

MEETING MINUTES

Oil and Gas Technical Advisory Board

May 5, 2021

[In accordance with Governor Tom Wolf's emergency disaster declaration and based on advice from the Department of Health regarding the mitigation of the spread of the novel Coronavirus (COVID-19), the Oil and Gas Technical Advisory Board (TAB) meeting was held virtually as a conference call via Skype for Business. This meeting was open to the public and persons with an interest in attending the meeting could do so via registration on the DEP oil and gas website.]

TAB MEMBERS PRESENT

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

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

DEP STAFF (Meeting Participants)

Scott Perry, Kurt Klapkowski, Allen Landis, Joe Kelly, Seth Pelepko, Elizabeth Davis, Kate Cole, Brian Babb, Brian Bailey, Crystal Magon, Todd Wallace

CALL TO ORDER

Yoxtheimer called the meeting to order at 9:01 a.m. and invited Perry to provide welcoming remarks and introductions.

Perry welcomed Kaal as a recently appointed voting-member of the Oil and Gas Technical Advisory Board (TAB) and introduced DEP staff.

APPROVAL OF MEETING MINUTES

Yoxtheimer asked the board members if there were any general comments regarding the December 19, 2020 draft TAB meeting minutes. Saunders made a motion to approve the meeting minutes as presented. Walentosky seconded the motion and the motion passed unanimously.

PUBLIC COMMENT

No members of the public registered in advance with the Department to provide public comment; however, two individuals requested the opportunity to provide comment to TAB at the May 5th meeting. Ms. Nadia Steinzour, Senior Policy Analyst and Research Manager at Earthworks, voiced strong support for DEP's proposed Chapter 78

rulemaking with some suggested amendments. Ms. Lois Bower-Bjornson, Outreach Coordinator at Clean Air Council, urged DEP to consider increasing bonding requirements via the proposed Chapter 78 rulemaking.

REGIONAL GREENHOUSE GAS INITIATIVE (RGGI) UPDATE

Landis of DEP's Energy Programs Office provided an update to TAB members regarding the RGGI. The RGGI is intended to reduce carbon dioxide emissions from the power sector. The Department advanced a draft rulemaking to various advisory committees in spring 2020 and published the draft rulemaking for public comment in November 2020 and conducted 10 public hearings. In January 2021 the comment period closed, and DEP received over 14,000 individual comments. The Department is currently reviewing the comments.

The Department plans to advance a final rulemaking to the DEP Air Quality Technical Advisory Committee and Small Business Advisory Council on May 17, 2021, and will also present the final rulemaking to the Citizens Advisory Council on May 19, 2021. The final rulemaking was posted on May 4, 2021, and updated modeling has been run. The Department is targeting summer 2022 to present the final rulemaking to the Environmental Quality Board and then to IRRC before publishing the final rulemaking in the *Pennsylvania Bulletin* if approved.

Mr. Jim Welty of the Marcellus Shale Commission asked when the modeling will be available. Landis responded that the modeling is currently posted on the DEP website.

DRAFT PROPOSED CHAPTER 78 RULEMAKINGS (CONVENTIONAL WELLS)

Klapkowski summarized the events that led to the development of the draft proposed Chapter 78 rulemakings (draft proposed rulemakings) related to conventional wells. Klapkowski reminded TAB that the first statement made by DEP regarding the need to advance this proposed rulemaking was in January 2010, and a summary of concepts was shared with TAB in February 2012.

Klapkowski reported that DEP met with CDAC on December 3, 2020 to discuss proposed amendments to Chapter 78 relating to conventional wells. At the meeting, DEP requested to meet with CDAC in February 2021 to continue the discussion; however, CDAC declined to meet with DEP as a result of a vote of the council (i.e., 8 members opposed the meeting invitation and 7 members supported the meeting invitation). DEP met with CDAC again on April 22, 2021 to discuss the draft proposed "Environmental Protection Standards" rulemaking.

Klapkowski proceeded to lead a detailed discussion of the draft proposed rulemaking package on a "section-by-section" basis. Klapkowski encouraged TAB members to ask questions and provide comments during the course of the presentation. TAB members

provided the following statements and asked the following questions during this portion of the meeting:

Walentosky stated that he disagrees with the Department's interpretation and application of Section 78.51(d)(2) of the proposed rulemaking.

Brantley requested a clarification of the intent of Section 78.51 as it relates to impacts to water supplies and its relationship to the presumption of liability provision of the Oil and Gas Act that is referenced in the draft proposed regulations. Klapkowski provided additional insight to clarify this section of the draft proposed regulations.

Brantley asked whether a person who collects water supply samples must be certified, and Perry responded that the Pennsylvania Laboratory Accreditation Standards direct this issue and must be followed.

Baldassare asked, in relation to Section 78.51(c), if DEP is obligated to communicate with an operator via a written report. Klapkowski responded that DEP will communicate with both the water supply owner and the oil and gas operator. Klapkowski stated that DEP will consider clarifying this aspect of the proposed rulemaking.

Walliser asked DEP what the expected timing is for making revisions to the proposed rulemaking. Perry responded that the Department intends to make some changes to the proposed rulemaking prior to presenting it to the Environmental Quality Board.

Klapkowski stated that the Department intends to remove the requirements of Section 78.65 that is related to restoring a well site to "approximate original conditions."

Klapkowski noted that the Department does not intend to update the current bonding requirements via this proposed rulemaking; however, it is considering the possibility of advancing a separate proposed rulemaking in the future to address bonding requirements.

Walentosky thanked Klapkowski for presenting the proposed rulemaking to TAB and stated that he shares some of the concerns raised by CDAC relating to Section 78.51. Walentosky asked if DEP would consider offering an additional opportunity for further discussion with CDAC. Perry responded that the Department does not plan to offer an additional round of discussion with CDAC, since the regulatory concepts have been under discussion for many years. Perry reminded TAB that there will be an opportunity for public comment as the proposed rulemaking advances through the rulemaking process.

Walentosky asked what the expected timeline is for advancing the proposed regulations following the CDAC meeting scheduled in August 2021. Perry responded that a specific date for presenting these proposed regulations to the Environmental Quality Board has not yet been determined.

At this point, Chairman Yoxtheimer stated that TAB and the Department representatives will take a short break and resume the meeting at 11:10 a.m.

UPDATE ON TECHNICAL GUIDANCE DEVELOPMENT

Final Chain Pillar Technical Guidance Document (TGD)

Pelepko reported that DEP's Bureau of Regulatory Counsel has reviewed this TGD, and some minor regulatory citations and statutory references have been revised as a result. DEP is targeting the second quarter of 2021 to publish this TGD.

Pressure Barrier Policy

Pelepko shared his screen with meeting participants to display a copy of the technical guidelines, and the recent edits to the plan were reflected in yellow highlights. Pelepko thanked the TAB members for their input on these guidelines which were presented to TAB about one year ago and discussed the key changes that the Department made to the technical guidelines based on comments received. Pelepko stated that the Department developed a "model plan" and discussed the plan with TAB members.

Walentosky stated that the Department made some positive changes based on TAB's input, but he stated that the document seems to still include some regulatory over-reach by way of regulation by policy. Pelepko responded that the model plan is a tool that is intended to assist the regulated community and is not a regulation. Pelepko stated that though all regulatory requirements must be complied with, the regulated community is not required to document how it complies with the regulations in the Pressure Barrier Policy. Walentosky commented that, as an alternative, contingencies could be documented in a Preparedness, Prevention and Contingency (PPC) Plan.

Kaal stated that she was impressed with the Pressure Barrier Policy and said it had a management system feel; especially with the inclusion of the matrix.

Brantley asked if the Department maintains a list of events of significant well pressure releases or blowouts. Pelepko responded that one of the most significant well pressure blowouts was an event that occurred in 2010 in Clearfield County and that event laid the framework for the 2011 rulemaking that was advanced by the Department addressing a number of issues including blowout preventer use and testings. Pelepko stated that the total number of well blowouts are minimal given the number of wells that are operating in Pennsylvania.

Area of Review TGD

Pelepko reported that final publication of this TGD is imminent; however, the Department is awaiting the outcome of the ongoing litigation brought by the Marcellus Shale Coalition that will be discussed later during today's TAB meeting. Pelepko stated that it is anticipated that this TGD will be published sometime during the third quarter of 2021.

Prioritized ESCGP-3 Reviews

Kelly reported that the Department intends to publish the Prioritized Review guidance sometime during the second quarter of 2021 and plans to meet with the Prioritized Review Workgroup after the public comment period closes to receive additional feedback from the workgroup. Walentosky thanked the Department for the opportunity to reconvene the workgroup to discuss the guidance.

ORPHAN AND ABANDONED WELL PLUGGING UPDATE

Alternative Funding Options

Pelepko provided an update on alternative funding options to plug orphan and abandoned wells, including recently proposed federal stimulus funding that would result in a significant infusion of money to pay for well plugging efforts in Pennsylvania. The Department is preparing a list of “shovel-ready” projects and classifying wells for potential action.

Pelepko also reported that the Department has been in conversations with several non-profit entities about how to partner in novel ways that could benefit the overall goal of plugging orphan and abandoned wells in Pennsylvania.

Finally, Pelepko echoed the presentation that was provided to TAB by Landis earlier in the meeting regarding RGGI. As part of this effort, consideration is being given to well plugging opportunities that could be made available via RGGI Investment Plans.

Yoxtheimer reminded TAB members about the upcoming meeting scheduled for May 13 and 14 by the Shale Network. This opportunity is available to the public and there is no cost to register for this event. Yoxtheimer encouraged individuals to visit the ShaleNetwork.org website for more information.

Walentosky asked the Department how it would approach plugging wells in Pennsylvania should it receive federal stimulus funding. Perry explained that the Department has already identified 500 preliminary wells that will serve as the starting point for well plugging efforts. The Department might offer multiple contract bidding opportunities with as many as 10 wells per contract to encourage a range of employment opportunities while also cleaning up Pennsylvania’s environment.

Brantley asked how DEP will ensure contractors that are awarded plugging contracts are responsible contractors. Perry said that the Department will be exercising due diligence as part of the contracting process. Wise explained that the Department’s current contracting procedures includes provisions for checking a contractor’s experience and reviewing the equipment that will be used to plug wells.

Potential Beneficial Reuses (e.g., energy sources)

Pelepko explained that the Department has been examining the possibility of beneficial uses of orphan/abandoned wells such as geothermal energy. Yoxtheimer emphasized the net economic benefit to putting people to work while creating opportunities for future

uses of unproductive oil and gas wells. Using depleted wells to promote energy storage opportunities is one such potential use. Perry explained that government should be nimble and thoughtful about these sorts of opportunities within what the law allows. Although the Department has not currently been presented with any viable proposals, the Department welcomes this conversation.

Cornplanter State Forest Update

Pelepko updated TAB members about the status of the well plugging project at Cornplanter State Forest and reported that four of 12 wells have been plugged and progress continues on the remaining wells. The next contract is scheduled to be bid by the end of the third quarter of 2021.

UNDERGROUND INJECTION CONTROL (UIC) WELL PERMITTING

Babb summarized the current status of UIC disposal wells. Currently, no permit applications have been submitted to DEP; however, there are three proposed locations that the U.S. Environmental Protection Agency (EPA) is in the process of reviewing including: Diversified Oil and Gas (Fayette County), Catalyst (McKean County) and Roulette (Potter County). There are currently 14 active UIC disposal wells, and one regulatory inactive well in Pennsylvania.

A recent study conducted by TetraTech reported that Pennsylvania would need between 17 to 34 additional UIC disposal wells to accommodate the current volume of oil and gas flowback fluids that are produced in Pennsylvania. At this time, most of the waste that is generated in Pennsylvania is transported to Ohio for disposal in UIC disposal wells.

Babb reported that the use of Class VI wells for carbon sequestration is a new concept in Pennsylvania, and DEP is currently considering a process for the review of such permit applications.

Yoxtheimer asked if “commercial” UIC disposal wells are currently running at full capacity, and Babb responded that he is unsure of the current capacity threshold for commercial UIC wells; however, Babb explained that it typically takes time for UIC disposal wells time to get to the point of accepting wastes at maximum permitted levels.

Walentosky asked if the EPA review of UIC disposal permit applications is duplicative of the DEP permit review process. Perry responded that as a result of the litigation that was brought by Grant Township, Indiana County, regarding a UIC disposal permit issued to PGE, it was determined that DEP must conduct an independent technical permit review to satisfy the state legal requirements.

Brantley asked if there are current problems associated with the storage of produced oil and gas fluids given the slow-down in oil and gas drilling practices. Perry stated that this has contributed to the ongoing disposal of produced fluids in Ohio. Brantley asked if Ohio is pushing back on this situation, and Perry responded that the “commerce clause” in the U.S. Constitution prevents Ohio from denying the receipt of produced fluids from

other states. Yoxtheimer stated that it is his understanding a surcharge is imposed by the state of Ohio on produced fluids that are transported within its boundaries for disposal.

FINANCE AND BUDGET UPDATE

Perry provided an update on the current financial status of DEP's oil and gas program. The current permit fee on unconventional well permit applications is \$12,500 and was based on the expectation that the Department would receive at least 2,000 permit applications annually; however, the current permit application submittals are falling far short of this number. The current fund balance should carry the Department for at least 24 months at current operating costs. The Office of Oil and Gas Management is currently preparing a fee report that it must generate every three years per the state oil and gas regulations. Perry explained that an alternative model must be developed to fund Pennsylvania's oil and gas program.

Walliser inquired if any other states have a good model for funding their oil and gas programs. Perry responded that several states, such as Texas and Ohio, use severance taxes to fund their oil and gas programs. Walliser asked if any other states charge an "annual fee" to fund their oil and gas programs. Perry responded that he is not aware of any such examples.

WMGR-123 UPDATE

Klapkowski reported that the Department renewed all WMGR-123 permits in December 2020. These are general permits to allow the beneficial use of oil and gas produced fluids. The Department received some concerns from the public regarding the lack of ability for the public to comment on the WMGR-123 permits that were renewal. In February 2021, DEP entered into a Stipulation of Settlement that provided for a 60-day comment period for renewals that were published in the *Pennsylvania Bulletin* on March 20, 2021. The Department intends to respond to the comments by November 2021. Pursuant to the Stipulation of Settlement, DEP also agreed to conduct complaint investigations of facilities operating under a WMGR-123 permit when such complaints are received by the Department.

Walentosky thanked Klapkowski for the update, but expressed his disappointment that a representative from the Bureau of Waste Management did not participate in today's TAB meeting and inquired who the point contact is for the waste program. Walentosky requested that a representative from the Bureau of Waste Management meet with TAB at its next regular meeting, if possible.

MARCELLUS SHALE COALITION (MSC) LITIGATION UPDATE

Klapkowski reminded TAB members that in October 2016, the MSC challenged the Chapter 78a regulations in Commonwealth Court. A preliminary injunction was issued in November 2016, and the litigation continued over the past five years.

In December 2020, DEP and MSC reached a Settlement Agreement on six of the eight counts raised in the litigation. The two counts that were not part of the Settlement Agreement include the Area of Review (AOR) and Public Resources provisions. Pursuant to the Settlement Agreement, DEP published new compliance dates for centralized impoundments in the *Pennsylvania Bulletin*. The deadline for submittal of the closure plan to the Department for review and approval was moved from April 8, 2017 to June 7, 2021. The deadline to close a centralized impoundment or permit such facilities under the Residual Waste regulations was moved from October 8, 2019 to January 8, 2024.

The Department will also update the Frequently Asked Questions document and update any related forms as a result of this Settlement Agreement.

PENNSYLVANIA STATE UNIVERSITY DEPTH-TO-BRINE STUDY

Yoxtheimer presented to TAB and the Department regarding a magnetotelluric (MT) survey research project that was conducted by the Pennsylvania State University (PSU) Center for Outreach and Research. The pilot study was conducted at a location in Canton (Bradford County) in November 2020 where there was existing data regarding depth-to-fresh-groundwater and brine interface metrics. Yoxtheimer explained that MT may provide a relatively rapid and reliable approach to determining the interface between depth to deepest fresh groundwater and brine. This can assist in designing surface casing depths to isolate deeper groundwater with higher levels of total dissolved solids. Currently, PSU is preparing a two-dimensional model and hydrogeologic conceptual model and is considering the possibility of conducting future MT research if funding allows.

NEW BUSINESS

Yoxtheimer asked the Department if there were any additional questions from the public in the chat box. There were no questions and no additional public comment was requested.

There were no topics of new business suggested by TAB or the Department members.

ADJOURNMENT

Yoxtheimer requested a motion to adjourn the meeting. Walentosky made a motion and Baldassare seconded. Motion passed unanimously, and the meeting was adjourned at 12:10 pm.