and the EPA is currently being challenged on that rulemaking. Mr. Hengst also stated that Part 2 has been finalized and published. For the light-duty greenhouse gas program technical amendments, Mr. Hengst stated that the EPA had several mistakes in the 2012 regulation and issued a proposal to fix those, which was finalized. Mr. Hengst moved onto vehicle test procedures, telling meeting attendees that the EPA usually conducts tests using pure gasoline, but the market has switched to E10. When the EPA published the Tier 3 rulemaking in 2014, they signaled that they would examine changing the test fuel in terms of how that would impact emissions and greenhouse gases. An adjustment factor that does not impact the underlying stringency was published last week. Lastly, Mr. Hengst remarked that QTAQ plans to issue guidance with a proposed F-factor this summer. He explained that the F-factor is used as part of the calculations to determine an automaker's fleet average compliance with vehicle greenhouse gas standards.

Mr. Hengst then discussed the heavy-duty sector. He noted that OTAQ released a technical amendments package proposing changes to the test-procedures for heavy-duty engines and vehicles to improve accuracy and reduce testing burden. The comment period for this rulemaking closes on June 26th. He also touched on the CTLI, stating that OTAQ aims to issue an NRPM by the end of the year, following an ANPRM issued in January 2020 and based on comments from a variety of groups.

For the marine sector, Mr. Hengst discussed two actions. The amendments related to global marine fuel, namely the new low-sulfur standard, went into effect on January 1, 2020. Mr. Hengst also mentioned the amendments related to marine diesel engine emission standards, stating that rule is currently at OMB for interagency review. Mr. Hengst discussed two rulemakings concerning aircraft, the first of which was proposed greenhouse gas emissions standards and test procedures for aircraft and aircraft engines. The NRPM for this rulemaking is currently at OMB for interagency review. He also indicated that OTAQ will be publishing an NRPM for advancing clean aircraft engines and reforming test procedures for aircraft PM in the future.

Mr. Hengst provided an update on regulatory actions impacting fuels, starting with the 2020 Renewable Fuel Volume Annual Standards Rule (RFS), which was signed in December 2019,

and the 2021 RFS, which is currently at OMB for interagency review and due as a final rule on November 30, 2020. He also explained the Fuels Streamlining Rule, which aims to reduce over 1,000 pages of CFR text to approximately 200. This rulemaking has included robust public engagement and is currently open for comment until June 29th. OTAQ aims to complete the final rule by the end of 2020.

For other actions on fuels, Mr. Hengst mentioned that the EPA has faced litigation challenges, including on the E15 rule, 2019 Renewable Volume Obligations (RVO) rule, 2020 RVO rule, and others. He also stated that there are a number of petitions before the EPA, including a petition by several governors to waive volume obligations under the RFS due to severe economic harm, which the administrator has the authority to do if certain conditions are met. Additionally, the EPA is required to do a tri-annual report to Congress on biofuels, which is scheduled for release in 2021.

Mr. Hengst provided an overview of partnership programs, grant programs, and DERA funding. He gave specific examples of recent and upcoming DERA funding opportunities and offered to provide more details on the program during the next meeting, if interested. Lastly, Mr. Hengst discussed the Ports Initiative, saying that OTAQ recently released updated port and goods movement inventory methods and updated community-port collaboration tools. He also noted that several future actions are to come, including: operational strategy factsheets, an in-depth case study on the Clean Air Plan for the Ports of Los Angeles and Long Beach, a fuel cell technology assessment, and an enhanced best practices area of the EPA Ports Initiative website.

Mr. Hengst then took comments questions from meeting attendees.

Comments and Discussion

Ms. Kruger inquired about EPA's proposed vehicle test procedure adjustments for the transition from Tier 2 to Tier 3 certification test fuels, specifically an alternate regulatory approach on which the agency is seeking comment, which would reduce the stringency of EPA's light-duty vehicle CO₂ emission standards by, in the words of EPA in the proposal, a "not insignificant" amount." Mr. Hengst replied that during the interagency process, there was a robust discussion and stakeholders laid out their ideas. The EPA considered all ideas, but ultimately proposed an approach that is consistent with not impacting the underlying stringency of the standards. Ms. Kruger noted that her organization has concerns with the alternative approach in this area and stated that they will be submitting comments on the proposed rule.

COVID-19 Impacts, Response, and Air Issues

OAQPS Air Monitoring and Air Quality Update

Mr. John Shoaff introduced Mr. Chet Wayland from OAQPS to deliver a presentation on air monitoring and air quality during COVID-19. Mr. Wayland echoed Ms. Idsal's comments that staff have been phenomenal in maintaining monitoring networks during this time, and the EPA has tried to provide as much guidance as possible during this unprecedented event. Mr. Wayland

reiterated that monitoring networks were mission essential, but also that the safety of air monitoring staff remained critical. In spite of these challenges, the EPA lost only about 5 percent of their network, out of approximately 5,000 monitoring sites, and most of those 5 percent were non-regulatory sites. Though these sites were down for a period of time, Mr. Wayland announced that many of these sites have, or are in the process of, coming back online. In terms of the EPA's assistance, Mr. Wayland indicated that the Agency worked to provide QA/QC guidance, keep sites running, and maintain quality data. Additionally, his office provided weekly updates to Ms. Idsal and Administrator Wheeler on which parts of the country were offline.

Mr. Wayland then addressed how COVID-19 has impacted air pollution during this time and stated that the EPA has put tools on their website to illustrate this. Mr. Wayland used the examples of Washington D.C. and Los Angeles to illustrate how air pollution has changed over the past several months. He commented that Washington D.C. has had more good air quality days in 2020 than in previous years, and a similar story exists in Los Angeles. He cautioned, however, that better air quality is not uniform across the country or across the world. For instance, Los Angeles' air pollution spiked around May 1st, which did not happen in Washington D.C. He associated improved air quality with the shutdown and stay-at-home orders, but also noted that other factors were at play, such as unseasonably cooler temperatures in some areas. Mr. Wayland illustrated this by showing that as we got into late April and early May, temperatures were much higher than normal in Los Angeles and air quality metrics subsequently spiked. He warned that people not reach the conclusion that stay-at-home orders magically improved air quality, because that was not the case uniformly across the U.S. or the world. He ended by saying that the EPA is digging into the data to gather more information about this unique period in time and plans to use that information in the future. Mr. Wayland finished with questions and comments from meeting attendees.

Comments and Discussion

Dr. Adrienne Hollis asked a question related to COVID-19 air quality and the EPA's decision to use the enforcement discretion policy, wondering whether or not the EPA will be monitoring the impact of that decision on air quality.

Mr. Wayland replied that this is the Enforcement Office's domain, elaborating that much of the monitoring done at the state and local levels meets the EPA's requirements, and jurisdictions can engage in more monitoring if they choose. He also stated that the AirNow presentation on the meeting agenda would discuss air quality sensors in more detail, but that they cannot be used for regulatory decision making.

Mr. Hoekzema asked about 2020 being an NEI data collection year and possible concerns that the NEI from such an unusual year would not be representative of normal conditions and could not be used as a baseline.

Mr. Wayland replied that the EPA is conducting the 2020 NEI because it is imperative to understand what occurred this year, but also agrees that it may not be an appropriate baseline metric to use for regulatory applications. He continued by saying that the EPA is already having discussion about a collaborative inventory process for regulatory modeling purposes,

which was previously conducted in creating the 2016 inventory. This process will potentially be conducted in 2021 or 2022 to account for 2020 being an anomaly year.

Office of Radiation and Indoor Air – Indoor Environments Division

Mr. Vito Ilacqua discussed indoor air quality (IAQ) control measures and guidance during the COVID-19 pandemic, including increasing ventilation and exposures to increased amounts of cleaning products and disinfectants used to control or prevent the spread of COVID-19. Mr. Ilacqua elaborated on the difficult balance between controlling the infection, while also monitoring issues from increased use of cleaning products and disinfectants, particularly to those who are more sensitive to exposures or persons exposed due to their jobs.

As part of increased use of these chemicals, Mr. Ilacqua also cautioned that people may be using indoor chemicals for off-label use, increasing their chances of becoming airborne, and therefore reactions between cleaning products and ozone and nitrogen oxides from ambient air must also be considered and monitored. Lastly, Mr. Ilacqua reiterated that reducing infection by increasing outdoor air ventilation in indoor air environments is another element his office will be researching, because this topic was raised by the Science Advisory Board as a critical research need.

Comments and Discussion

Ms. Mittelstaedt noted that she works closely with the Indoor Air Division. She commented that one of the issues where the Agency could be more aggressive is the ventilation standards, especially in high occupancy dwellings that do not have HVAC systems or operable windows.

Mr. Ilacqua responded that having representative perspectives of different housing situations is very important to the Indoor Air Division. They would appreciate any information people want to share on that topic and will consider this as they move forward.

Connecting with Partners and Stakeholders: Requesting CAAAC Feedback on the Best Ways for the EPA to Get Public Input Virtually

Mr. Jonathan Lubetsky asked committee members for their input regarding hosting meetings in a virtual environment, when meeting in person is impossible. He gave examples of several recent uses of technology by the Agency, for instance holding the PM NAAQS public hearings virtually and also allowing people to call in or utilizing Teams for today's meeting, which allows people to connect with both audio and visual elements.

He posed several questions to the group:

- Is the platform we are using today, Teams, an effective way to hold this and similar meetings?
- Are there better platforms or features that EPA should use?
- Are there suggestions for how best to conduct a Virtual Public Hearing?

- Are there lessons from this or other experiences that we should keep in mind for continued engagement and the post-COVID future?
- Other thoughts and suggestions

Mr. Lubetsky then opened the floor for discussion.

Comments and Discussion

Dr. Hollis commented that not everyone has broadband access, which is one of the issues that communities are having with keeping their citizens up-to-date on COVID-19 information. Virtual meetings make participation more difficult for the computer illiterate and the elderly.

Mr. Lubetsky noted that the EPA is taking into account those concerns and wants access for everyone, acknowledging that different technologies are appropriate for different settings and groups.

Mr. Tomas Carbonell remarked that the questions posed are important. He commented that his organization, the Environmental Defense Fund, has communicated to EPA that there is no perfect way to engage in public hearings, but has asked that EPA provide multiple platforms for public engagement, including telephonic opportunities as well as livestream video formats for folks who have internet access. In response to fourth question, Mr. Carbonell commented that he recently submitted a letter to the docket for the proposed PM NAAQS standard, which was joined by many other environmental and health NGOs, and for which many organizations indicated that the 60-day comment period was woefully inadequate. Mr. Carbonell urged EPA to provide sufficient time for the public to weigh in.

Mr. Clay Pope thanked Mr. Lubetsky for putting together today's meeting but stated that he prefers to meet in person, due to the importance of social interaction among CAAAC members. He hoped that these meetings do not become virtual only.

Mr. Ted Steichen commented that the virtual public hearings are a new experience and different in terms of access issues from in-person hearings, which require people to travel. He urged the EPA to look at technology in the future as a way to provide a richer experience and wondered if the Agency should consider more robust technology infrastructure, citing a speaker during the PM NAAQS public hearing having phone line difficulties.

Mr. Hoekzema noted that there are important qualitative and dynamic difference between in-person meetings and virtual meetings. He encouraged the EPA to host the CAAAC meeting and other advisory committee meetings in-person in the future, if they can be conducted safely. He also noted that there are opportunities for the EPA to expand the use of technology in soliciting meaningful input from CAAAC members. For instance, for these meetings, the EPA could send a list of questions that they want feedback from the CAAAC on. Members could then fill out an online survey prior to the meeting to improve and create a more robust dialogue.

Ms. Mary Uhl commented that she is appalled at how the CAAAC committee has degraded over the last few years in terms of becoming relatively meaningless engagement. She stated that it is

not about the technology, but about the message she is receiving from the Agency, which is that the EPA does not value CAAAC member input on CAA regulations that affect our communities.

Mr. Steichen did not want to criticize the Agency but did echo concerns that not as much subcommittee work was ongoing now as in the past. From his point of view, he appreciates the access that meetings afford him to other stakeholder points of view, which is why he thinks working together is valuable. He suggested that the EPA put more energy into the CAAAC and expected more in return.

Ms. Mittelstaedt expressed that in the past, the subcommittees were the wheelhouse of the CAAAC, because industry, NGOs, states, and other interested parties worked side-by-side to advance the implementation of the CAA in a way that suited everyone. She recommended that the EPA provide staff support to the CAAAC and subcommittees regardless of political administration. She noted that subcommittees produce valuable work and should be staffed, promoted, and supported.

Mr. Hoekzema commented that much of the time during these meetings is spent by CAAAC members only listening to EPA, rather than engaging and allowing members to provide insight and suggestions. He suggested that virtual meetings could be used for subcommittee work and also that scheduling smaller group meetings ahead of time might improve discussion at the larger CAAAC meetings.

Mr. Shoaff noted that the EPA is currently planning to have an in-person meeting in the fall.

AirNow Program

Mr. John White in OAQPS provided an update on upgrades and improvements made to the AirNow program. He summarized that AirNow is a voluntary, 20+ year old program, in which tribal, local, and state agencies deliver air quality data to the EPA, and AirNow provides it to the public. Their role is to be transparent and share all of the data provided to them. Mr. White noted that they also collect data from all of the U.S. embassies across the world. He stated that AirNow upholds the EPA's mission of protecting public health by providing air quality information to the public.

Mr. White explained that the AirNow site was updated in 2018, but traffic on the site due to the California wildfires crashed the site and made the EPA examine their technology and infrastructure. The new website was created on the cloud and went live on April 15th. Mr. White said that the new website provides greater capability for the public to explore air quality in their area.

The AirNow program also hosts a mobile application, which Mr. White described as matching the look and feel of the website, while giving people the flexibility to access it on their phones. He said that the app will become active in the next few weeks and continual development cycles will update the app and keep content fresh. During the late summer/early fall timeframe, Mr. White expects the EPA to add an air quality map to the app and provide notifications. The EPA is also planning an AirNow sensor data pilot partnership with the U.S. Forest Service in the future.

Comments and Discussion

Mr. Steven Flint commented that there is poor air quality data at the state-level from sensors and wants to know how the EPA plans to control for poor data.

Mr. John White responded that the EPA's hope is to update the map three to four times an hour, so the AirNow data may be an hour old, but the sensor data will provide a more recent look. The data will be aggregated and adjusted to account for poorer quality data points. The EPA will take feedback from states on improvements and will work with the Forest Service to implement those changes. Mr. White continued by saying that the public tool will not include sensors from a person's state unless they select that feature. He also noted that the AirNow team will schedule webinars on its functionality for mid-June.

Mr. Steven Marcus asked if there was a way to add pollen and mold counts.

Mr. White replied that the EPA does not collect pollen or mold data, but it is a consideration for the future.

Ms. Mittelstaedt commented that it is helpful to have adjusted PurpleAir sensor values available in real time as people utilize indoor purple air sensors to track indoor intrusion of wildfire smoke.

Mr. Shoaff commented that the EPA would let all CAAAC members know of dates and times for upcoming webinars on AirNow.

50th Anniversary of the Clean Air Act: Report Concept & Path Forward

Mr. Shoaff acknowledged comments on how to better utilize the CAAAC and provided the idea of a 50th anniversary report on the Clean Air Act. He stated that this would entail receiving CAAAC input on accomplishments and remaining and future challenges. He provided a vision for the organization of the report, including two sections and two workgroups each working on one of those sections with co-chairs. Mr. Shoaff said that the EPA is hoping to utilize technology as needed to work intersessionally over the summer, with the intent to complete the report before the Fall CAAAC meeting and present and discuss it then for finalization.

Mr. Shoaff welcomed feedback, noting that he hopes to refine the outline more and provide that to the CAAAC within the next month to kickstart the work on this report. He requested that group members reach out to Mr. Weinstock or himself if they are interested in participating. He also stated that he would send a follow up email with specifics, charge questions, and timeframes involved. Several committee members expressed interest in participating in the development of the report during this portion of the meeting, with some requesting additional information on the scope. Those that expressed interest included: Tomas Carbonell, Gail Good, Adrienne Hollis, Gillian Mittlestaedt, Dan Nickey, Clay Pope, Vernon Morris, and Ted Steichen.

Mr. Shoaff also mentioned that the Clean Air Act Awards application period opened, and the EPA will be looking for members to review applications later this summer. Mr. Shoaff then opened the meeting for public comments.

Public Comments

No public comments were made.

Final Remarks and Adjourn

Ms. Broome commented that when she was appointed to the CAAAC, she was informed that this Administration wanted to provide a more active role for the CAAAC. She also noted that there are many knowledgeable and diverse committee members who share and provide recommendations after leadership has left the meetings, and therefore the EPA leadership may not be receiving the advice that the CAAAC is providing. She requested that the EPA think about how to invigorate the exchange process in a way that is helpful to the Agency. She pushed to have that be a point of discussion at the next meeting and urged the EPA staff to give that suggestion to Ms. Idsal, Ms. Broome finished by stating that subcommittees should be better utilized and that she appreciated the thoughtfulness of today's presentations.

Mr. Shoaff acknowledged that the EPA has several follow-up items from today's meeting. He thanked everyone for presenting at and attending the meeting, especially due to current circumstances. He closed by saying that the EPA would be in touch regarding follow-up matters and is looking forward to an in-person meeting in the Fall.

Mr. Weinstock officially adjourned the meeting and thanked everyone for their time and participation.

Appendix

CAAAC Meeting Attendance List	
Committee Members	
Name	Organization
Dr. William Bahnfleth	Penn State University
Shannon Broome	Hunton Andres Kurth
Tomas Carbonell	Environmental Defense Fund
Natalene Cummings	Forest County Potawatomi Community
Veronica Figueroa	Mosaic Fertilizer
Jeremy Fincher	Sac and Fox Nation
Steven Flint	New York Department of Environmental Conservation
Gail Good	Wisconsin Department of Natural Resources
Sara Hayes	American Council for an Energy-Efficient Economy
Mitchell Hescox	Evangelical Environmental Network
Bob Hodanbosi	Ohio Environmental Protection Agency
Andrew Hoekzema	Capital Area Council of Governments
Dr. Adrienne Hollis	Union of Concerned Scientists
Timothy Hunt	American Forest and Paper Association, American Wood Council
Anne Idsal	Acting Assistant Administrator, USEPA/OAR
Elizabeth Jacobs	Akwesasne Housing Authority
Gary Jones	Specialty Graphic Imaging Association Foundation
Nancy Kruger	National Association of Clean Air Agencies
Dr. Steven Marcus	Rutgers University
Eric Massey	APS
Robert Meyers	Crowell and Moring
Gillian Mittelstaedt	Tribal Healthy Homes Network
Dr. Vernon Morris	Howard University
Daniel Nickey	Iowa Waste Reduction Center Business and Community Services
Donald Peters	Community Against Pig Pollution and Disease
Mary Peveto	Neighbors for Clean Air
Clay Pope	Consultant
Frank Prager	Xcel Energy Inc
Kris Ray	Confederated Tribes of the Colville Reservation
Maria Robinson	Massachusetts House of Representatives
Kimberly Scarborough	Public Service Electric & Gas
Dr. Max Sherman	Lawrence Berkeley National Laboratory
John Shoaff	U.S. Environmental Protection Agency
William Spratlin	Aptim Environment and Infrastructure
Ted Steichen	American Petroleum Institute

Vickie Sullivan	Duke Energy
Mary Uhl	Western States Air Resources Council
T.J. Wallington	Ford Motor Company
Larry Weinstock	U.S. Environmental Protection Agency, OAR
Robert Wyman	Latham and Watkins, LLP, National Climate Coalition
Other Attendees	
Julie Ackerlund	Montana Department of Environmental Quality
Jim Blubaugh	U.S. Environmental Protection Agency
Dan Chartier	National Rural Electric Cooperative Association
Isabel DeLuca	U.S. Environmental Protection Agency
James Derr	West Virginia Department of Environmental Protection
Phil Dickersokln	U.S. Environmental Protection Agency
Sarah Dunham	U.S. Environmental Protection Agency
Chris Frey	North Carolina State University
Alex Guillen	Politico
Ben Hengst	U.S. Environmental Protection Agency
Vito Ilacqua	U.S. Environmental Protection Agency
James Jarrett	West Virginia Department of Environmental Protection
John Kinsman	EEF
Cathe Kalisz	API
Chris Knight	
Mike Koerber	U.S. Environmental Protection Agency
Jonathan Lubetsky	U.S. Environmental Protection Agency
Anne Mellinger	Mothers and Others for Clean Air
Gary Napp	ERM
Tony Pendola	North Carolina Department of Environmental Quality
Lorraine Reddick	U.S. Environmental Protection Agency
Spencer Rhee	
Leslie Ritts	NEDA/CAP
Dave Rowson	U.S. Environmental Protection Agency
Abigale Tardif	U.S. Environmental Protection Agency
Richard (Chet) Wayland	U.S. Environmental Protection Agency
Linda Wilson	
Contractor Support	
Lesley Stobert	SC&A, Inc.
Allison Owens	SC&A, Inc.