

Pennsylvania Department of Environmental Protection
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING
Minutes
December 12, 2019

Air Quality Technical Advisory Committee (AQTAC) Members Present

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

Department Staff Present:

| | |
|-----------------|------------------|
| Kirit Dalal | Allen Landis |
| John Krueger | David Althoff |
| Hitesh Suri | Nancy Herb |
| Lucas Hershey | Susan Foster |
| Randy Bordner | Viren Trivedi |
| Kristen Furlan | Bob Bonner |
| Kurt Klapkowski | Susan Hoyle |
| Valerie Shaffer | Sean Wenrich |
| Bo Reiley | Jennie Demjanick |

Others Present:

| | |
|--|--|
| Vince Brisini – Olympus Power | Dayna Pelc – All4 LLC |
| Kyle Rosato – University of Pennsylvania | Mike Sherman – range Resources |
| Kevin Sunday – PA Chamber | John Schmelzle- Power Engineering Inc. |
| Terry Black – ERM | Tom Weissinger - Talen |
| Tom Duncan – Manko Gold | Bill Kesack - CMI |
| Teresa Irvin McCurdy – TD Connections | Chuck Haney - EMAP |
| Varun Shekhar – Babst Calland | Julian Boggs – Keystone Energy |
| Mandy Warner – EDF | Robert Ruth – Clean Air Council |
| Tom Schuster – Sierra Club | |

CALL TO ORDER

Patrick O'Neill, AQTAC Chair, called the December 12, 2019 meeting to order at 9:25 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.

Approval of Minutes

The minutes of the October 17, 2019 meeting were discussed by the AQTAC members. There was a typographical error of Patrick O'Neill's name which was corrected in the final minutes. The minutes were approved by a vote of 12-0-1 (yes/no/abstain).

ACTION ITEM

Draft Final Form Rulemaking Annex A to Amend Air Quality Fees.

John Krueger provided a PowerPoint presentation on the Draft Final Form Rulemaking Annex A to Amend Air Quality Fees.

John Shimshock presented a concern of the declining Title V fee balance as per presentation and mentioned that within a short period of time the fund requires additional revenue. Mr. Shimshock asked if DEP has considered a long-term remedy rather than waiting in the future. John Krueger responded that the Department strives to have a sustainable source of funding for the program and has included fee schedules out to 2031.

Mr. Shimshock followed up with another question about the time frame for revisiting the issue of collecting the fee for the CO₂ emissions. Mr. Krueger responded that DEP is not collecting a fee for CO₂ in this rulemaking package. However, the Department is exploring alternate ways to address CO₂ emissions including participating in the Regional Greenhouse gas Initiatives (RGGI).

Joseph Guzek asked for the clarification regarding change to the annual operating permit maintenance fee and asked what the numbers were prior to the change. John Krueger responded that the original proposal was \$2,500 for Synthetic Minor and \$10,000 for Title V. Mr. Krueger clarified that based on the previous comments about the fee structure, DEP did not increase or decrease the fee proportionally, but rather used the ratio of Synthetic Minor and the Title V facilities. Mr. Guzek confirmed that this is the annual maintenance fee for Title V and indicated the present fee charged from both synthetic minor and Title V facilities. Mr. Krueger responded that the application fee has not changed and remains the same, but the only significant monetary change is the decrease of Title V and increase of Synthetic Minor fees resulting in the collection of the same amount of money for the program.

Gary Merritt stated that there are NSPS CO₂ standards for gas and coal; therefore, CO₂ is considered a regulated pollutant and the fee structure should be consistent to include the fee from CO₂ emissions. Mr. Merritt further indicated that the Department's 2016 PA Bulletin Notice stated that the CO₂ fee would be addressed as part of this rulemaking. John Krueger responded that the DEP understands the concern. Mr. Krueger further clarified that during the evaluation of the fee structure, DEP considered and factored into the calculation of facilities which are already

closed or have announced closing in the future. Viren Trivedi indicated that DEP looked into the entire proposal, and a fee on CO₂ was taken into consideration, but the Department decided not to assess the annual emission fee for CO₂.

John Tissue asked when DEP evaluated the cost, if consideration was taken that some of the facilities may switch to Title V from Synthetic Minor. Mr. Krueger responded that DEP did not take into consideration the switch from the Synthetic Minor to Title V facilities. Mr. Tissue added that the new proposed maintenance fees may decrease shifting. Mr. Krueger reiterated Mr. Tissue's point that there may probably be less of an incentive for facilities to switch at this point because of the increase in Synthetic Minors and the decrease in Title V's. Viren Trivedi mentioned that there may be some facilities shifting, but he does not expect many facilities to shift. Currently, there are now 500 Title V facilities and 735 Synthetic Minor facilities. Mr. Trivedi added that there are several regulations implemented and if anyone needed to shift, they may have already done so. There may be some facilities who want to shift due to financial reason. Mr. Trivedi added that DEP does not anticipate any large shift.

John Shimshock supported Mr. Tissue's concerns and commented that the presentation showed the frequency of losses as more of a financial stress at this time, and DEP should conduct a comprehensive review to address Title V in terms of stability.

Jayne Graham disagreed with Mr. Shimshock and stated that the Department and Allegheny County need revenue for their funds right now, even if the Department does have to revisit this issue later. Ms. Graham did not think there is a need to address this issue now. Ms. Graham clarified Mr. Guzek's concern that the application fee has not changed from the original fee in the 2018 proposal, but they are increasing it from what it is now. Mr. Krueger confirmed. Ms. Graham inquired when DEP will expect to start charging the maintenance fee, assuming everything goes as per schedule. Mr. Krueger responded that the fee will be assessed in the end of 2020 for the year 2021.

Judy Katz commented that she understood the Department's position of need for the fee in the near future. Ms. Katz also mentioned that even though CO₂ is a regulated pollutant, adding it to the proposal would be a significant change, therefore requiring another proposed rulemaking and delay in collection of the necessary funds.

Robert Altenburg stated that he agrees with many comments made on CO₂. Mr. Altenburg indicated that by exploring the Air Pollution Control Act, the collection of pollution created by a regulated pollutant is not optional on the part of the Department. The EPA has finalized that CO₂ is a regulated pollutant under section 111; therefore, it qualifies as a regulated pollutant. Mr. Altenburg added that the rulemaking discussion led by Mr. Merritt, the existing regulation states the emission fee for regulated pollutants is an additional fee and a pollutant regulated under sections 111 and 112. Mr. Altenburg further indicated that CO₂ falls under that section and he thinks it's reasonable to address a different fee than \$85/ton for CO₂. Mr. Altenburg stated that he does not see any changes to the regulatory language that will trigger a collection of fees.

Viren Trivedi thanked him for the comment and stated that DEP will not be charging the fee at this time and is working on another rule addressing CO₂.

Patrick O'Neill asked about the opinion of the other committee members. He agreed with Ms. Graham's comments on the need to proceed further with the rule. Mr. O'Neill added that he agrees with Mr. Altenburg and Mr. Merritt on charging a fee for CO₂ but is also in favor of moving with the rule as it stands and addresses CO₂ as soon as possible.

Kevin Stewart inquired about the language regarding recognition of a regulated pollutant and verified if CO₂ is listed as such. Mr. Stewart asked if a legal understanding/clarification of CO₂ is to be included or not. Jennie Demjanick responded that DEP is currently developing a proposed rulemaking that would allow PA to participate in the Regional Greenhouse Gas Initiative (RGGI), which includes a fee per ton of CO₂ emitted from a fossil fuel fired electric generating unit. Mr. Stewart asked about the legality on CO₂. Ms. Demjanick responded that yes, CO₂ is a regulated pollutant, but DEP is not collecting the Title V annual air emission fee for CO₂ at this time. Mr. Krueger added that due to the time constraint, DEP is trying to proceed with the rule without any further delays.

Mr. Stewart suggested to make a motion to include the CO₂ fee at a later time.

Patrick O'Neill asked if there were any questions or comments from the committee members and opened the forum for questions from the audience.

Vince Brisini from the audience made a comment that according to his research on other states not charging the CO₂ fee, he found that they have laws which allow them not to charge. The Air Pollution Control Act derives the language directly from the Clean Air Act which identifies the regulated pollutants in Sections 111 and 112. Mr. Brisini added that CO₂ is a regulated pollutant and charging the emission fee by emissions was not a viable path forward into the future due to dramatic changes. In his opinion, the CO₂ emission fee should not be charged as part of Title V fee package. By using an example of Bruce Mansfield, Mr. Brisini advised that fees be charged differently by not charging for the emissions. As the sources are eliminated, facilities do not replace them with the sources that were paying for the program. He commented that as a facility transitions to natural gas, charging for the emissions will not provide enough revenue to the Department in order to sustain the funds for the future. Mr. Brisini commented that Department work load will be increased as facilities switch to natural gas; therefore, the Department needs to address these emission fees. Mr. Brisini did not think this rule is sustainable and thus, the standing rule may be challenged.

The committee voted on the recommendation for DEP to move forward with presenting the Air Quality Fees final-form rulemaking amendments to the Environmental Quality Board (EQB). The committee approved the recommendation by a vote of 10-3-0 (yes/no/abstain).

It was moved that the Committee recommend that the Department begin, at the earliest legal opportunity, a rulemaking process so that the air quality fees explicitly address emissions of CO₂

and air quality program sustainability. The Committee approved this motion by on a 11-0-2 (yes/no/abstain) vote.

INFORMATIONAL ITEMS

Concept of CO₂ budget Trading Program

David Althoff provided an overview of the CO₂ Budget Trading Program.

Kevin Stewart asked what fraction of methane (CH₄) contributes to the PA current greenhouse gas (GHG) inventory. David Althoff responded that the GHG inventory presents emissions in CO₂ equivalent. Mr. Stewart stated that assuming it's significant and asked if RGGI does anything to address CH₄. Mr. Althoff responded not directly; RGGI is strictly a CO₂ program. Mr. Stewart clarified that it is not about the CO₂ equivalent, but it is strictly a CO₂ program. Mr. Althoff responded affirmatively and mentioned that it is illustrated in the presentation that RGGI is about CO₂. Mr. Althoff added that the program is particularly about the electricity sector. Mr. Stewart further discussed the transfer from coal to natural gas, including increasing CH₄ emissions and natural gas power generation and asked if it is addressed in RGGI program at all. Jennie Demjanick responded that the other emission reduction component of RGGI is on the investment side and the proceeds are used to reduce air pollution which generally may include the reduction of CH₄ emissions.

Mr. Stewart further inquired about the basis of the trading. Is it based on life cycle emissions or just what is emitted by a power plant? Dave Althoff responded that it is based on emission data. Mr. Stewart asked if RGGI can be reengineered to properly address the issues of GHG emissions broadly and suggested to keep this in mind as it is excused from the trading market place. David Althoff acknowledged Mr. Stewart's concern and indicated that RGGI is one tool going forward and DEP needs to determine how best to use and apply this tool to address all of the issues possible. Mr. Althoff briefly explained the cap and invest program.

John Shimshock indicated that the presentation shows emissions at the state level from various sectors and asked about the source of data gathered for transportation, agriculture, residential sectors, etc. Mr. Shimshock indicated that he requested this data from the EPA and was told that the data will be publicly available in the near future. David Althoff responded that DEP's Energy Office uses the State Inventory Tool (SIT) and conducts a greenhouse gas (GHG) inventory each year. Mr. Althoff further stated that this data is available on DEP's website.

John Tissue mentioned that he had seen a study at a previous utility job indicating that in order for CO₂ incentive programs to change behavior, the price had to be in the vicinity of \$20 per ton. He stated since this program is only at \$5 per ton, it's clearly not designed to change behavior and is simply a funding program, not an environmental program. Therefore, it should be called a funding program. Mr. Tissue claimed that based on the data pulled from EIA, the

non-RGGI states had faster emission reductions than the RGGI states. Mr. Tissue also expressed concerns about the maintenance and management of funds associated with the RGGI programs.

Robert Altenburg commented on earlier mention of past performance guaranteeing future results. Mr. Altenburg mentioned that PA has lower emissions due to natural gas replacing coal. Mr. Altenburg mentioned that only five coal plants with 11 units are left in PA and the most recently built unit is 46 years old. Mr. Altenburg further clarified that for these plants there is no plan for coal generation to switch to gas and there will be more gas coming into the market. Mr. Altenburg indicated that emissions of CO₂ from gas plants in total in 2015 will be more than the carbon pollution from the coal plants. This needs to be addressed and DEP needs to determine if the RGGI program can address that. Mr. Altenburg disagreed with the mention that there is no cap present due to cash and payment reserve. He believes there is a cap in RGGI program for other states with an allocation for cash and payment reserve. More credits can be issued when market price is too high.

John Walliser encouraged the Energy Office to circulate the report cited in the presentation on the comparison of RGGI states with non-RGGI states.

Kevin Stewart asked about the Department's plan for use of program proceeds. Dave Althoff responded that DEP needs to determine the use of funding based upon several factors including the clarification of the cap, expected credits, etc. As of right now it is within the scope of the Air Pollution Control Act. The funding could go towards benefiting air quality, clean energy, electrification, transportation sector, plugging wells with CH₄ release, etc. Mr. Althoff further clarified that he is hoping that there may be a multiyear plan similar to the Volkswagen settlement beneficiary mitigation plan.

Legacy Wells

Kurt Klapkowski provided the information on Legacy Oil and Gas Wells using a power point presentation.

Jayne Graham inquired if the wells found are from the old registration records and from the individuals who call in and let the Department know if something is amiss. Kurt Klapkowski responded in the affirmative. Mr. Klapkowski also gave an example of discrepancies between the DEP's records and older maps from the DEP's web page. Based on current DEP records and a historical map for Allegheny County, it is displayed like a slider on which one side is google earth with no overlay and other side is farmland map from 1930's which shows the old wells on this map. Mr. Klapkowski indicated that there are several ways to find these wells which include research in coordination with the National Engineering and Technology Lab set up, using magnetometers, residents, coal operators, etc.

Ms. Graham further asked if the leaking is just gas or can it also be oil. Mr. Klapkowski responded that yes, the Department does find leaking abandoned oil wells from time to time. The

federal Oil Pollution Act of 1990 does provide funding to clean up these leaking oil wells, but they must be releasing oil that pollutes or endangers navigable waters of the United States. Mr. Klapkowski mentioned that EPA plugged in a neighborhood of about a thousand oil-leaking wells since 1990 in western PA.

John Walliser mentioned that the GHG emission factor estimated in a study conducted in conjunction with the Bureau of Air Quality and asked if it is same as the leaking plugged wells study. Kurt Klapkowski responded that it is one of the aspects, usually, we observe for the different segments of the wells universe as we have active oil and gas wells operating today, plugged wells, abandoned wells, etc. DEP is trying to figure out what each segment of the universe is contributing to this issue. Mr. Walliser asked further if by mid-2020 the analysis will be completed. Mr. Klapkowski responded that is the goal, but it also depends on the staff availability and the workload.

Kevin Stewart asked about the scientific basis of the numbers on the prioritization sheet. He also questioned, if these numbers were developed by considering the environmental health, safety hazard, economically normalized risk analysis, etc. This would provide a more rational acquisition than just plugging in the numbers at random. Mr. Klapkowski responded that historically the system at DEP considered these factors, but the system was recently updated to ensure that critically important issues get the most weight as it is described on the logarithmic scale.

Kevin Stewart suggested the DEP prepare some kind of analysis that would show how the economic model, such as Texas model, is funded and how it works to resolve the funding problem. In addition, possible options to be considered for PA should be provided, which can possibly establish a program to do what is necessary. Mr. Stewart asked if Department has any document of this kind. Mr. Klapkowski responded that DEP is looking into some of these possibilities. Mr. Klapkowski mentioned that one of the solutions which is being considered is based on the program underground storage tanks is using. In this program, they have an indemnification fund which provides the funding to clean up petroleum releases from underground storage tanks. The money in the fund comes primarily from a \$0.01 per gallon tax on gasoline sales in Pennsylvania. Mr. Klapkowski added that this fund was created because EPA has financial assurance responsibility regulations for underground storage tanks, and this is how the state has chosen to deal with those requirements. A parallel program for oil and gas wells is an option to address the outstanding liability for plugging wells. This process can be handled by a third party.

Josie Gaskey expressed thanks for the presentation and commented that the DEP needs to look into the Texas program including the tax situation in Texas. She mentioned that the DEP should examine how their Railroad Commission operates. Mr. Klapkowski responded that every state operates differently, and Texas was mentioned due the fact that Texas plugged as many wells over the past two years as Pennsylvania has since 1989.

PUBLIC COMMENT

Robert Routh, Clean Air Council, thanked Governor Wolf for his commitment on RGGI and DEP staff efforts in drafting rules to setup a Pennsylvania program to control carbon pollution from power plants. Mr. Routh indicated that PA still has the fifth dirtiest power sector in the country and power plants emissions currently exceed those in all nine RGGI states combined. The electric power sector roughly contributes one-third of overall GHG emissions. Mr. Routh indicated the benefits linking PA with RGGI include allowing for emissions trading, which would be an even more cost-effective abatement across the region, stronger economy with stronger program to unexpected climate change, etc. Mr. Routh mentioned the study conducted by Acadia center which illustrated 47% emission reduction in RGGI states with lower electricity prices and higher GPD. On behalf of the Clean Air Council, Mr. Routh urged DEP to move forward with the new rule making and open a public comment period as soon as possible.

Vince Brisini, Olympus Power, LLC provided a written presentation, including a detailed overview of the RGGI impact by identifying the price which would be added to MWhr by electric generation once Pennsylvania joins RGGI. Mr. Brisini clarified that the price would decrease going from coal fired units to the newest pipeline natural gas fired units by about \$4.00/MWh. He illustrated that without RGGI, PA EGUs (Electric Generation Units) reduced CO₂ mass emissions in 2018 by 33.2% from 2005 emissions, which are beyond Governor Wolf's and Paris agreement about the CO₂ reduction goal with PA being 10.5% lower for the Obama Clean Power Plan target. The EGU CO₂ emissions reduction occurred by coal and coal refuse-fired plants retiring and being replaced by natural gas-fired electric generation. Mr. Brisini discussed the RGGI history by comparing 2008 and 2018 total electric sales (MWh) and net total electric generation (MWh) including net total electric generation vs. total import/export % of electric sales for both years. Mr. Brisini stated that there is no assurance of CO₂ emissions reduction as a result of PA joining RGGI, but as an RGGI state, there will be more power generated than in the past and can be imported. Mr. Brisini mentioned that RGGI is not an environmental program until it is understood completely.

Josie Gaskey suggested to have the literature or the testimony of the commenters in advance which would make it easier for the committee members to comment or ask any questions they may have during the testimonies.

Patrick O'Neill mentioned adding to the bottom of the agenda that it is recommended to provide the written testimony from the commenter in advance so that the committee has an opportunity to review it prior to the meeting.

Mandy Warner, Environmental Defense Fund (EDF), expressed gratitude for the opportunity to provide the comments on behalf of over 75,000 members across Pennsylvania. Ms. Warner provided the background of the organization and on behalf of its members, supported Pennsylvania moving forward with developing the rule compatible with RGGI. Ms. Warner mentioned the significant benefits, including a reduction in carbon pollution, public health, the

climate and the economy. Ms. Warner urged DEP to accelerate the timeline and move quickly with the proposed rulemaking. Ms. Warner mentioned about the poll conducted by EDF Action which found that 79% of Pennsylvania voters support for a regulation to reduce the carbon pollution. Ms. Warner indicated that the PA can secure the emission reductions necessary at the lowest cost and continue to meet the energy needs of the state and maintain its role as a net energy exporter.

Julian Boggs, Keystone Energy efficiency alliance representing more than 60 member businesses in energy efficiency. Mr. Boggs indicated the support in Pennsylvania moving forward with developing the rule compatible with RGGI as half of the proceed can be invested in the energy efficient programs. Mr. Boggs noted that PA has already invested in energy efficiency through the Act 129 programs which may have a few gaps which can be filled by joining RGGI including the many customers who are not served by the electric distribution utility facilities which are covered by Act 129 and the technology which is not supported by Act 129 for several reasons. Mr. Boggs urged DEP to move forward with the new rule making as soon as possible.

Tom Schuster, representing the Sierra club, indicated the support of initiative taken by Governor Wolf on the rulemaking process on RGGI. Mr. Schuster reiterated that Sierra club agrees that this rule itself is insufficient to address the totality of climate presence, but it is a critical component. Mr. Schuster shared that there has been an analysis done by researchers for the future. It looked into the impact of Pennsylvania linking with the RGGI program. He mentioned that the Sierra club may have presented to PA that the driver will not be shifting the generation out of state. Instead, it is going to be primarily the preservation and prevention of the replacement of the nuclear power with new gas and also continued switching from high intensity carbon generation to low intensity carbon generation.

Teresa McCurdy, TD Connections encouraged everyone to look into Dr. Scott Tinker's website "switchon.org" in which he has several presentations on the website about carbon reduction, energy, and climate change, etc. Ms. McCurdy provided some basic background information about the website and indicated that the website is very informative regarding energy and climate change.

INFORMATIONAL ITEMS

Air Quality Perspective

Nick Lazor provided a presentation on Air Quality Perspective

Kevin Stewart valued the presentation and lauded the achievement made by Pennsylvania during the decade in air quality. Mr. Stewart discussed the design values in accordance with the standards and mentioned the lung association report in comparison in which every bad air day is counted. Mr. Stewart indicated that having several bad days may seem like a lot for a sensitive population. This population is a major classification which is the basis of the Lung Association report. Mr. Stewart further stated that it is difficult to identify poor air quality regions around

the country, specifically the southeastern region of the United States. Mr. Stewart specified that the rest of the country has even better air quality. The rank reflects our standing with respect to other parts of the country. Nick Lazor responded that going back to the time in 1980s when the temperature was as high as in 90s with humidity in 96 having at-least three solid Ozone days. Now, Department gets very few ozone days sometimes in Philadelphia or Bristol and very few in Western PA. Mr. Lazor mentioned that the dynamics have changed as emissions are reduced so much whereas the metrological emissions transport trend is rather enforced locally than long distance.

Patrick O'Neill mentioned the statement made by Mr. Stewart earlier that southeastern region of United States is doing much better as far as air quality is concerned and asked if there is any particular reason. Kevin Stewart responded that there are several factors including population density, transportation, traffic density, etc. The population is relatively dispersed with lots of vegetation, reducing some air pollution problems.

Josie Gaskey made a comment that she values someone showing Pittsburgh as it is now, but some residents still think that the steel town is covered with black soot. Ms. Gaskey asked about Department's thought on ultrafine with less than 1 microgram which could be leading to asthma cases. Nick Lazor responded by stating that DEP has yet to see equipment which will measure the ultrafine. Mr. Lazor indicated that there is a fair amount of research done on ultrafine and there is more chemistry involved than what is reported.

Patrick O'Neill asked if it is possible for ultrafine particulate to increase while PM2.5 is decreasing. Nick Lazor responded that he is unsure if there is any technology that is ready for field deployment but presently DEP is using the data from PM2.5.

Kevin Stewart stated that the Lung Association has not seen anything in epidemiology or any association between ultrafine particulate, specifically as a component of PM or any risk of asthma onset. There is a history of asthma and the stigma attached to it as people being regarded somehow weaker or unable to view the world. People are very reluctant to conclude asthma as a diagnosis. Mr. Stewart mentioned that early low numbers are due to lack of diagnosis, lack of exercise, lack of doctors' exposure, lack of a strong immune system, issue of obesity, etc. There are many factors associated in the increase of asthma. Mr. Stewart mentioned that asthma is a multi-factorial disease. Lung Association stressed in their report that air pollution is not a significant factor in causing asthma, rather pollution is creating a condition in someone who is more sensitive to asthma exacerbation when they are exposed to the air pollution problem.

John Shimshock indicated that there was mention of various sites including an ALA report and asked if DEP gets any other information other than ALA report. Nick Lazor responded that the Department relied on the ALA report.

Ambient Air Quality update

Sean Nolan provided an overview of the Ambient Air Quality update using a slide show presentation.

John Shimshock indicated that on slide #23 the 3 days with 12 total exceedances does not seem to be correct as there are multiple monitors and multiple days with a huge territorial problem. Sean Nolan responded that the Department had an issue with the Easton monitor in the past. He will investigate it and provide the correct data to Mr. Shimshock. (**Update:** Sean Nolan has reviewed the slide in question. There was an error on the slide. For the 2018 SO₂ data, the slide should read 12 days | 12 exceedances and not 3 days | 12 exceedances.)

Michelle Homan asked about the SO₂ data in the Erie area. Sean Nolan responded that the DEP does not have SO₂ data in the Erie area as there is no testing for SO₂ conducted in that area. Ms. Homan further indicated that SO₂ shows in the network for a while. Mr. Nolan responded that yes, it has shown in the network for some time. However, it is outlined in the network plan when to propose the addition or deletion of a monitor from a different site. It may have been eliminated in 2015. (**Update:** Sean Nolan has reviewed the history of SO₂ monitoring at the Erie site. The discontinuation of SO₂ monitoring at the Erie site was discussed in PA's 2016 Annual Monitoring Network Plan. The Erie SO₂ monitor was subsequently shutdown in October 2016.)

Kevin Stewart requested to follow up with Ms. Homan's inquiry and asked to verify the justification of removal at that time. Nick Lazor responded that anyone can see each of the sites, including the monitors at that site online. Mr. Lazor mentioned that DEP has an SO₂ network, PM_{2.5} network, ozone network and at many occasions these networks overlap at the same location. Mr. Lazor indicated that DEP has the monitors where needed and SO₂ monitoring is not required in the Erie area. Mr. Lazor further mentioned that DEP is always evaluating the locations where monitoring is desired.

Michelle Homan mentioned that her question is unrelated to the presentation, but inquired that in the past, the EPA talked about distributed sensors network. She asked if this has been increased in the compliance at all. Ms. Homan mentioned that she realizes the limitation with sensors and the trade-off and the accuracy but is curious to find out a little more about it. Nick Lazor responded that the EPA has required to set monitors using method 325 at specific intervals near the refineries. EPA is also looking into how to take that data and normalize it with the standards for PM_{2.5} that handles humidity. There are lots of sensors in the market, but the reliability is questionable for some of them such as for Ozone, NO_x, and VOC, etc.

Patrick O'Neill interjected and made a comment that Clean Air Council co-located one of their Purple Air monitors with one of Air Management Services advanced PM_{2.5} monitors but that the Purple Air monitor did not perform very well. It had issues not only correlating data but also with the accuracy of the data.

Nick Lazor commented that EPA is looking into the ways to develop the algorithms to deal with the inefficiencies, etc. Mr. Lazor provided some details and issues with the existing monitors in the market today.

Kevin Stewart mentioned the air quality in the eastern PA compared to the rest of the United States and asked why northeastern United States air quality has worse air quality compared to rest of the southeastern United States. Sean Nolan responded that there is no simple answer and it depends on how close the number of cities are from the coast and the meteorological data in the northeastern United States. Mr. Nolan indicated that the Atlantic Ocean and other bodies of water, such as the Chesapeake Bay and Long Island Sound, also have an impact due to land/bay/sound breezes which may influence the ozone concentration. Right now, most of the coastal monitors along Long Island Sound in Connecticut and the Chesapeake Bay in Maryland have a much higher concentration of ozone because of their proximity with respect to water which exists in the northeast but is not as prominent in the southeastern United States.

Report on Rulemakings/State Implementation Plan Revisions

Kirit Dalal provided report on Rulemakings/State Implementation Plan Revisions

John Shimshock mentioned that he noticed in the Federal Register, the EPA recently identified seven states, including PA for failure to submit 2015 Ozone Infrastructure SIP. He asked about the status of Pennsylvania. Kirit Dalal responded that DEP is in the process of completing the infrastructure part of the SIP and working with the EPA on the transportation portion of SIP due to pending litigation.

Mr. Shimshock further asked about the status of Affordable Clean Energy (ACE) Rule. Viren Trivedi responded that DEP is in the process to send the letters to all the EGUs about a method they want to implement. Based on their responses, DEP will incorporate it in the Title V permits and send a SIP revision to the EPA. Mr. Shimshock further inquired about the time frame of these letters. Mr. Trivedi responded that the letters were circulated to the regional offices for review. He expects to send them in January or February.

Kevin Stewart asked about the status of the Erie Coke situation. John Krueger responded that DEP is conducting the enhanced monitoring around the facility and there is still pending litigation.

OTHER AQTAC BUSINESS / OPEN DISCUSSION

The following discussion took place for the other AQTAC business:

- Josie Gaskey recommended to have the commenter provide the literature or the handouts in advance. Patrick O'Neill suggested to mention at the bottom of the agenda that the written version of the anticipated comments is preferred in advance.

- Jayme Graham suggested to have the commenters bring a copy of the written version with them instead of having the copies upfront, which will create additional work and would be difficult to track if anyone revised it prior to presenting the testimony.
- Kristen Furlan interjected that DEP may need to review the practice of other advisory committees and discuss with the policy office before implementing what is being recommended here.
- Patrick O’Neill mentioned that it is more convenient for the committee to review the comments beforehand.
- Judy Katz recommended any procedure changes to be discussed with the policy office.
- Patrick O’Neill agreed to draft something and circulate to the committee before implementation as it is not mandatory, but it is important to see the commenter’s testimony beforehand.

Next Meeting: The next AQTAC meeting is scheduled for 9:15 a.m. on Thursday, February 13, 2020, in Room 105 of the Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA.

Adjournment: Kevin Stewart made a motion to adjourn, seconded by Judy Katz. With no further business before AQTAC, Patrick O’Neill adjourned the meeting at 2:30 PM.

Minutes prepared by Hitesh Suri, Air Quality Program Specialist (AQPS). For additional information about AQTAC, please contact Kirit Dalal at kdalal@pa.gov or (717) 772-3436. For any minutes related questions contact Hitesh Suri at hsuri@pa.gov or (717) 772-3963 or by visiting the AQTAC Web page at:

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