

**Pennsylvania Department of Environmental Protection  
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING**

Minutes  
August 15, 2019

**Air Quality Technical Advisory Committee (AQTAC) Members Present**

Michael Winek	Patrick O'Neill
Gary Merritt	John Shimshock
Judy Katz	Robert Altenburg
Jayne Graham	Michelle Homan
Joseph Duckett	Josie Gaskey
Kevin Stewart	John Tissue
Joseph Guzek	Kimberley Coy

**Department Staff Present:**

Kirit Dalal	Allen Landis
John Krueger	David Clark
Krishnan Ramamurthy	Bo Reiley
Naishadh Bhatt	Jesse Walker
Hitesh Suri	Nancy Herb
Susan Hoyle	Lucas Hershey
Jennie Demjanick	Susan Foster
Sean Wenrich	

**Others Present:**

Jeremy Hancher – PASBDC/EMAP	Leda Lacomba – PA House
Terry Black – ERM	Bill Kesack – Compliance Mgmt. Inc.
Tom Schuster - Sierra Club	

**CALL TO ORDER**

Patrick O'Neill, AQTAC Chair, called the August 15, 2019, meeting to order at 9:15 a.m. in Room 105 of the Rachel Carson State Office Building, 400 Market Street, Harrisburg.

**ADMINISTRATIVE ITEMS**

Introductions were made by AQTAC members and the audience. Patrick O'Neill welcomed and introduced three new members appointed to the committee.

*Approval of Minutes*

The minutes of the April 11, 2019 meeting were discussed by the AQTAC members. The minutes were approved by a vote of 9-0-3. Kevin Stewart commented that the minutes were written thoroughly and Patrick O' Neill agreed.

Patrick O' Neill mentioned the election of the committee Chair and Vice-Chair and asked for the recommendations from the committee on the approach to follow for the selection for the Chair and Vice-Chair for the new term of AQTAC.

## **INFORMATIONAL ITEMS**

### *Draft Final Rulemaking for Pa. Code Chapters 121 and 127 – Additional Requirements for PM<sub>2.5</sub> in the Nonattainment New Source Review Program*

Sean Wenrich provided an overview of the Proposed Draft Final Rulemaking for Pa. Code Chapters 121 and 127 – Additional Requirements for PM<sub>2.5</sub> in the Nonattainment New Source Review Program.

Joseph Duckett asked who the Clean Air Board is. Sean Wenrich responded that is an organization, which was noted in the commentator letter; Susan Hoyle mentioned that the organization is located in Carlisle, PA.

Kevin Stewart mentioned that he is familiar with the organization. Previously, it was known as the Clean Air Board of Central PA. Mr. Stewart provided a brief background of the organization and its operation.

Joseph Duckett asked if there are any facilities in Pennsylvania that would trigger the ammonia threshold by virtue of ammonia slip from SCR (selective catalytic reduction). Sean Wenrich responded that during the rulemaking, DEP identified facilities which will meet the major source threshold of 100 tons in three counties; however, this rule will only be triggered if the facilities made any major modification that would increase ammonia emissions by 40 tons/year in the future. DEP does not have any indication that any facility currently anticipates such a modification.

Robert Altenburg inquired about the geographical area where those sources are located. Sean Wenrich responded that the three counties are Delaware, Lebanon and Allegheny Counties.

John Shimshock asked if DEP is corresponding with EPA about the finalization schedule to avoid any imposition of sanctions. Sean Wenrich responded that DEP has been in communication with EPA from early in this rulemaking, and as well as during the redesignation requests.

Jayne Graham commented that the Allegheny County regulation (redesignation request and maintenance plan) is already finalized and has been sent to EPA for approval.

Kevin Stewart mentioned that his understanding is that Delaware and Lebanon Counties were both recently redesignated as attainment areas. Sean Wenrich clarified that redesignations have been proposed but are not finalized yet. Mr. Stewart asked what the time frame is for the finalization. Sean Wenrich explained that the comment period ends on August 15, 2019. Krishnan Ramamurthy clarified EPA will receive the comments and publish responses with the hope to finalize the redesignations before end of the year.

Joseph Duckett inquired about the number of large sources of ammonia. Sean Wenrich responded that, as mentioned before, there are three sources that emit 100 tons/year or more. Mr. Wenrich stated that he is not sure at this time what the facilities are, but that they are not related to SCR, as SCR ammonia slip amount generally doesn't make it to the major source level.

Patrick O'Neill asked if there were any further questions or comments from the committee or anyone in the audience before the committee votes on the rule. No additional comments were made.

The committee voted on the recommendation for DEP to proceed with submitting the Draft Final Rulemaking for Pa. Code Chapters 121 and 127 – Additional Requirements for PM<sub>2.5</sub> in the Nonattainment New Source Review Program to the EQB. The committee approved the recommendation by a vote of 11-0-2.

Patrick explained the AQTAC election procedures and asked for volunteers to form a subcommittee to take nominations and run the election. Josie Gaskey, Joseph Guzek and Robert Altenburg expressed an interest in volunteering.

*Report on Rulemakings / State Implementation Plan (SIP) Revisions*

Kirit Dalal provided an update on rulemakings and SIP revisions.

Joseph Duckett inquired about DEP's plan and the next step on the comments received for the Title V and Operating Permit Fees rulemaking package. Patrick O'Neill partially responded by stating that normally, once DEP prepares the comments/response document, the rulemaking takes effect. Krishnan Ramamurthy responded that, yes, that is the normal process but, in this case, DEP is responding to the comments first and will then make a decision on how to proceed with the rulemaking. DEP will need to evaluate what kind of comments are received. DEP will have that information in the next meeting.

Mr. Duckett asked, in case there is a reduction of Title V facilities, whether there is a consideration to recalculate and evaluate the revenues generated from this fee by DEP as a result of shrinkage and require any type of adjustment. John Krueger responded that DEP took that into consideration when the fee package was developed. DEP took the projected declining number of Title V facilities into account and tried to project the impact of the reduction in the number of the facilities.

John Tissue asked if DEP will reconsider the fee increase or reevaluate the rule based on the comments received. Krishnan Ramamurthy responded that DEP will prepare the comments/response document and is not at that point yet.

Joseph Duckett stated that his comment is not directly related to the air monitoring network. Mr. Duckett stated that he recalled from time to time it had been discussed in prior meetings that the Department of Health (DOH) occasionally conducted 'thorough studies' of the health effects of having an oil or gas well nearby. Mr. Duckett asked what had happened with those studies and stated that he had never seen the results. Jessica Shirley responded that DOH was creating an inventory by taking people that were referred to them, if those people thought their health-related issues was related to oil and natural gas emissions, but did not think DOH was doing a complete study, but was not sure. Ms. Shirley mentioned that DEP meets with the DOH regularly on this but did not think that DOH did a study. Krishnan Ramamurthy noted that there's no health assessment initiative he's aware of.

Kevin Stewart made a comment that several years back DOH announced that they will look into the issues of health effects from oil and natural gas and share the outcomes, but nothing was ever distributed. Jessica Shirley stated that DEP can reach out to DOH and find out if they have anything to share with DEP.

Kirit Dalal made a comment that when he worked in ambient air monitoring, DOH would request the data and DEP would provide it to them. This is all Mr. Dalal remembered, and he is not sure if results were ever provided.

Kevin Stewart stated that it is important for this committee to be presented with at least a summary of the inventory from DOH, and not necessarily some sort of conclusions, which certainly would be ideal. Jessica Shirley responded that DEP can reach out to DOH and find out if they have anything to share. Mr. Stewart stated that DOH should be able to share at least the information for the affected areas/counties and the health effects without loss of any confidentiality. At the same time, for the committee not to have anything is not really appropriate.

Patrick O'Neill commented that this type of information would be great to have or any information DOH has would be beneficial. Mr. O'Neill did not think that DOH will ever volunteer to share such information with the public.

Patrick O'Neill acknowledged that there are known environmental consequences (from oil and gas wells) but stated that information about the health effects would be good to have. Mr. O'Neill requested DEP to find what information is available and share with the committee.

Patrick O'Neill asked if there are any further questions or comments.

*Transportation and Climate Initiative of the Northeast and Mid-Atlantic States*

Jessica Shirley provided the update on Transportation and Climate Initiative (TCI) of the Northeast and Mid-Atlantic States.

Josie Gaskey asked why the effort didn't use a NO<sub>x</sub> approach as opposed to a greenhouse gas approach. Jessica Shirley responded that they (TCI) is looking at it as transportation is number 2 with regards to greenhouse gas emission in the country and number 3 in PA. Regional Greenhouse Gas Initiative (RGGI) evaluated carbon and TCI would use carbon as well. These two initiatives use carbon because they aim to combat climate change.

Ms. Gaskey stated that it looks like Connecticut (CT) is getting a pass. Ms. Gaskey mentioned that majority of emissions in CT are from transportation compared to Pennsylvania which is more industrial. Ms. Shirley explained that effort is really being led by Massachusetts. The Massachusetts Governor said that it is his signature environmental initiative; Maryland is also taking really strong voice. Pennsylvania is different than most of the other states because Pennsylvania is more rural than other states, so DEP is trying to make sure that that is what people are hearing about, at least from Pennsylvania. There's a lot of discussion around equity and environmental justice. Ms. Shirley stated that DEP keeps saying that, in Pennsylvania, equity and the environmental justice will be around for those who do not have any other transportation options

except for the gasoline. That needs to be modelled and factored into the design, whether or not that is a direct consumer (benefit, rebate) subsidy for those people who have no other options for transportation except for gasoline powered vehicles.

John Shimshock stated that it was mentioned about the inventory across the country and in one of EPA's document, the transportation sector is the number 1. There was discussion among the committee on where transportation ranked as a pollution source in 2016 and 2017 based on the referenced EPA report. Ms. Shirley mentioned that DEP has the most recent greenhouse inventory which is from 2015. Mr. Shimshock mentioned that EIA data shows that PA is number 2. Ms. Shirley asked for clarification if it is 2016 or 2017 data. Mr. Shimshock responded that it is 2017 data. Ms. Shirley stated she was unaware that 2017 data was available.

Mr. Shimshock referred to the earlier conversation about fuel economy standards and referenced the 'battle' between the interested parties. Mr. Shimshock asked if DEP had considered these ongoing issues and the battle it may face in its decision to move forward on these actions. Ms. Shirley stated stakeholder outreach is always a conversation. Ms. Shirley asked Mr. Shimshock to verify if he is talking about car manufacturers. Mr. Stewart interjected and asked if Mr. Shimshock was talking about California waiver. Mr. Shimshock responded that yes, he was talking about car manufacturers, petroleum companies, AARP and others. Ms. Shirley responded that this little bit different because this is Cap and Invest so it is viewed as a little more market based where people still have choices that they can make with their own behavior. Interestingly, DEP met with API last week and they have not taken a position on Cap and Invest. At this point, the conversation is more open with regard to climate change than it ever has in the past.

Joseph Duckett mentioned that Ms. Shirley mentioned modelling several times and asked what DEP is modelling for. Jessica Shirley responded that modelling is about reductions, public health impact, and the cost. Expected outputs are how much the program will generate, how much it will cost consumers, and what reductions could be achieved based on the program design. Mr. Duckett asked if DEP is contemplating climate change, since this is all premised on affecting climate primarily, or the temperature. Jessica Shirley responded that no, she thinks it's probably impossible to do that; we (DEP) had the same conversation with regard to the DEP Climate Action Plan. It's one of those things that we know that transportation provides greenhouse gases, so as much reduction as possible, within the reasonable cost, is ultimately the goal. Ms. Shirley mentioned that she is not sure what Mr. Duckett is implying but if he is looking questions like "would it prevent one-degree rise (in temperature)", that she did not think anyone has ever been able to model that on any type of greenhouse gas reduction policy. Mr. Duckett asked if it was fair to say there is no quantitative objective to this and stated that this sounds like the goal is as much reduction as you can get. Jessica Shirley responded that no it is not as much as you can get but she thinks it is more as much as you can get within a reasonable cost and what would be feasible. Mr. Duckett ask for clarification if that was the goal irrespective of whether it affects temperature or not. Ms. Shirley stated that she didn't know. Mr. Duckett stated that the whole premise of the program is based on that (temperature reduction) and that he does not understand the whole program. Mr. Duckett stated that it (climate change) is a global multiyear phenomena and DEP is focusing on several states as if that's going to somehow effect global climate change. Ms. Shirley responded that DEP's perspective is that we have to do something instead of nothing. The federal government is not doing anything, which is why Pennsylvania joined the US Climate

Alliance, DEP put out a Climate Action Plan, and DEP is pursuing several policies that reduce greenhouse gas emissions from Pennsylvania. Ms. Shirley asserted that, while Pennsylvania may only be one part of it, it doesn't mean we should do nothing. Mr. Duckett asked if it was possible for DEP to accomplish everything in the TCI plan and it still won't have an impact on temperature. Mr. Duckett mentioned the Paris agreement and how even that plan states that accomplishing all the goals will not keep temperatures from warming beyond the ultimate temperature goal. Mr. Duckett asked if there is a similar temperature cap goal in the plan that is similar to the Paris plan. Ms. Shirley responded she does not believe there is a similar goal. Ms. Shirley stated that there might be once we decide on what the cap would be, but right now we have not even decided what the cap is. DEP is only doing modelling right now; including a high green gas emissions and low greenhouse gas emission scenario.

Gary Merritt asked how DEP is looking at controlling the cap, whether it would be an emission caps from the vehicles or is it by rationing the amount of fuel sold in the state. Jessica Shirley responded that she does not think it is rationing of fuel and that is a good question. Mr. Merritt asked further how it (fuel rationing) would affect the highway program or everybody else. Ms. Shirley responded that the PennDOT and other transportation agencies will look into it, but the goal is to use other mode of transportation with lower GHG emissions. The transportation agencies have been very vocal about that issue since 2010, because when you reduce gasoline, you are reducing those taxes that are received for infrastructure and other things.

Robert Altenburg stated that Ms. Shirley had said Pennsylvania is at the table for the design process but hasn't committed to a position. Mr. Altenburg asked if Ms. Shirley had a sense of how many of the other 12 states involved have committed to a position. Jessica Shirley responded that she doesn't believe anyone has committed at this time and that everyone is at the stage of figuring out what it will look like and if it will be beneficial.

Patrick O'Neill asked if there are any further questions or comments.

Gary Merritt commented on the sectors that are GHG sources. Patrick O'Neill added that, relating to the gasoline issue, the recent refinery fire in Philadelphia has brought up questions about whether that refinery is necessary because we are using less and less gasoline due to fuel efficiency. Mr. Merritt stated that everyone talks about the gasoline and asked what about the diesel and the trucking industry. Mr. O'Neill responded that we are seeing hybrid-diesel buses and that he thinks the majority of SEPTA buses are hybrid and are now starting to switch over to electric. Mr. O'Neill stated that he believes we will see diesel use going down as well, which has different consequences.

John Shimshock presented the inventory data on the greenhouse gases and the different sectors between 2016 and 2017 impacting the greenhouse gases and discussed some of the data. Jessica Shirley stated that one of the criticisms on this from the EJ community is that jet fuel is not included but just the gasoline and the diesel.

Kevin Stewart commented, based on the inventory information shared by Mr. Shimshock, that the CO<sub>2</sub> numbers from medium and heavy-duty trucks from 1990 vs. 2017 almost doubled. Mr. Stewart asked how much really DEP is looking at that sector in this program. Mr. Stewart stated that if DEP is really focused on the greenhouse gases emissions from the transportation sector that

this is the sector where the main problem was for the CO<sub>2</sub> emissions. Jessica Shirley responded that that issue will probably come when we talk about the investment strategies. Ms. Shirley reiterated that the cap side of the program is for gasoline and diesel; the investment side is where you want to see the change. Ms. Shirley further stated that if Pennsylvania or other states were to use that money to invest somehow to reduce the emissions from medium and heavy-duty trucks, we could do that. PennDOT has a statistic that one out of every eight vehicles on the road is on the road in Pennsylvania; we are a big shipping corridor coming out of the New York port to Pennsylvania. Pennsylvania has pretty big share of medium and heavy-duty truck greenhouse gas emissions.

Jayme Graham stated that reading the first page and in one of the paragraphs lists pollution from all kind of sources for greenhouse gases and not only from the transportation. Jessica Shirley responded that she is not sure why they included all of those sources, but the focus is only on the transportation. PA is looking on how it will potentially link with RGGI, but it will be couple of years away.

Patrick O'Neill asked if there are any further questions or comments and there were none.

*Status of the Environmental Quality Board Petition on Program to Limit Greenhouse Gas Emissions*

Jessica Shirley provided the status of the Environmental Quality Board Petition on a Program to Limit Greenhouse Gas Emissions.

Joseph Duckett asked for clarification that this is a potential cap and invest program across all the industries and across everybody. Jessica Shirley responded that yes, that is what the petition is for. Mr. Duckett asked if this is in addition to the regulatory actions and if that would require a law change. Jessica Shirley responded that this is what the petition is about and clarified further that petition is to have DEP to make the regulation, and for EQB to adopt the regulation, which will create the cap and invest program. Mr. Duckett clarified that he is asking if DEP has the authority under existing law. Ms. Shirley responded that this is what DEP is analyzing at the present time. The petition indicates that DEP does have the authority and DEP is analyzing it to verify it.

Patrick O'Neill suggested having the people who submitted the petition come in and do a short presentation to the committee at the next AQTAC meeting. Mr. O'Neill then explained the EQB process of petition.

Josie Gaskey asked who is paying for the economic analysis and whether it is the petitioner. Jessica Shirley responded no, and due to that reason DEP is trying to get as much as possible out of this. Mr. O'Neill requested to add this to the what to-do list.

Joseph Duckett stated that we have cap and trade for NO<sub>x</sub> already, which is based on the Ambient Air Quality Standards. Mr. Duckett asked if that same concept would be extended to CO<sub>2</sub> for which there is no ambient standard. Mr. Duckett asked if the analysis included with the petition is something DEP has adopted. Patrick O'Neill clarified that DEP will be asked to adopt it. Mr.

Duckett verified that DEP has not made the decision on adopting the analysis. Jessica Shirley responded no and stated that DEP is in the evaluation process right now.

Gary Merritt asked, once the EQB agreed to move forward, how long the DEP has to respond and asked whether the DEP can ask for an extension. Jessica Shirley responded that EQB accepted it for the further study and the petition policy indicates that DEP has 60 days to evaluate it but there is an option to extend it past 60 days. Because the petition was so large, DEP committed to coming back in 60 days to tell the EQB what the Department's plan was to evaluate it. EQB will be updated at their meeting next week. The committee asked for a copy of the proposal. Ms. Shirley agreed to provide it.

#### *Affordable Clean Energy (ACE) Rule*

Krishnan Ramamurthy provided an overview of Affordable Clean Energy (ACE) Rule.

Judy Katz asked if EPA is planning to provide any modelling. Krishnan Ramamurthy responded no and is not sure at this time if EPA is proposing any broad guidelines to assist states or not.

John Shimshock commented that it was mentioned on one of the slides in the presentation that different things can be done; these are not small projects and some of these projects can be multimillion-dollar projects. Krishnan Ramamurthy acknowledged that some companies have already undertaken these projects.

Joseph Duckett asked if those companies get the credit for having done the projects already. Krishnan Ramamurthy responded that yes, and the case-by-case analysis will show that the baseline emissions for that facility are a lot lower because they already incorporated that additional technique, and that additional controls are not cost effective and the potential emission reductions are not going to be significant.

Robert Altenburg asked that how Title V fee for the CO<sub>2</sub> will be collected under current regulation because the current regulations cite pollutants included under one provision of the federal Clean Air Act and CO<sub>2</sub> is regulated under a different provision. Krishnan Ramamurthy responded that it will be addressed during the comment/response process because this was one of the comments received. Mr. Ramamurthy indicated that he can't answer this right now as it needs to be discussed with the executive and the legal staff.

Jayne Graham asked for clarification on slide 7 about the CO<sub>2</sub> emission reduction from the coal units and from the electrical sector. Krishnan Ramamurthy responded that he will make sure the numbers on the slide are correct and stated that EPA did all coal units first and then they also did other units because there will be an impact. Any operational changes in the coal sector will impact the other energy producing unit. IP model forecasted what kind of impact will be on the non-coal units because of the ACE rule; therefore, there is a reduction in the CO<sub>2</sub> emissions.

Joseph Duckett asked for clarification if DEP will require the coal firing power plants to retroactively meet the permitting requirements and to replace their economizers. Krishnan Ramamurthy explained the implementation plan and mentioned that the rule is already



incorporated in reference and DEP does not have to go through the rulemaking as it is an applicable requirement right now. He used the examples of the BACT, RACT, and BART etc. to clarify the process.

Jayne Graham reiterated Mr. Duckett's concern and stated that his question is that the requirements are not applicable to the sources making changes but will apply to the existing sources who will be installing the new control on the existing sources. Krishnan Ramamurthy responded that that is correct and mentioned that the analysis will need to be done on the new sources.

John Shimshock made the presentation using the graphs of "Electric power generation (Billion KWH) and emissions (MMT CO<sub>2</sub> Eq.)". It included the comparison of nuclear generator, renewable generator, petroleum generation, natural gas generation, coal generation and the total emissions from 1990 to 2017.

### *Mechanics of the Regulatory Process*

Robert Reiley provided an overview of the Regulatory Process using a slide show presentation.

Kevin Stewart stated that the presentation was very good but did not include the proposals of reform. Robert Reiley responded that was correct as this presentation was done in the past with his co-presenter who described those proposals, but his co-presenter was not available right now. The general assembly is thinking about some amendments to the Regulatory Review Act and believes that they have three or four proposals for consideration.

Judith Katz stated that Pennsylvania has the longest process of adopting a regulation than any other state in the country and asked is there any consideration of improving this process by eliminating some of the steps. Robert Reiley responded that he agrees, especially if DEP knows that there are sanctionable items, but, in general, it will be difficult and need to be done by the statutory changes, including amending the Air Pollution Control Act, Regulatory Review Act etc.

Joseph Duckett asked if Mr. Reiley flow charted the presentation. Robert Reiley responded that yes there is a flow chart which can be accessed through the DEP website.

Joseph Duckett asked if there is any prospect to streamline the process of eighteen months' time it takes for any regulation. Robert Reiley responded that yes and used the mercury regulation as an example of a regulation which was done sooner than eighteen months, but also stated that regulation needed to be pushed to get the regulation promulgated by EPA.

Jayne Graham asked what happened to the Sunshine Act. Robert Reiley responded that it is still in place.

Jayne Graham asked who decides that a regulation needs to go back out to public comment (or that it doesn't) after it is changed in response to public comments. Robert Reiley responded that it is agency decision, but the proposed decision needs to go through the proper chain of command before the final decision is made.

*Overview of Draft General Plan Approval and/or General Operating Permit for Combined Heat and Power (CHP) Facilities (GP-20)*

**Disclaimer:** Due to technical malfunction with the recorder, this session was not recorded and therefore transcript of Q&A is not available. However, the Department has attempted to provide below the summary of questions that were asked by AQTAC members and responses to these comments by the Department's staff or AQTAC staff members.

Naishadh Bhatt provided an overview of Draft General Plan Approval and/or General Operating Permit for combined heat and power (CHP) facilities (GP-20) using a slide presentation.

John Shimshock asked what efficiency was used in determining CO<sub>2</sub> emission limits. Naishadh Bhatt responded that DEP used 25% efficiency for turbines equal to or less than 12 MW and 28% for turbines greater than 25 MW. These numbers were used in U.S. Department of Energy's Combined Heat and Power FACT Sheet.

Joseph Duckett asked that what the time frame is for the authorization. Naishadh Bhatt responded that it is five years. Mr. Duckett asked for the clarification regarding first bullet on slide 7, the terms and conditions of GP-20 cannot be modified during the authorization. Mr. Bhatt clarified that the DEP cannot change the terms and conditions of GP-20. Mr. Duckett asked for further clarification about what happens if source is modified after getting authorization. Mr. Bhatt responded that the owner or operator must seek the new authorization for modified source to ensure that all conditions and requirements of GP-20 are met.

Josie Gaskey asked what the length of authorization is for GP-20 is. Naishadh Bhatt said it would be same as every other GP, which is five years.

Joseph Duckett commented that the periodic monitoring requirements after every 2,500 hours of operation seems burdensome because these facilities generally operate throughout the year. Naishadh Bhatt clarified that the 2,500 hours of operation is not for the demonstration purpose and it is different than the periodic monitoring. The periodic monitoring can use the portable gas monitors.

Joseph Duckett asked about the use of parametric monitoring in place of periodic emissions monitoring. Naishadh Bhatt responded that the use of parametric monitoring in place of emissions monitoring has been investigated previously by DEP, and there are currently no credible operating parameters that can be identified and monitored that accurately predict exhaust emissions to the degree needed to verify emission limit compliance.

John Shimshock advised DEP to verify through manufacturers/vendors appropriate turbine efficiencies to validate CO<sub>2</sub> emission limits. Naishadh Bhatt assured Mr. Shimshock that DEP will contact turbine vendors and check with them.

Joseph Guzek mentioned that the compliance testing is required once/year. Mr. Guzek explained that the periodic monitoring requirements are also established in current GP-5 for engines and

turbines and that industry has been successfully complying with this requirement. Use of portable gas analyzers are cost-effective way to monitor the operation and NO<sub>x</sub> and CO emissions from engines and turbines.

Joseph Guzek asked how GP-20 emission limits compare to GP-5. Naishadh Bhatt responded that DEP used power to heat ratio of 1 for CHP facilities and, therefore, in g/bhp-hr units, it will be half of the GP-5 emissions limits.

John Tissue asked about the fees associated with GP-20. Joseph Guzek clarified that the fee will be roughly around \$2,000, with \$1,700 for Plan Approval Application fees and \$375 for Operating Permit Application.

#### **OTHER AQTAC BUSINESS / OPEN DISCUSSION**

The committee discussed and voted on the recognition of the AQTAC members for their services to the committee. Committee was informed that the thank you letters were sent to Nancy Parks and James Seward for their service. The committee discussed whether to send a plaque to the members who retired from the committee. The committee decided that committee members will either get the plaque for Nancy Park or DEP will get the plaque and AQTAC members will take the financial burden.

Patrick O' Neill summarized the to-do list which included the following: providing copy of the petition submitted to EQB; ITQ report which will be e-mailed to AQTAC members; data from Department of Health on natural gas impacts; and the copy of regulatory flow chart etc.

Kirit Dalal informed AQTAC members that DEP will be going for the testimony on August 16, 2019 for the 184c petition filed by Maryland.

Next Meeting: The next AQTAC meeting is scheduled for 9:15 a.m. on Thursday, October 17, 2019, in Room 105 of the Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA.

Adjournment: Josie Gaskey made a motion to adjourn, and it was seconded by Kevin Stewart. With no further business before AQTAC, Patrick O'Neill adjourned the meeting at 12:30 PM.

Minutes prepared by Hitesh Suri, Air Quality Program Specialist. For additional information, please contact Kirit Dalal at [kdalal@pa.gov](mailto:kdalal@pa.gov) or 717-772-3436, or visit the AQTAC Web page at: <http://www.dep.pa.gov/Business/Air/BAQ/AdvisoryGroups/Air-Quality-Technical-Advisory-Committee/Pages/default.aspx>