MEETING MINUTES

Oil and Gas Technical Advisory Board Meeting March 19, 2024

TAB MEMBERS PRESENT

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

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

DEP STAFF PRESENT

Kurt Klapkowski, Kris Shiffer, Todd Wallace, Joe Kelly, Ann Mathews, Don Hegburg, Myron Suchodolski, Nic Pistory, Maximillian Schultz, Joel Keller, Andrew Foley

CALL TO ORDER

A hybrid meeting of the Oil and Gas Technical Advisory Board (TAB) was held in Room 105 at the Rachel Carson State Office Building, 400 Market Street, Harrisburg and also via Microsoft Teams. This meeting was open to the public. Klapkowski called the meeting to order at about 10:00 a.m. and opened the meeting with introductions of DEP staff and a roll call of the TAB members.

APPROVAL OF MEETING MINUTES

Yoxtheimer asked board members if there were any comments or suggested edits to the meeting minutes and called for a motion to approve the meeting minutes of the December 5, 2023 TAB meeting. Walentosky moved to accept the minutes and Saunders seconded. The meeting minutes were approved unanimously.

PUBLIC COMMENT

Yoxtheimer asked the Department if any members of the public registered to provide comment. Wallace responded that no individuals registered to provide comment at today's meeting. No comments were received.

TRENCHLESS TECHNOLOGY GUIDANCE DOCUMENT

Andrew Foley, Water Program Specialist in the DEP Regional Permit Coordination Office, provided a PowerPoint presentation regarding the Trenchless Technology Guidance Document. Foley reminded the board that the Department provided a presentation to TAB in January 2020 on the draft Trenchless Technology Guidance Document and the Department considered the boards comments in the development of this guidance document. Since the development of the draft guidance document the Department held multiple stakeholder workgroup meetings and eventually published a final guidance document two weeks prior to the TAB meeting.

Following the presentation, Foley responded to a number of questions from the board. Walentosky asked about the Department's plan to roll out this document since it is now final. Foley explained that many applicants are using this document and the Department is developing training and will post it to the Clean Water Academy webpage. The Department is also participating in a meeting with the Marcellus Shale Coalition and industry members in April to discuss this document.

CIVIL PENALTY ASSESSMENT GUIDANCE – UPDATE

Klapkowski reported that the Civil Penalty Assessment Guidance was posted and has been available on the DEP "Non-Regulatory Agenda" for several years and mentioned the Department is conducting a broad assessment of compliance. The Office of Oil and Gas Management intends to advance this guidance document in 2024.

INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA) UPDATE

Klapkowski provided a detailed update of the status of the IIJA Initial Grant, Formula Grant, Regulatory Improvement Grant and Matching Grant.

Klapkowski highlighted that the Department is developing an Orphan Well Plugging Grant Program in accordance with Act 96 and Act 136 and will stand up this grant program within 60 days of receiving the IIJA Phase 1 Formula Grant funds. Shiffer provided an overview of the application process for the OWPG Program.

Brantley commended the Department on the progress the Department has made, to date, on standing up these federal grant programs.

UPDATE ON INFLATION REDUCTION ACT (IRA), METHANE EMISSION REDUCTION PROGRAM (MERP) GRANT

Klapkowski provided a detailed update of the status of the IRA MERP and explained that it is possible that about 1,500 wells could be plugged via this program.

WELL PLUGGING SUBCOMMITTEE REPORT

Walentosky reported that the Well Plugging Subcommittee met on December 7, 2023 and February 22, 2024. The subcommittee consists of about three dozen members and includes about 16 DEP representatives. Walentosky stated that the main issue discussed has pertained to this issue of "attainable bottom." The Subcommittee formed a working group of about seven members to focus exclusively on the issue of attainable bottom.

Another topic of discussion by the subcommittee has pertained to the consistency of the Chapter 78 regulations and Act 214 and the subcommittee is considering possible regulatory changes and will bring any recommendations to the Subcommittee and TAB in the future.

Walentosky stated that a virtual meeting of the Well Plugging Subcommittee is scheduled for March 27, 2024 and the larger committee meets on May 7, 2024.

Saunders stated that he is encouraged with the overall direction of the subcommittee and mentioned that the development of this technical guidance document is a little different than most guidance documents in that decisions must be made while a rig is on the well pad. Saunders said that this technical guidance document is good and can reduce uncertainties, but it is not a "one size fits all" guidance and will not address every potential scenario that could emerge.

EROSION AND SEDIMENT CONTROL GENERAL PERMIT (ESCGP-4)

Kelly explained that the ESCGP-3 was administratively extended to get the ESCGP-4 on track for publication at roughly the same time as the PAG-02 (General Erosion and Sedimentation Permit) that is being advanced by the DEP Bureau of Clean Water. The purpose is to ensure that if comments are received on the PAG-02 that the Department has the opportunity to address the same comments in the ESCGP-3. Kelly reported that ESCGP-3 expires on January 6, 2025. Kelly then explained the process for advancing the draft ESCGP-4 and that it is currently in the process of internal review.

The ESCGP-4 will be published in the Pennsylvania Bulletin for a 30-day comment period. The Department will consider all comments, develop a Comment/Response Document and will incorporate any changes into the final draft document. The Department expects to bring the final draft of the ESCGP-4 to TAB in September 2024. The Department will then publish ESCGP-4 as final and will roll out the permit sometime in August. Training will be offered to the regulated industry and the County Conservation Districts.

ANTICIPATED WELL PLUGGING COSTS AND EXAMINE FINANCIAL ASSURANCE STRATEGIES TO ADDRESS FUTURE WELL ABANDONMENT

Klapkowski reported that as part of the IIJA Formula Grant application process, the Department estimated that the plugging of a typical conventional well costs about \$68,000; however, the average costs have amounted to about \$100,000 per conventional well. Part of the reason for the cost increase probably has to do with the applicability of federal prevailing wage requirements, unknown problems that are encountered and the limited supply of well pluggers.

Klapkowski reminded the board that the Department received a Bonding Petition related to conventional wells from the Sierra Club and other petitioners and it is currently under litigation so cannot be discussed. He mentioned that the Department also received a similar Bonding Petition related to unconventional wells that requests the bonding amounts be changed from the current "laddered" approach with a blanket bond to a flat bond in the amount of \$83,000 per well with no blanket bond. Klapkowski said the Department is working to determine the best path forward regarding financial assurance for wells. The Department hasn't run contracts to plug unconventional wells so there is not good cost data on what these costs might be in the future.

Klapkowski stated that several tools currently exist such as collateral and surety bonds, but the Department wants to explore whether other tools are available. One example is the use of tools modeled after the "life insurance" industry whereby assets are created and generated and then released back to an operator after a plugging certificate is issued by the Department. Klapkowski has been in communication with officials in the Province of Alberta, Canada that has made significant progress in regard to financial assurance models and also officials in New Mexico and Utah. The Department intends to continue discussions with these entities and perhaps also Colorado and California.

Klapkowski stated that he would like to invite TAB to establish a workgroup to assist the Department in evaluating various financial assurance methods. The board agreed to assist and it was suggested that the first workgroup meeting could be held virtually sometime in May. The Department agreed to provide some dates in May to the board to see what date is mutually convenient.

Walentosky asked if DEP has reached out to industry to engage them in discussions. Klapkowski responded that the Department wants to initiate conversations with TAB and go from there.

Yoxtheimer asked about the Underground Storage Tank Indemnification Fund (USTIF) model that is used by the DEP Storage Tank Program to fund the removal and cleanup of underground storage tanks. Specifically, Yoxtheimer asked if the USTIF invests the dollars to grow the fund over time. Klapkowski responded that to develop a similar model for plugging orphan or abandoned wells would require legislation to establish such a fund. Klapkowski provided an overview of the USTIF program to inform the board about how that program works.

CURRENT TRENDS REGARDING DRINKING WATER SUPPLIES IMPACTED BY DRILLING OPERATIONS

Counahan reported that there does not seem to be an upward trend in positive determinations of impacted drinking water supplies, but there does seem to be an increase in the number of stray gas investigations reported to the Department. The Department has also been sending out Notices of Presumption (of impacted water supplies) to potentially responsible operators and according to the Oil and Gas Act, operators are provided an opportunity to rebut the presumption of liability.

Yoxtheimer asked if there are specific areas of the commonwealth where oil and gas activities are positively impacting drinking water supplies and Counahan responded that impacts are not limited to specific site locations. Yoxtheimer asked several other questions such as whether methane is the primary contaminant being found in drinking water supplies, whether conventional versus unconventional wells are responsible for impacts and if the Department still publishes copies of positive determination letters on its public website. Counahan responded that the Department uses isotopic analyses to determine the source of methane contamination. He also responded that the Department observes impacts from both conventional and unconventional wells with perhaps slightly more sources of conventional wells in southwest and northwest Pennsylvania where more conventional wells are located and unconventional wells in the northcentral and northeast areas where unconventional wells are more prevalent. He reported that the Department continues to post positive determination letters to the DEP website for the public to access. Brantley followed up with a number of questions and Counahan responded to each of them.

CERTIFIED INSPECTOR INITIATIVE

Shiffer discussed a number of program improvements and efficiencies that have been implemented by the DEP Office of Oil and Gas Management including: ePermitting, eInspections, and telework assignments over the past several years. The overall workload has increased with the implementation of the federal grant programs including the Infrastructure Investment and Jobs Act Initial Grant, Formula Grant, Performance Grants and the Methane Emissions Reduction Program; whereas, the program is working with reduced staff (was originally 226 positions versus the current complement of 190).

To keep pace with inspections of the increasing number of oil and gas wells and sites, the Office of Oil and Gas Management is exploring the implementation of a certified inspector program. Shiffer explained that the DEP Storage Tank Program has been operating a similar program for about 30 years and it is a model that could be used by the Oil and Gas Program to develop a certified inspector program.

Klapkowski added that this concept could also be applied in other ways such as the development of a certified well plugger program. This is only conceptual at this point, but it is an area that could be pursued if the certified inspector initiative proves to be successful.

UPDATE: FEDERAL PRIMACY FOR UNDERGROUND INJECTION CONTROL PROGRAM

Klapkowski reported that DEP has been in communication with the EPA regarding the process, expectations and requirements for Pennsylvania to pursue federal primacy for the Underground Injection Control (UIC) Program. The EPA announced a federal grant program that is funded by IIJA that would provide about \$2 million to a state that intends to seek primacy of the UIC Program. DEP is currently preparing an application to seek this funding and Klapkowski stated that the Department is considering pursuing primacy of other classes of wells.

Klapkowski said that the evaluation of Pennsylvania's primacy application will consist of a review of the following three elements: 1. whether Pennsylvania's program is as stringent as the federal program, 2. whether Pennsylvania has the same level of enforcement authority and 3. what level of resources (i.e., staff) DEP has to carry out an approved program.

Yoxtheimer asked when the Department plans to pursue federal primacy. Klapkowski responded that the process is neither fast nor easy so it is difficult to know how long the process will take.

LESSONS LEARNED REGARDING AREA OF REVIEW ASSOCIATED WITH UNCONVENTIONAL WELLS

Joel Keller, DEP Environmental Group Manager in the Subsurface Planning and Development Division, provided a verbal update about the Department's experiences with the Area of Review (AOR) provisions as contained in Sections 78a.52a and 78a.73 of Pennsylvania's Oil and Gas regulations. These sections of the regulations require operators of unconventional wells to locate other wells within 1,000 feet in all directions around the wellbore path and to monitor those wells to determine if communication occurs during the process of hydraulically fracturing and stimulating a well. The operator is also required to mail a questionnaire by certified mail to property owners in close proximity to the well.

Keller reported that as of March 2024, DEP received 5,400 AOR submittals and DEP has received 54 Well Communication Incident Notifications.

At this point, it is the Department's opinion that the AOR reporting process appears to be working. AOR surveys are resulting in the operators and the DEP identifying and evaluating known and unknown wells that may be impacted by hydraulic fracturing. Operators are using this data to assess potential impacts to offset wells and implement monitoring activities accordingly. If anomalies are observed at a well undergoing hydraulic fracturing or impacts are observed at offset wells, operators have notified DEP and communicated with adjacent operators. In instances where incidents have occurred, operators have been generally cooperative with the Department by pausing, ceasing, or modifying hydraulic fracturing operations as necessary.

DISCUSSION: DRAFT UNCONVENTIONAL SPILL POLICY

Klapkowski provided background and historical perspective on the current practice the Department uses to address spills on well sites. In 2013, the Department developed a spill policy that was modeled on the proposed Chapter 78 (conventional) rulemaking. Klapkowski pointed out that the conventional spill policy includes an alternative method that provides a means of cleaning up spills outside the requirements of the Act 2 cleanup process. Later in 2016 the Department included specific language in Chapter 78a.66 to provide the regulated community direction on what actions must be taken when spills occur on unconventional well sites and what reporting is required.

Given the current resource demands on the Oil and Gas Program and the information contained in the conventional spill policy and the Chapter 78a unconventional regulations, the Department has determined that, at this time, it does not plan to pursue the development of a separate Technical Guidance Document (TGD) related to spills on unconventional sites. Klapkowski thanked TAB and specifically commended Walentosky for his efforts in developing the concepts for the development of an unconventional spill policy.

Walentosky expressed disappointment with the decision of the Department to not pursue development of an unconventional spill policy. Walentosky stated that the purpose of this policy was to help with getting better consistency on how spills are managed at

unconventional well sites and to ensure all entities including industry, DEP and consultants are on the same page with how spills are to be managed. Walentosky stated that spills are the primary reason for the issuance of Notices of Violations by the Department so the proposed spill policy would provide useful guidance to industry and others. The proposed unconventional spill policy was based on the 2013 conventional spill policy and was mainly updated to address requirements that are contained in Chapter 78a.66. Walentosky stated that he is hopeful the Department will reconsider its decision.

Klapkowski acknowledged that some work remains within the Department to increase communications between the Oil and Gas Program and the Environmental Cleanup and Brownfields Program where oil and gas operations are occurring, but this is probably best handled through the development and amendment of Standard Operating Procedures and Frequently Asked Questions documents. Klapkowski also committed to developing additional training resources that could assist the regulated community in better knowing how to address spills on well sites. Walentosky stated that he remains willing to continue to assist the Department however needed to address this matter.

PROPOSED REGULATORY DEVELOPMENT AND TECHNICAL GUIDANCE DEVELOPMENT FOR 2024

Klapkowski updated the board on the regulatory and technical guidance documents that are under development or proposed to be developed during 2024. Klapkowski reminded the board that the Department publishes a written Regulatory Agenda and Non-Regulatory Agenda and posts them on the "Public Participation" page of the DEP website.

Klapkowski started with a discussion of rulemakings and highlighted three rulemaking packages. The first rulemaking will establish an annual fee that will provide a sustainable funding source to allow the Department to continue to administer Pennsylvania's Oil and Gas Program. Next, Klapkowski discussed the draft Environmental Protection Standards Rulemaking and the Waste Management Rulemaking. The Department has worked with the Pennsylvania Grade Crude Development Advisory Council (CDAC) to advance the Environmental Protection Standards Rulemaking and this package is positioned to soon go to the Environmental Quality Board for review and consideration. The Waste Management Rulemaking is trailing behind that rulemaking, but the Department plans to work with CDAC to review that rulemaking.

Next, Klapkowski discussed several policy and guidance documents that are included on the non-regulatory agenda. Before speaking to the oil and gas related documents, Klapkowski reminded the board that the Department published an Interim Final Environmental Justice Policy last year and plans to publish this as a final policy in the second quarter of 2024.

Klapkowski then provided a summary of the oil and gas policies and technical guidance documents that are under development including the Civil Penalty Assessment TGD,

Integrated Contingency Plan, Erosion and Sediment Control at Stormwater Management and Oil and Gas Facilities Policy, Prioritized Permit Review Policy and a draft policy to address the Dewatering of Well Development Impoundments. The board had no questions about the regulations and policies that are listed on the Regulatory Agenda and Non-Regulatory Agenda.

NEW BUSINESS

No new business

ADJOURNMENT

Yoxtheimer asked for a motion to adjourn the meeting. Walentosky made a motion and Baldassare seconded. The motion passed unanimously, and the meeting was adjourned at 3:29 pm.

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