

MEETING MINUTES

Oil and Gas Technical Advisory Board

March 13, 2023

[The Oil and Gas Technical Advisory Board (TAB) meeting was held as a hybrid meeting in Room 105, Rachel Carson State Office Building, Harrisburg and via WebEx. This meeting was open to the public.]

TAB MEMBERS PRESENT

Voting Members: David Yoxtheimer, Ph.D., PG (Chair), Fred Baldassare, PG, Kimberly Kaal CPG, PG, Casey Saunders, PE, Jeffrey Walentosky, PG

Non-voting Advisors: Susan Brantley, Ph.D., John Walliser, Esq.

DEP STAFF (Meeting Participants)

Kurt Klapkowski, Joe Kelly, Kathleen Ryan, Esq., Todd Wallace, Ann Mathew, PE, Shahed Noyon, PE, Sean Furjanic, PE (guest speaker), Kristin Carter, PG, CPG (Guest Speaker)

CALL TO ORDER

Klapkowski opened the meeting at approximately 10:00 am with welcoming remarks and introductions.

APPROVAL OF MEETING MINUTES

Chairperson Yoxtheimer asked the board members if there were any general comments or suggested edits to the December 1, 2022 draft TAB meeting minutes. Hearing none, Yoxtheimer asked for a motion to accept the draft meeting minutes as presented. Walentosky made a motion to accept the meeting minutes as presented. Kaal seconded the motion and the motion passed unanimously.

PUBLIC COMMENT

Yoxtheimer asked if any individuals registered to provide public comment. Wallace responded that no individuals registered to provide comment and nobody signed the sheet that is posted in Room 105, therefore, there is no public comment to receive.

DRAFT POST-CONSTRUCTION STORMWATER MANAGEMENT MANUAL

Furjanic provided an overview of the development and status of the Post-Construction Stormwater Management Manual. The manual has been under development for about

five years and replaces the 2006 Best Management Practices (BMP) Manual. The manual was published in the Pennsylvania Bulletin as a draft document on January 28, 2023 with a 30-day comment period. The manual includes an introductory chapter, a Policy Chapter, the Technical Guidance and Appendices. The Department plans to offer about 25 hours of training via the DEP Clean Water Academy training tool. Furjanic expects the manual to be published as final in late 2024 or early 2025 after the Department has reviewed and considered all comments.

Walentosky asked if the Department will consider offering training to external stakeholders and Furjanic explained that the 25-hour training documents is intended for the public. The Department will provide separate training to DEP staff.

CARBON CAPTURE AND STORAGE/HYDROGEN DEVELOPMENT IN PENNSYLVANIA

Carter delivered a detailed PowerPoint presentation titled “Pennsylvania Perspectives on Carbon Capture and Underground Storage (CCUS), Hydrogen and the Energy Transition.” The presentation covered the following four issues:

What is CCUS and why is it necessary?

What is Pennsylvania’s experience with CCUS and why is Pennsylvania important to the current energy transition?

What does hydrogen have to do with CCUS?

Summary of current activities

Baldassare ask if “permanent disposal” and “beneficial use” of carbon dioxide are both considered subsurface activities. Carter stated that both are subsurface activities, but beneficial use can also be an above-ground activity. One such example is making carbon black products that can take carbon dioxide (CO₂) out of the atmosphere. Carter stated that carbon dioxide can be used as a hydraulic fracturing agent and can be used to enhance the recovery of hydrocarbons since it has fluid like properties under high subsurface pressures at about 2,500 feet and deeper below the ground surface.

Yoxtheimer asked if any studies have been conducted to compare the amount of CO₂ that is generated in Pennsylvania versus the potential storage capacity of CO₂ in Pennsylvania. Carter cited a 2009 “Siesta project” that estimates there are hundreds of years of storage capacity in Pennsylvania. Billions of tons of CO₂ could be stored, but the resources will need to be tested in order to make a more accurate determination.

Walentosky asked Carter what her opinion is about the future of CCUS over the next three to five years. Carter referenced the section of her presentation that highlighted two CCUS projects that are currently in development and that, in her opinion, will come full circle in the next several years. The first project that is expected to emerge is the Key States project and this should be followed by the 21st Century Power Plant project. Carter stated that the actual location of the later project has not yet been determined, but it will

likely be somewhere along the Ohio River valley. It is unclear at this time whether the project will be launched in Pennsylvania or another state such as northern West Virginia.

Carter further explained that there will need to be a coordination of available resources when it comes to the extraction of resources and the injection of carbon dioxide. Currently, there is not an exhaustive amount of data regarding deep geology and it would be helpful if a deep test well was constructed to assist in this regard. Carter also pointed out that although Pennsylvania will clearly be involved in CCUS to some degree, there are other regions of the country such as the southeast and the Illinois basin that are expected to be major players in the area of CCUS.

Walentosky asked Carter what she sees as the biggest obstacles to the implementation of CCUS. Carter responded that the obstacles are not necessarily geology, rather it has more to do with the difficulty in understanding the geologic structure that cannot be seen. Also, there is play between the coordination of the extraction industry and storage industry in Pennsylvania and surface infrastructure is also an issue that must be considered.

Walliser asked Carter if she had any further thoughts related to the competing underground uses of coal versus oil and gas resources. Carter commented that there are some legal issues that must be resolved regarding the use of geologic pore space and this issue will somehow need to be tested. Klapkowski interjected that another hurdle that must be worked through is the permitting of underground injection control wells. Currently, Pennsylvania does not have primacy to issue Class VI wells; however, DEP is considering pursuing the primacy of such wells. The Infrastructure Investment and Jobs Act includes \$50 million in funding to the U.S. Environmental Protection Agency for that agency to work with states that want to pursue Class VI primacy.

Brantley stated that there could be public concerns with the storage of hydrogen and asked Carter to clarify the distinction of hydrogen storage versus hydrogen generation. Carter commented that Pennsylvania's geology and storage capacity will be a factor regardless of the energy source including natural gas or hydrogen or any other energy source that has yet to be discovered or developed. Carter explained that she sees hydrogen storage being used in conjunction with the implementation of hydrogen hub projects that will generate hydrogen, store hydrogen and recapture the hydrogen for further use. Carter mentioned that the U.S. Department of Energy is also examining how current methane storage could be repurposed, if necessary, for the storage of hydrogen in the future, if necessary.

STATUS OF NATURAL GAS STORAGE – WHAT TO EXPECT IN 2023

Klapkowski stated that his remarks to this agenda item will be limited. Klapkowski reminded the board that a well control incident occurred in November 2022 at a well operated by Equitrans that resulted in the release of about 1 billion cubic feet of natural gas over a 14-day period. The Orders that the Department issued to Equitrans as a result of the incident are currently under appeal before the Environmental Hearing Board. Since

the litigation associated with this incident has not yet been settled, Klapkowski is not able to discuss the matter further. The Department intends to engage in future technical discussions with TAB regarding the storage of natural gas in Pennsylvania.

UPDATE ON DRAFT TECHNICAL GUIDANCE DOCUMENTS

Trenchless Technology and Alternatives Analysis TGD

Kelly reported that the Bureau of Waterways Engineering and Wetlands is responsible for this TGD and they are currently reviewing comments and drafting the Comment/Response Document and will be making changes to the draft TGD accordingly. The Alternatives Analysis TGD is expected to be completed in October 2023 and the Trenchless Technology TGD is expected to be completed in May 2024.

ESCGP-3 Prioritized Review

The Department incorporated several edits to this document after the comment period closed. This document was delayed due to a number of high priority projects; however, the Department has turned its attention back to this document since this general permit will expire in October 2023. An internal meeting will focus on some draft edits and then the ESCGP-3 Workgroup will be reconvened to review the new draft document.

Integrated Contingency Plan TGD

Kelly reminded TAB that the Department collaborated with the Pennsylvania Emergency Management Agency (PEMA) in the development of this TGD. The intent was to pull together emergency response and pollution prevention concepts from both agencies into a document that operators can use to address multiple requirements. The draft TGD was presented to TAB in late 2022 and is currently undergoing internal Departmental review and will eventually be posted in the *Pennsylvania Bulletin* for comment.

FORM OG-71 (DISCHARGE OF STORMWATER FROM SECONDARY CONTAINMENT)

Kelly explained that the discharge of stormwater from secondary containment must be approved by the Department via the OG-71 process. Specifically, an operator submits an OG-71A to the Department along with a Standard Operating Procedure (SOP) that explains how the operator will ensure the discharge of stormwater will meet the criteria in Chapter 78a.60(b). These criteria include things like ensuring the pH is between 6-9, no oil sheen is observed on stormwater and that certain distances are maintained from water supplied and streams. After the OG-71A is approved by the Department, the operator submits and OG-71B that references the OG-71A and follows the SOP when operating at other well sites.

DEP drafted an FAQ to supplement the one that is currently on the DEP website to address various questions that have recently been raised by industry. The ultimate goal is to update the language in Chapter 78a.60(b) to clarify the proper management of stormwater from secondary containment.

ACID PRODUCING ROCK CONSIDERATIONS

Kelly reported that the Department hosted a meeting with industry representatives on February 23, 2023 to discuss this subject in greater detail. DEP participants included representation from various Program areas that implement these regulatory provisions to ensure the discussion included input from all other affected Programs.

The first discussion point pertained to the Chapter 102 regulations and the requirement that if an activity has the potential to cause pollution such as acid producing rock. If this activity can be avoided and there is a likelihood that there will be a discharge with elevated metals or low pH then the project cannot be covered by a general permit such as an ESCGP since specific permit conditions cannot be added to a general permit. There was no disagreement on this point by industry representatives.

Kelly reported that several additional topics were discussed during the meeting on February 23 including the 0.5% sulfur threshold when acid producing rock is disturbed on a site. This threshold was established by the DEP Mining Program and is consistently followed by other DEP Programs. Another matter raised during the meeting was that the Erosion and Sediment Control permit is not available in the DEP ePermitting system, but it is available on the DEP Bureau of Clean Water website. The Department intends to make this permit available under the ePermitting system, but this will take some additional time to develop.

Finally, Kelly reported that industry inquired during the meeting whether the Department would consider allowing the review of an ESCGP by a licensed professional rather than the current use of an individual permit. DEP staff responded that they are not comfortable with this suggested approach since there would be the need to conduct monitoring at the site to ensure that adequate controls were in place when the permit is issued.

There were no questions raised by TAB on this subject.

UPDATE ON INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA) IMPLEMENTATION

Klapkowski updated the TAB members on the current status and progress that has been made by the Department in the implementation of the IIJA Program. Klapkowski displayed a copy of the IIJA Dashboard for the board members to view. This tool is available to the public on the Oil and Gas web page.

Klapkowski reminded the board that DEP received \$25 million in the Initial Grant of which 90 percent will be used to plug orphan and abandoned wells and 10 percent will be used by the Department to offset administrative costs. There are 13 contracts that have gone through the commonwealth's bidding process and each contract consists of between 10 – 20 wells on average. Although the greatest concentration of orphan and abandoned wells is located in the northwest region of Pennsylvania, the Department chose to offer

contracts in all three oil and gas regions to promote job creation and economic development.

Brantley asked if any wells have been plugged at this point in the process. Klapkowski responded that seven wells have been plugged thus far and one or two more are soon to follow. Brantley asked what can delay the process of plugging wells and Wise responded that the standard contracting process takes about 3 months from the time of bid opening to the point when a formal “Notice to Proceed” document is issued to a vendor.

Saunders asked where the public can access the IJA Dashboard on DEP’s website. Klapkowski explained that this tool is located under the “What’s New” section of the DEP orphan and abandoned wells webpage. Klapkowski agreed to forward a link to the Dashboard to the TAB members following the meeting.

After providing a summary of the progress made to date under the IJA Initial Grant, Klapkowski provided some background and summarized what to expect with the upcoming Formula grant round and Performance grant rounds that will include a matching grant and regulatory improvement grant.

Klapkowski also informed the TAB members of the implication of the passage of Act 96 and Act 136 that requires 20% of IJA Formula Grant monies to be allocated to an Orphan Well Plugging Grant Program. The Department is required to establish this grant program within 60 days of award or appropriation of the IJA monies.

This grant program directs DEP to issue grants to “qualified” well pluggers which are entities that can demonstrate access to services and resources necessary to plug wells. The amount of the grants is up to \$40,000 for wells with a well bore length less than 3,000 feet and up to \$70,000 for wells with a well bore length of more than 3,000 feet. There is a provision in the statutes that allows for the Department to award a higher grant amount when unusual technical difficulties are encountered when plugging a well. The Department interprets the grant thresholds to be up to \$80,000 for wells with a well bore length less than 3,000 feet and up to \$140,000 for wells with a well bore length of more than 3,000 feet.

This grant program applies to the first round of Formula Grant Funding that has not yet been received by the Department from the U.S. Department of Interior.

EROSION AND SEDIMENT CONTROL GENERAL PERMIT-4 (ESCGP-4) FUTURE PLANS

Kelly reported that ESCGP-3 expires on October 23, 2023 and the Office of Oil and Gas Management has been following the Departments Policy on the Development of Technical Guidance in the development of the ESCGP-4. Kelly stated that there are not significant changes from ESCGP-3 to ESCGP-4 and the primary goal is to ensure that the ESCGP-4 is consistent with the ePermit version of ESCGP-3.

The Department has reviewed various documents that comprise the ESCGP-4 including the Notice of Intent, Form, Instructions, Checklist and the Authorization itself with an eye to what needs to be updated. The edits are currently under internal review and after the draft is completed, it will be presented to the “ESCGP Documents Workgroup.” The goal is to bring the final draft versions of the ESCGP-4 documents to TAB in June and then publish the documents in the *Pennsylvania Bulletin* for comment.

Yoxtheimer asked how the development of the Prioritized Review that is under development for the ESCGP-3 relates to the development of the ESCGP-4. Kelly responded that development of the Prioritized Review component of ESCGP-3 was delayed to multiple high-level competing priorities so the goal is to finalize the Prioritized Review process so it can be incorporated into the ESCGP-4 when it is completed. Kelly pointed out that the development of the Prioritized Review process is not driven by regulatory requirements and is not required to be included in the general permit; however, the Department intends to continue proceeding with the development of the Prioritized Review process for inclusion in the ESCGP-4.

UPDATE ON DRAFT PROPOSED CHAPTER 78 RULEMAKINGS (CONVENTIONAL WELLS)

Klapkowski updated TAB members regarding the two draft proposed Chapter 78 rulemakings (Environmental Protection Standards rulemaking and Waste Management rulemaking) that are currently under development.

Klapkowski reminded the board that the Regulatory Committee to the PA Grade Crude Development Advisory Council (CDAC) presented formal comments to the full council in response to the Environmental Protection Standards proposed rulemaking. The council voted in support of accepting the comments prepared by the subcommittee and will submit the comments to the Department to accompany the rulemaking that is submitted to the Environmental Quality Board. Klapkowski reported that the EQB meeting is not yet on the calendar so this date is yet to be determined.

The timeline of the Waste Management proposed rulemaking is following the Environmental Protections Standards proposed rulemaking by about three months and the Regulatory Committee of CDAC is expected to conduct a detailed review of the Waste Rulemaking and take their recommendations to the full CDAC.

Klapkowski took the opportunity to remind TAB about the status of the Bonding Petitions that were presented to the Department.

NEW BUSINESS

Yoxtheimer inquired if any public comment was received during the course of the meeting. Wallace responded that no individuals provided public comment.

Yoxtheimer asked Wallace to provide an update on the status of the terms of the current TAB board members. Wallace stated that the terms of four of the five voting TAB members are due to expire in July 2023. The individuals whose terms are due to expire include: Yoxtheimer, Walentosky, Baldassare and Saunders. Wallace stated that if any of these members are interesting in continuing to serve on this board that they submit a Letter of Interest along with a resume that can be advanced to the Office of the Governor since these seats are appointed by the Governor.

Kaal's term does not expire until 2025 since she was appointed when the former incumbent resigned and vacated that seat.

Wallace stated that the non-voting members are appointed by the DEP Secretary and their terms do not expire so they continue to serve at the pleasure of the Secretary. Currently, there is one non-voting member seat that is vacant due to the resignation of Dr. Griffith.

Yoxtheimer asked if there is a target date to submit a Letter of Intent and resumes. Wallace responded that given the expected time frame for processing the appointments that it would be appreciated if these documents would be submitted in a couple of weeks. Yoxtheimer suggested that any submissions be submitted to the Department by the end of March.

There were not additional items of new business.

ADJOURNMENT

Yoxtheimer requested a motion to adjourn the meeting. Walentosky made a motion and Saunders seconded. The motion passed unanimously, and the meeting was adjourned at about 12:30 pm.