CALL TO ORDER AND APPROVAL OF MINUTES

The meeting was called to order at 9:00 a.m. in Room 105, Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA. The Environmental Quality Board (EQB or Board) considered its first item of business – the approval of the November 19, 2019, EQB meeting minutes.

Andrew Place made a motion to adopt the November 19, 2019, EQB meeting minutes. James Schmid seconded the motion, which was approved by a majority of the Board members. Senator Santarsiero abstained from the vote. (16-1)

(Denise Brinley and Michael Hanna were not present for voting on the approval of minutes.)
CONSIDERATION OF PROPOSED RULEMAKING: WATER QUALITY STANDARDS FOR MANGANESE AND IMPLEMENTATION (25 Pa. Code Chapters 93 and 96)

This rulemaking proposes to amend 25 Pa. Code Chapter 93 (relating to water quality standards) and 25 Pa. Code Chapter 96 (relating to water quality standards implementation). The amendments propose to delete manganese from Table 3 at § 93.7 (relating to specific water quality criteria) and add manganese to Table 5 at § 93.8c (relating to human health and aquatic life criteria for toxic substances). Additionally, the amendments propose two alternatives for a point of compliance with the manganese water quality standard: the point of all existing or planned surface potable water supply withdrawals; or all surface waters (i.e., near the point of discharge). The proposed regulations support both alternatives.

Aneca Atkinson (Deputy Secretary for Office of Water Programs) provided an overview of the proposed rulemaking. Josh Lookenbill (Bureau of Clean Water), Kristen Schlauderaff (Bureau of Clean Water), Alex Chiaruttini (Chief Counsel), and Michelle Moses (Assistant Counsel for Bureau of Regulatory Counsel) assisted with the presentation.

Following the Department’s presentation, Mr. Schmid inquired regarding the alternatives for applying the proposed standard of 0.3 mg per liter (mg/l). He noted that one of the alternatives is to change the standard currently of 1.0 mg/l down to 0.3 mg/l at the point of discharge. The other is to move the point of compliance, applying the standard of 0.3 mg/l, downstream to the first public water intake. He inquired, in the event the application of second alternative, the 0.3 mg/l standard moved downstream, if there would be any limitation on the manganese that would be in between the point of discharge and the point of intake. He further asked if the 1.0 mg/l is going to stay in place for the point of discharge or if it would be completely removed. Ms. Schlauderaff responded that the rulemaking proposes a new criterion of 0.3 mg/l for the protection of human health and a deletion of the current 1.0 mg /l potable water supply criterion. The 0.3 would replace the 1.0.

Mr. Schmid requested further clarification asking if there will be no limit on the concentration of manganese that can be discharged until the location of the first public water supply at which point the dilution is supposed to have brought whatever was discharged down to 0.3 mg/l. Ms. Schlauderaff explained that the Department recognizes that certain industries, like mining, have other limitations that apply to discharges of manganese. Federal effluent limitation guidelines (ELGs) apply that restrict the discharge of manganese. However, the Department’s analysis of all industrial categories of dischargers revealed that none of the other industrial categories found in Pennsylvania have Federal ELGs for manganese. Mining does, but other industries that were identified do not. The proposed standard would apply statewide to all industries that discharge. Mining ELGs are 2 mg/l as a 30-day daily average, 4 mg/l as a daily average and 5 mg /l as an instantaneous maximum. This will continue to be applicable at the point of discharge. Ms. Schlauderaff further indicated that the Department will continue to closely evaluate impacts of discharges on potable water supplies.

Mr. St. Clair asked what the Department’s primary rationale is for dividing the 1 mg/l criterion by a safety factor of three, resulting in an artificially low standard. He noted that the inhalation hazards and resulting toxic effects of airborne manganese are well-documented, but the toxic effects of ingested manganese is limited. Epidemiological studies were inconclusive. Further, he stated that manganese is an essential nutrient. He questioned listing manganese alongside other toxic metals such as arsenic and mercury. He further questioned calling manganese a neurotoxin at a low level when data suggests that 1 mg/l is an adequate standard. Ms. Schlauderaff responded that, the IRIS database distinguishes between inhalation exposures and oral exposures. There are reference doses for both. In preparing this proposal, the
Department evaluated the oral dose only, as the inhalation data was not relevant for the purposes of this rule. The referenced published dose is 0.14 mg per day and is based solely on adult dietary studies, which recognizes variability in dietary exposure to manganese that can range anywhere from 2-10 milligrams. The recommendation for the modifying factor comes from human exposures, primarily the effects on infants, which is significantly different to that of adults.

Ms. Schlauderaff continued that the Department recognizes manganese is an essential dietary nutrient. However, the adult diet also limits absorption of manganese. Other nutrients, minerals, and substances are consumed thereby limiting absorption and exposure. With infants, that would not be the case. Their diets, especially up until six months, is strictly breast milk and/or infant formula. They can potentially have much higher exposures to manganese as they are absorbing much more. There are also other differences in that life stage that lead to increased absorption. How infant bodies handle and process manganese is different. EPA recognized these factors at the time they published the IRIS reference dose and recommended that for exposures associated with other pathways like soil or water, that a modifying (safety) factor of 3 is applied to the published reference dose. The Department followed this recommendation and applied the modifying factor to that reference dose to get a reference dose of 0.05, which was used in the equation to calculate the manganese criterion.

Mr. St. Clair inquired if the Department is aware of the 2019 study that indicated no difference between infants and adults in exposure to manganese. Ms. Schlauderaff encouraged the submittal of any additional data. The Department reviewed numerous studies and those studies support the proposal currently under consideration.

Mr. St. Clair questioned the veracity of the studies reviewed by the Department, noting that some came from India and other countries. He questioned whether it is acceptable to compare the dietary intake and needs of people in India versus those of the residents of Pennsylvania. Ms. Schlauderaff responded that, the dietary intake of adults does likely vary in other countries, but the population of concern here is infants not adults. Their diets are restricted to breast milk and/or formula and would not vary considerably on a global scale. Therefore, studies conducted in other countries are relevant.

Mr. St. Clair noted that the total maximum daily load (TMDLs) limits was discussed as one of the primary reasons for having a lower standard for manganese. TMDLs can be exceeded by drainage from abandoned mines that have no responsible party accountable for cleanup. Therefore, placing a 0.3 mg/l standard on an NPDES discharge will not impact abandoned mines, the main source of manganese as the actual discharge. He questioned the reasoning for applying the 0.3 standard on TMDLs. Ms. Schlauderaff explained that the Department’s discussion of TMDLs was to show the overlap in the Department’s review and to show where permits are, where intakes are, and where the Department is aware of elevated levels of manganese.

Mr. Schmid inquired, in the event that the 0.3 mg/l standard is applied downstream at the point of the first public water intake, where the concentration would be monitored. Further, if the alternative standard was adopted, would there be a monitoring location no longer at the point of discharge but instead at a point downstream that permittees would be responsible for monitoring. He additionally asked if the standard would be applicable at high flow storm events or at average flow conditions, as this would directly affect the dilution provided by the receiving stream. Ms. Schlauderaff responded that when permits are issued, the Department uses modeling to the downstream public water system and then the permit writer would back calculate an effluent limit for the discharge, which is monitored by the permittee at the facility. As
far as the downstream responsibility, downstream public water suppliers would likely need to increase their monitoring of source water to ensure they can treat and meet their permit requirements.

Mr. Schmid further inquired if the downstream water user, the public water supplier, noted a spike in manganese, how they would then attribute that to a specific discharger upstream if there are multiple dischargers. Ms. Moses responded that the Department would need to evaluate all upstream dischargers to determine the source and evaluate the discharge monitoring data, taking note of which discharger has the higher amounts of manganese in their discharge that may be responsible for the spike. In the intervening time, the public water supplier will still need to provide finished water that is appropriately treated, and meet specific safety standards to protect their customers. Source water monitoring will therefore be of critical importance.

Mr. Schmid asked, during the period of a given NPDES permit, if a new public water source comes online downstream, would that permit need to be recalculated or would the existing permit criteria remain through the life of the permit until reissuance. Ms. Schlauderaff confirmed that the permit would need to be recalculated.

Senator Yaw introduced a motion to amend the proposed rulemaking. He noted that he does not object to the two alternatives currently included in the proposed rulemaking but wished to add a third alternative to the proposal for public comment.

**Senator Yaw made a motion to amend the proposed rulemaking by adding language to the Annex A. Representative Metcalfe seconded the motion.**

Senator Yaw explained his proposed amendment to the rule noting that it is designed to alleviate the concerns the Department discussed concerning industries other than coal mining. He further explained that his amendment was intended to address remining, referring to mining in areas where previous mines were once abandoned. Remining has been an effective tool for reclaiming abandoned mine land and addressing acid mine drainage discharges. This amendment would allow mine operators to operate under a revised set of water quality limits. Senator Yaw commented that his amendment is meant to address activity already being implemented through Chapters 87, 88, and 90. The amendment adds consideration with respect to manganese.

Chairperson McDonnell noted that, in developing this proposed rulemaking, a number of statutes were reviewed, including the Regulatory Review Act, in order for the rulemaking to be compliant with all relevant applicable laws. For every rulemaking proposed, an analysis must be conducted, and that information is recorded on the regulatory analysis form. He inquired if that analysis had been conducted for this proposed amendment. Ms. Shirley responded that this amendment would add a new section to the wastewater treatment requirements in 25 Pa. Code Chapter 95. Incorporating this amendment into the proposed rulemaking would require the Department to revise all analysis and to conduct additional analysis. Ms. Moses added that introducing regulatory changes to Chapter 95, that is not part of the current proposal which amends Chapters 93 and 96, is outside the scope of the rulemaking package that is before the Board and would require the Department to bring this proposed rule back to the Board once the revised and added analyses are complete.

Ms. Shirley inquired of Mr. Lookenbill as to the type of additional analysis that would be required. Mr. Lookenbill responded that evaluating a new chapter and conducting the necessary analysis would be a
lengthy and involved process. Ms. Chiaruttini noted that the necessary additional review and analysis would need to cover legal, economic, and technical issues.

Chairperson McDonnell affirmed that the Department, under the Regulatory Review Act, must provide data and technical analysis for all rulemakings. The Department would thus need to provide that data and analysis for this new section, which has not been done at this time.

Mr. St. Clair suggested that the amendment is relevant to the point of compliance for dischargers and would establish technology-based limits for all manganese discharges. Ms. Moses responded that there would still be the potential for elevated concentrations of manganese from the point of discharge to the point of withdrawal. Furthermore, pursuant to the Federal Clean Water Act, the Commonwealth is obligated to choose between the more stringent of technology-based limits and water-quality based limits. Chapter 95 limits are technology-based limits. If the water quality-based limits included in Chapter 93 are more stringent than the technology-based limits included in Chapter 95, the Commonwealth must, through the NPDES program, implement the water-quality based limits.

Mr. St. Clair reaffirmed his disagreement with the 0.3 mg/l as the human health criterion, citing a recent study that showed no difference in impact to infants and other vulnerable populations when ingesting manganese. He further noted that the entire stream section would not need to be protected using a human health criterion as the public will primarily be ingesting finished water, adequately treated by public water suppliers.

Senator Yaw explained that his primary impetus for providing this amendment was to ensure the consideration of remining and to ensure that remining is not disincentivized through this rulemaking process. He discussed considering changing his motion from amending the rule at this time to considering his proposed amendment as the rule progresses or to conduct further evaluation on the impacts of the amendment. He reaffirmed that he wanted to ensure that remining is strongly considered as this rule moves through the regulatory review process.

Chairperson McDonnell stated his agreement with Senator Yaw’s assessment of the impact of remining on Pennsylvania’s streams. Remining has served as an important tool for improving water quality.

Senator Yaw restated his position that remining be considered as the rule moves forward, and he noted that this can happen by formal direction or recommendation. Chairperson McDonnell stated that the Department will evaluate this issue as the proposed rulemaking moves through the remainder of the formal regulatory review process.

Mr. Welty referred to the motion still under discussion, asking if the motion had been amended or withdrawn. He stated concern that the Board would not truly have the opportunity to amend proposed rulemakings if the Department must, upon suggested amendment, always revise the regulatory analysis form. Chairperson McDonnell responded that the Board has made amendments to rulemakings at Board meetings in the past. However, these amendments were intended to be clarification for existing language included in the regulations. In these cases, the analysis is already complete. Adding a new chapter requires that we conduct corresponding analysis and address it in the rulemaking package. Without doing so, the rulemaking may be prohibited from being promulgated. Ms. Shirley added that amendments of any kind can certainly be accepted at a meeting, but as Chairperson McDonnell explained, some amendments will require the Department to bring the rulemaking back at a later time once the rulemaking is in compliance with all parameters of the Regulatory Review Act.
Mr. Place asked if, procedurally, the rulemaking should be tabled for consideration today and reintroduced at a future meeting once the rule has been modified per the recommended amendment. He stated sensitivity to Senator Yaw’s concern that this language be incorporated in this rulemaking in order for public comment to be accepted on this proposed additional provision.

Ms. Moses reminded the Board that both the Department and the Board are before the Pennsylvania Supreme Court on a matter that involves how quickly this rulemaking is promulgated. Tabling the proposed rule today to allow for further analysis to address the proposed amendment could have implications for this matter.

Representative Metcalfe offered criticism at the length of time already passed to bring this rule to the Board. He further asserted that the Department must comply with Act 40 of 2017 and stated perceived concern that the proposed rulemaking, as presented, attempts to sidestep compliance with the provision of the statute as written, and suggested that Department staff should go back and redraft the proposed rulemaking to comply with Act 40. He noted that residents of Pennsylvania may also be dismayed at this delay of complying with the law. He affirmed his position that Senator Yaw’s amendment should be incorporated into this rule and the Board should be provided with a rule that complies with Act 40. He stated that this amendment should be incorporated at this meeting.

Senator Santarsiero commented that Board members should not criticize the Department for taking time to propose a regulation to comply with a State law that he noted may be unconstitutional. He further noted that the case was made concisely that Federal law prohibits what Act 40 of 2017 attempted to do, which is to change the point of compliance from the discharge (whether it’s a mine or other discharge) to the point of intake, degrading the receiving stream or water body. He indicated that Act 40 runs contrary to the Pennsylvania Clean Streams Law and also the Pennsylvania Constitution. Senator Santarsiero further commented that residents of the Commonwealth may be interested in how and why this provision was added to Act 40. The provision in Act 40 essentially shifts the burden for complying with the law from the discharger ultimately to the ratepayer. The cost will be thus transferred to any Pennsylvania resident whose drinking water is provided by a public water supplier.

Representative Metcalfe stated concern that a proper economic analysis was not conducted for this rulemaking, as he perceived to be true for other water quality standard rulemakings considered by the Board recently. He stated concern that the Department was not meeting statutory requirements under the Regulatory Review Act to assess the impact of water quality rulemakings on small business and others. He stated that while Senator Santarsiero disagrees with Act 40, the Department is still beholden to comply with the law. He stated concern moving forward that all laws were not complied with for preparation of this rulemaking.

Chairperson McDonnell stated that the Department is working to comply with all statutes. Act 40 did not abrogate requirements included in any other statute including requirements that must be met to comply with the Regulatory Review Act, the Clean Streams Law, and the Federal Clean Water Act.

Chairperson McDonnell moved forward to conclude discussion on the motion to amend the proposed rulemaking. He noted that the motion, as currently stated, would add Chapter 95 amendments to the proposed rulemaking. If this motion is accepted as currently stated, the Department will need to conduct additional analysis, as discussed. He offered Senator Yaw the opportunity to amend his motion accordingly.
Senator Yaw revised his motion to table the proposed rulemaking. Representative Metcalfe seconded the motion.

Mr. Place asked for clarification if the motion is for the Department to consider the additional language, or not to incorporate the language. Chairperson McDonnell responded that the motion is to table the regulation for the purpose of adding this language in and presentation of the amended rule to the Board at a later time. Ms. Moses added that this would also include conducting the additional analysis and revising existing rulemaking documents as appropriate.

The motion to table the proposed rulemaking failed by a vote of 8-11.
Michael DiMatteo, Andrea Lowery, Representative Metcalfe, Duane Mowery, Andrew Place, John St. Clair, Jim Welty and Senator Yaw voted in support of the motion.

Chairperson McDonnell asked if there are further comments or questions on the proposed regulation.

Mr. Mowery commented that the manganese limit has not been changed since 1967. He asked if the Department is aware of any adverse health impacts as it currently exists. Mr. Mowery commented that it seems as though there have been no health impacts. Ms. Schlauderaff responded that there is no science that supports 1 mg/l as a number that is protective of human health.

Mr. St. Clair commented that West Virginia imposed a 1.0 mg/l public water supply standard with a point of compliance within five miles of the public water supply. Several other states have taken similar action including Ohio, Indiana, and Kentucky. He inquired if the Department is aware of any studies available that list detrimental health impacts to the health of infants or adults. He further inquired if there is data available that shows an increase in public utility rates after imposing this number in other states. Ms. Moses responded that comparison to other states is extremely difficult, in that each state has very different regulations in place. No two states implement water quality standards in the same way. The Department is not aware if other states conducted scientific assessments of the impact this change would have on its residents.

Senator Santarsiero stated his intent to vote in favor of moving this rulemaking forward. He did, however, state concern with the option of moving the point of compliance. He commended the Department for providing two options in the proposed rulemaking for public comment. He stated he believes this rulemaking to be consistent with state law.

Representative Vitali made a motion to adopt the proposed rulemaking.
Andrew Place seconded the motion, which was approved by a majority of the Board members. Representative Metcalfe, Duane Mowery, John St. Clair, Jim Welty and Senator Yaw voted in opposition of the motion. Motion passed. (14-5)

Chairperson McDonnell thanked Board members for their participation in this discussion. He noted that participation and engagement is appreciated, and the Department will carefully consider everything discussed today as the rulemaking moves through the public comment process and final rulemaking stages.
CONSIDERATION OF PROPOSED RULEMAKING: CONTROL OF VOC EMISSIONS FROM OIL AND NATURAL GAS SOURCES (25 Pa. Code Chapters 121 and 129)

This proposed rulemaking would add §§ 129.121—129.130 to adopt reasonably available control technology (RACT) requirements and RACT emission limitations for oil and natural gas sources of volatile organic compound (VOC) emissions. This proposed rulemaking would apply statewide to owners and operators of one or more of the following oil and natural gas sources of VOC emissions which were in existence on or before the effective date of this rulemaking: storage vessels in all segments except natural gas distribution, natural gas-driven pneumatic controllers, natural gas-driven diaphragm pumps, centrifugal compressors and reciprocating compressors, and fugitive emission components.

Viren Trivedi (Acting Director for Bureau of Air Quality) provided an overview of the proposed rulemaking. Charles Boritz (Bureau of Air Quality) and Jennie Demjanick (Assistant Counsel for Bureau of Regulatory Counsel) assisted with the presentation.

Following the Department’s presentation, Senator Santarsiero inquired if the proposed rule covers pigging operations. Mr. Trivedi responded that the rule covers the same sources as the U.S. Environmental Protection Agency’s 2016 control technique guidelines (CTG) which does not cover pigging operations.

Mr. Place noted that the Department lists only 21 storage tanks impacted by the proposed rule and that seems like too small a number. Mr. Boritz responded that the Department has indicated that there are approximately 21 storage tanks that do not already have a control device in place and that are above the threshold included in the proposed rulemaking.

Mr. Place further inquired regarding net cost given the loss of product. Mr. Boritz responded that, in the analysis, the Department estimated a total cost of $35 million with a $10 million cost savings for a net cost of $25 million to the industry. Breaking the costs down further, the gross per operator cost is approximately $7,000 and with savings factored in, the net per operator cost is $5,000.

Mr. Place asked if the Department considered an instrument air for pneumatics. Mr. Boritz responded that the EPA considered that in its analysis. The Department’s current analysis is based, without variation, on the EPA’s analysis for pneumatic controllers.

Mr. Place further commented on the noted 75,000 tons of captured methane. Mr. Boritz explained that most of the methane emissions from the sources are captured, but some of the emissions are instead controlled through a control device. Further, a small portion of the emissions will be flared. Mr. Boritz additionally explained that based on the Department’s inventory analysis, the total methane reduction will likely fall between 21% and 50%. The Department does not have an exact number for percentage of emissions reduced as the inventory analysis only includes emissions reported by the unconventional industry and by transmission and processing plants. The highest reduction appears to come from the conventional industry due to previous requirements under Exemption 38 and the Department’s General Plan Approval and/or General Operating Permit for Natural Gas Compression Stations, Processing Plants, and Transmission Stations (GP-5).

Mr. Welty reaffirmed that the proposed regulation is based on the EPA’s CTG that was proposed in October 2016. He further noted the EPA has proposed to withdraw the guidelines. He inquired if the Department has considered how a withdrawal by the EPA would impact this proposed State regulation. Mr. Boritz responded that a withdrawal by the EPA would relieve the Commonwealth of the legal obligation to comply.
with the requirements of the CTG within a specified timeframe, meaning there would be no sanctions imposed for failing to implement the requirements. However, the Commonwealth would still be required to address existing sources to attain and maintain the ozone national ambient air quality standards. Thus, the Department recommends that this proposed rulemaking move forward. Further, under Governor Wolf’s methane reduction strategy, the Department was directed to develop this proposed rulemaking. Ms. Demjanick further noted that the EPA proposed to withdraw the CTG on October 27, 2016. According to the EPA’s spring regulatory agenda for 2019, the agency was planning to release a supplemental notice of a potential withdrawal of the CTG in Fall 2019 in response to comments received on the proposal. That supplemental proposal has not been announced or published as of today.

Mr. Welty stated his support of moving this proposed rulemaking forward for public comment. However, he noted that this proposed rulemaking appears to move from reasonably available control technologies to best available control technologies, which is cause for concern for the industry.

Mr. Schmid asked about the applicability of the standards included in the proposed rulemaking. Specifically, he inquired about the thresholds as they relate to production. If production declines, he asked if the well will still be regulated or held to these standards. Mr. Boritz responded that once an entity is regulated, it is always regulated, even if production declines. The low production threshold only applies for the requirements for leak detection and repair (LDAR) at the sites. Every other standard applies whether or not production declines. Further, it is unlikely that the LDAR standard would cease to apply if production declined.

Senator Santarsiero made a motion to adopt the proposed rulemaking. Representative Vitali seconded the motion, which was approved by a majority of the Board members. Representative Metcalfe voted in opposition. Motion passed. (18-1)

OTHER BUSINESS:

Laura Edinger provided a regulatory update on the following:

- The Water Supply Replacement for Surface Coal Mining proposed rulemaking was published in the Pennsylvania Bulletin on November 2, 2019, opening a 30-day comment period. The comment period closed December 2, 2019. One comment was received. IRRC’s comments are due January 2, 2020.

- The Independent Regulatory Review Commission approved the Additional Requirements for Control of Fine Particulate Matter in the Nonattainment New Source Review Program final rulemaking on October 16, 2019. This rulemaking is scheduled to be published as final in the Pennsylvania Bulletin, making it effective, on December 21, 2019.

Next Meeting:
The next meeting of the EQB is tentatively scheduled for Tuesday, January 21, 2020.

Mr. Welty requested an update on the cap and trade petition. Ms. Shirley explained that the Department has not yet received the modeling results. The Department is working with the selected contractor, ICF, to prepare the model; developing assumptions, etc. Work is in progress.

Mr. Welty inquired if the Regional Greenhouse Gas Initiative (RGGI) analysis that the Department is working on will be a component of the petition analysis. Ms. Shirley confirmed that it would.
Chairperson McDonnell commended Board members for their engagement and participation in discussion and thoughtful consideration of rulemakings brought before them. He stated his appreciation of these ongoing efforts and of all the work the Board has done this past year.

Mr. Place commended the Department for the impressive work completed by staff this year in preparation of the rulemakings brought before the Board for consideration.

**ADJOURN:**

With no further business before the Board, Senator Santarsiero moved to adjourn the meeting. Representative Vitali seconded the motion, which was unanimously approved by the Board. The December 17, 2019, meeting of the Board was adjourned at 10:30 a.m.