

Pennsylvania Department of Environmental Protection
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING
 Minutes 3/9/2023

Air Quality Technical Advisory Committee (AQTAC or Committee) Members Present (via Teams or in-person)

Rob Altenburg	<input checked="" type="checkbox"/>	Shaun Vozar	<input checked="" type="checkbox"/>	Michael Nines	<input checked="" type="checkbox"/>	John Slade	<input checked="" type="checkbox"/>
Scott Brown	<input checked="" type="checkbox"/>	Joseph Guzek	<input checked="" type="checkbox"/>	Edward Wiener	<input checked="" type="checkbox"/>	Kevin Stewart	<input checked="" type="checkbox"/>
Kimberly Coy	<input type="checkbox"/>	Christine Heath	<input checked="" type="checkbox"/>	Marianne Payne	<input checked="" type="checkbox"/>	John Tissue	<input checked="" type="checkbox"/>
Joseph Duckett	<input checked="" type="checkbox"/>	Michelle Homan	<input checked="" type="checkbox"/>	Richard Shaffer	<input checked="" type="checkbox"/>	John Walliser	<input checked="" type="checkbox"/>
Josephine Gaskey	<input type="checkbox"/>	Charles McPhedran	<input checked="" type="checkbox"/>	John Shimshock	<input checked="" type="checkbox"/>	*Joined after roll call	

CALL TO ORDER & ADMINISTRATIVE ITEMS

Vice Chair Joseph Duckett convened the meeting at 9:15 am. He chaired the meeting for John Tissue. He announced that Jamie Graham retired and introduced two new members; Shaun Vozar and Edward Wiener. Further, he referenced Krish Ramamurthy’s retirement and announced Ali Tarquino Morris as the Acting Deputy Secretary. Lastly, he informed AQTAC of the upcoming appointments for the next two-year term. DEP will provide additional communication with further details.

Approval of Minutes

Joseph Duckett had one comment on page 5 regarding monitoring locations for drilling sites. He suggested that Washington County was missed. He asked that DEP check this. He requested a motion to accept the minutes as prepared. Kevin Stewart so moved. Scott Brown seconded. Charlie McPhedran asked for an update of status of the Regional Greenhouse Gas Initiative (RGGI) litigation. Joseph Duckett suggested that this be discussed near the end of the meeting. Joseph Duckett, hearing no opposition, so moved to approve the minutes as written.

PRESENTATION

Tom Muscenti from Trinity Consultants gave a presentation on the EPA Methane Rules.

Discussion

Joseph Duckett asked if a zero-emission requirement was defined in the proposed rule. Tom Muscenti responded that zero emissions is a standard that natural gas will not be emitted to the atmosphere. There are many ways to achieve that: avoiding the use of natural gas to power equipment, recover gas that might be vented to that atmosphere for use on-site as fuel, and self-contained equipment that does not vent to the atmosphere.

Kevin Stewart asked if the EPA rule is adopted “as-is,” what would that mean in terms of emission reductions from the oil and gas sector in Pennsylvania. Tom Muscenti did not know the specific number for Pennsylvania. One of the largest emission sources in the industry is natural gas-powered equipment. Going to zero emissions will represent a significant reduction in methane emissions. Kevin Stewart clarified his question, for a two or three standard cubic feet per minute allow leak rates, those amount to 20 to 30 metric tons per year. He was trying to understand the universe that would be impacted by this.

PRESENTATION

Edwin LaMair, Environmental Defense Fund, gave a presentation on Methane Emissions Reduction Program.

Discussion

There were no questions for Edwin LaMair.

PRESENTATION

Sean Nolan, Environmental Group Manager, Bureau of Air Quality (BAQ) gave a presentation on Methane Overflight Study Overview.

Discussion

Mark Hammond, BAQ Director, provided comments:

- Reminded participants that AQTAC members are participating and commenting in chat. The general public has opportunity to comment during a public comment period that was advertised as part of this meeting to provide public comment.
- All discussion of the data represents plumes of 100 kg/hour or higher. Although the technology can detect lower values, 100 kg/hour was used because it's a standard number and provided a perfect sample size.
- Some sources were expected, i.e., agriculture; however, the technology did not detect these emissions. This technology (Carbon Mapper) detects plumes; it does not detect large areas of lower emissions (area sources).
- This was a research project. It was not intended to be an inventory exercise.
- DEP is delighted to have obtained a 10% reduction, as there was no regulatory mandate to participate.
- DEP did not fly over the entire state. Four polygon areas were identified: (1) One control area where DEP expected to find little or no methane emissions, (2) Three areas where DEP expected methane emissions.
- Line flights were performed over landfills to obtain a methane emission plume profile to increase the sample size for landfills.
- Precision varies from plume to plume. There are many factors to consider other than calculation errors. For example, conditions in the field represent a significant source of error.
- In the California campaign, multiple overflights were performed at significantly varied times. Some of these overflights included a boots-on-the-ground complement. California has performed several additional overflight campaigns in parallel to working with sources in efforts to lower methane emissions. The data is representative of data collected over iterative campaigns. Data collected in DEP's study represents information collected during a single overflight project and does not include a boot-on-the-ground complement.

AQTAC Minutes 3/9/2023

- The 100 kg/hour and above included: (1) every coal mine vent, (2) 100 out of 10,000 oil and gas sites. Carbon Mapper did not detect methane emission plumes at some landfills, oil and gas sites and all agricultural sources. Given this information, caution is advised when comparing numbers across these industries.

Question: Why was Area 4 chosen and not Lycoming County? Sean Nolan identified Area 4 as the Schuylkill County region, based upon his recollection of the study. He noted that there is a lot of legacy coal in that area. DEP wanted a control area, but also wanted to see if there were any methane emissions from these legacy coal areas.

Question: Was the oil and gas industry alerted to air testing dates? Mark Hammond responded that there was no notification provided for two reasons. First, providing advance notice was not practical. Second, advance notification may alter data findings and, thus, would not be aligned to data collection associated with a research project.

Question: What happened with DEP's engagement with coal mines? Why did these sources not participate in reductions? Mark Hammond responded that one of the companies, CONSOL Energy, was very hostile. DEP offered every operator that had a plume an opportunity to meet to discuss the project and review the data. DEP asked the operators to find the emissions in the field and, if possible, to reduce them. The coal industry met with DEP to hear the presentation. DEP asked the coal industry to consider investigating methane plumes originating off-site. Follow-up correspondence with DEP from the coal industry has been from outside counsel.

John Walliser asked if DEP would be posting the data on-line. Mark Hammond responded that Version 1 of the report was shared with operators that cooperated. The final version of the report will be posted next week. Sean Nolan indicated that the Carbon Mapper website had some of the data available.

John Walliser asked if this would lead DEP to establish controls on landfill and mining operations. Mark Hammond responded that this is a research project and the data would require many years to analyze. For example, DEP needs to understand whether oil and gas methane emission were persistent or intermittent. Mark noted that four or five new best practices were developed. The landfill industry identified one best practice based upon discovery obtained from the data collected during this study. DEP is hoping to do outreach with those companies that provided these best practices. Mark noted cooperative vs enforcement approaches used to achieve emission reductions. He indicated this was a research project that confirmed DEP's calculation that a cooperative, voluntary approach will drive more methane emission reductions when compared to the enforcement approach.

AQTAC Minutes 3/9/2023

Kevin Stewart applauded the idea that this has had the added benefit of discovering and implementing solutions. Kevin asked how DEP confirmed that the reported reductions occurred. Additionally, Kevin asked how DEP confirmed the long-term persistence of these reductions. Mark Hammond responded that in terms of the long-term persistence, California's program performs flights every year to gather data for comparison to methane data collected from previous campaigns. Mark also noted larger oil and gas operators are subject to Leak Detection and Repair, (LDAR) and fixing leaks per their LDAR schedule. Mark also noted the more stringent oil and gas VOC rules. Mark noted that between when DEP performed the overflights and when boots-on-the-ground were deployed, several emission points had been repaired because of the LDAR program. Landfills have similar programs. Mark noted that the West Moreland landfill was the only landfill in the study that had emissions of 100 kg/hour from the working face. DEP is uncertain of the reason for this. There were several open-top leachate tanks that were overflowed, but only two triggered the 100 kg/hour emission threshold with West Moreland landfill being one of them. DEP also used a lot of the persistence data from the ground, i.e., truck-loading event vs a pipe. The operators also submitted to DEP emission points that were repaired. Mark notes that the reported reductions were very conservative, and that several reductions that could not be quantified were entered as zero. Sean Nolan noted that DEP could at some point in the future perform additional overflights. He also noted that Carbon Mapper technology could be added to satellites, which would allow for additional data collection. Mark Hammond noted the additional costs associated with this.

Kevin Stewart asked about the best practices that have occurred to achieve these reductions. He asked DEP to outline a few. Mark Hammond indicated that this response would be very technical. Mark noted an example of a landfill that used their surface emission data to detect a methane emission plume near the haul road. The landfill operators investigated the root cause and discovered opportunities to improve the design methods for installation of the liner in the haul road area. The operators implemented changes to the installation design to eliminate this methane emission source.

Christie Heath asked if DEP or other organizations would have access to methane emissions data collected from satellites. Mark Hammond responded that methane data collected using satellites would likely be available in the next three to five years. Mark mentioned that DEP is analyzing the current data set. Sean Nolan noted that Carbon Mapper would not be installed on the satellites, rather it would be the spectrometry equipment that would be installed on the satellite

John Tissue noted that this study was very helpful.

Question: Can DEP provide a list of companies that made improvements to reduce methane emissions as well as identify the specific improvement? Mark Hammond responded that best practices would be rolled out in a public format, i.e. conferences. Subject-matter experts would be presenting these best practices. Mark noted that this was a research project. He indicated that information is available using a Right-To-Know request.

PRESENTATION

Kirit Dalal, Division Chief, DEP, gave a presentation on Rulemakings/State Implementation Plan (SIP) Revisions

Discussion

Joseph Duckett asked for an update on RGGI. Mark Hammond responded that it's moving through the courts. One court case has been held. DEP is waiting on a decision from Commonwealth Court. The program is stayed.

Joseph Duckett asked for DEP to comment on their current view of air emissions related to East Palestine, OH. Mark Hammond responded the Ohio EPA and federal EPA Region 5 are taking the lead as the incident is within their jurisdiction. Within Pennsylvania, the Department of Health, DEP and the Pennsylvania Emergency Management Agency (PEMA) are taking the lead. Both the Governor and the DEP Acting Secretary are involved. Although this is a big national story, Mr. Hammond noted that Exxon Valdez, Horizon Gulf of Mexico and the VW scandal had similar or higher environmental impacts. Mr. Hammond is comfortable with DEP's response.

John Tissue asked if Pennsylvania submitted a Good Neighbor SIP. Kirit Dalal responded that EPA denied Transport SIP submissions from several states. Pennsylvania did not submit a Transport SIP; rather, DEP is working on an attainment demonstration for the Philadelphia area.

Christie Heath asked about the regulatory impacts of the ozone redesignation from marginal to moderate and whether that is going to have any regulatory impacts to facilities, i.e., RACT review or changes to New Source Review (NSR) thresholds. Mark Hammond responded that the short-term answer is "No." The Ozone Bump-up SIP revision will not include any new regulations. It will contain contingency measures that would go into effect should the area not meet the goals. This SIP is under a very strict timeframe.

John Shimshock asked if DEP generated design values for the 2022 air monitoring data for the 2015 ozone NAAQS. Sean Nolan responded that DEP updates the design values after the data are certified on May 1, 2023. DEP is in the process of updating the website and will provide updated design values once the data are certified. The data certification finalizes the 2022 data not only for ozone, but also PM2.5, SO2 and other criteria pollutants.

OLD & NEW BUSINESS / OPEN DISCUSSION

Joseph Duckett opened the meeting for other AQTAC business/open discussion.

Old Business:

Plan Approval Application Forms

Joseph Duckett suggested that the review of these application forms be an agenda topic for a future meeting. Sean Wenrich, NSR Section Chief, BAQ, thanked the AQTAC members for their review. Sean noted that BAQ found the comments extremely valuable and is taking the comments under advisement. The goal is to ask for information that is necessary.

AQTAC Minutes 3/9/2023

Joseph Duckett referenced the Department of Health and University of Pittsburgh oil and gas health-effects study that is ongoing. He is not aware of any report to-date, but he will follow-up on this.

New Business:

Next AQTAC meeting is May 4, 2023.

MOTION TO ADJOURN

With no further business before AQTAC and no member opposing, Joseph Duckett adjourned the meeting at 12:15 pm.

Minutes prepared by Joseph Martini, Air Quality Program Specialist (AQPS). For additional information about AQTAC, please contact the AQTAC Liaison (RA-EPAQTAC@pa.gov) or by visiting the AQTAC Web page at:

<http://www.dep.pa.gov/Business/Air/BAQ/AdvisoryGroups/Air-Quality-Technical-Advisory-Committee/Pages/default.aspx>