

# MEETING MINUTES

## Oil and Gas Technical Advisory Board

June 6, 2023

### **TAB MEMBERS PRESENT**

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

Non-voting Advisors: Susan Brantley, Ph.D.

### **DEP STAFF PRESENT**

Todd Wallace, Joe Kelly, Ann Mathews, Don Hegburg, Myron Suchodolski, Harry Wise, Kathleen Ryan, Maximillian Schultz

### **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. Yoxtheimer called the meeting to order at about 10:00 a.m. and opened the meeting with a roll call of the TAB members and introductions of DEP staff.

### **APPROVAL OF MEETING MINUTES**

Yoxtheimer asked for a motion to approve the meeting minutes of the March 13, 2023 TAB meeting. Walentosky made a motion to approve the meeting minutes and Saunders seconded. Yoxtheimer asked if there was any further discussion or suggested edits to the meeting minutes. There was no further comment or discussion. The meeting minutes were approved unanimously.

### **PUBLIC COMMENT**

Yoxtheimer asked if any individuals registered in advance of the meeting to provide public comment. Wallace responded that one individual named Barbara Wendeborn Brandom, MD registered to provide public comment. Yoxtheimer invited Dr. Brandom to provide public comment.

Dr. Brandom introduced herself as a retired physician with a Master's degree from the School of Public Health in the University of Pittsburgh. Dr. Brandom stated she wanted to present to TAB some new data on the health risks of fracking. She began by summarizing a case control study from September 2022 of children diagnosed with Acute Lymphoblastic Leukemia (ALL) during the years from 2009 to 2017 that was published

in “*Environmental Health Perspectives*.” Dr. Brandom stated this study demonstrated that there is an association between unconventional oil and gas development (UOGD) and (ALL) in children. Carcinogens have been detected in the air and water waste around UOGD sites. These carcinogens include heavy metals, radioactive elements, benzene and polycyclic aromatic compounds associated with leukemia. The new finding of this study is that children who lived within 2 kilometers or 1.2 miles from a fracking well had 2 to 3 times greater risk of being diagnosed with ALL before 7 years of age. The findings of this study also suggest that drinking water contamination with UOGD wastes can produce similar health risks. Significant adverse health outcomes are also reported in adults.

Dr. Brandom stated that older studies report increased rates of asthma and other respiratory diseases in people living close to UOGD and in those living hundreds of miles away. As noted in these studies, in the context of the broader environmental and epidemiologic literature demonstrating the association between UOGD exposure and adverse health outcomes, policy makers need not wait for further research to enact more protective policies, such as much bigger set back distances from residences, day care facilities and schools. Dr. Brandom suggested at least five miles may be needed to preclude significantly increased health risks. Yet this is not enough to reduce all health risks from fracking. Dr. Brandom stated that if the number of permits for fracking wells to feed the production of Blue Hydrogen increase, that this decision will have significant negative impacts.

Yoxtheimer stated that it appears that one additional individual who is participating on the Teams call has asked for an opportunity to provide public comment. Wallace responded that Marie DeMarco did not register in advance of the meeting, but her microphone has been unmuted to allow her an opportunity to provide public comment. Ms. DeMarco stated that she is a Health Advocate and Medical Advocacy Coordinator and is employed at Physicians for Social Responsibility – Pennsylvania and has a Bachelor’s and Master’s degree in Public Health. Ms. DeMarco stated that hydraulic fracking is harmful to the health of the citizens of Pennsylvania and all over the nation. Ms. DeMarco stated that chemicals used in fracking can predispose individuals to risks of asthma and chronic obstructive pulmonary disease (COPD) and can cause risk of certain types of cancers and can contribute to infertility. Ms. Demarco stated that fracking can contribute to socio-psychological health issues and can increase anxiety and depression in affected individuals. She stated that there is no safe way to hydraulically fracture wells and urged DEP to seal all orphan and abandoned wells.

### **UPDATE ON GAS STORAGE WELL INTEGRITY INITIATIVES**

Hegburg reported that DEP performed a gap analysis of the Pennsylvania versus federal rules related to the natural gas storage and concluded that the state rules are generally as stringent or more stringent as the federal requirements.

DEP is taking a closer look at the way inspections are conducted and is particularly interested in single point of failure well designs and referenced a significant storage well

failure that occurred on November 6, 2022 at a storage well at the Rager Mountain oil and gas storage field.

Brantley asked what the latest thinking is regarding the cause of the Rager Mountain gas storage well release. Hegburg stated that a root cause analysis is currently being prepared as required per an Order issued by the federal Pipeline Hazardous Materials Safety Administration (PHMSA) so he is not able to speak directly to the matter, though it appears that a valve was breached as a result of natural gas getting into the well annulus where a gel material was present. Brantley asked Hegburg to describe why a gel is used in well construction. Hegburg explained that gels are often used in well construction to allow a well operator to more easily service an active well.

### **UPDATE ON DEP SEEKING UNDERGROUND INJECTION CONTROL PRIMACY**

Hegburg reported that the federal Infrastructure Investment and Jobs Act (IIJA) provides for a \$50 million grant to be awarded to states that plan to seek primacy of the federal underground injection control program. On March 5, 2023, DEP submitted a Notice of Intent to the U.S. EPA indicating its interest in seeking attainment of Class VI primacy. Twenty-five states submitted NOIs to seek this federal primacy so that could amount to about \$2.5 million in a grant award to the Pennsylvania DEP.

On May 16, 2023, DEP met virtually with the U.S. EPA Region 3 and EPA Headquarters staff to discuss the pre-application process and formal process for seeking primacy. The EPA intends to provide consultation and assistance via a third-party consultant to states that intend to seek primacy. The EPA encouraged the Pennsylvania DEP to seek primacy for all underground injection wells. The EPA indicated that it would probably be sometime in late summer before EPA releases the application for states to apply for the IIJA Primacy Grant.

Yoxtheimer asked if the IIJA Primacy Grant will allow more DEP employees to be added. Hegburg explained that the grant is a one-time source of funding that would offset the costs of Pennsylvania to apply for federal primacy and is not intended to pay for ongoing costs to administer the program. It's possible that there could be additional federal funding to help pay for the costs of running the program, but that would need to be negotiated separately with the EPA.

Brantley asked why DEP wants to seek federal primacy. Hegburg responded that if DEP maintained federal primacy it would result in permitting efficiencies. Brantley acknowledged that there is a need for energy, but she also stated that energy generation should be done in a manner as to not harm the environment. She asked what benefits federal primacy would bring to those who are concerned about the environment and would DEP add employees to its staff. Hegburg responded that the Department would need to conduct a workload analysis to determine what staffing needs would be necessary to implement this program. Wise stated that currently several steps are duplicated in the permitting process that could be streamlined and improved if DEP takes primacy.

Brantley stated that this seems to be more related to the general efficiency of permit reviews rather than safety issues related to underground injection at wells. Walsh stated that DEP's rules must be as stringent as federal rules, but could also be more stringent than federal rules.

### **ATTAINABLE BOTTOM – ACCEPTABLE AND ALTERNATE PRACTICES**

Hegburg explained that the topic of attainable bottom has been a topic that has been discussed previously with TAB and with the Pennsylvania Grade Crude Development Advisory Council (CDAC) and CDAC has requested DEP to restore the efforts of the "Attainable Bottom" workgroup. Yoxtheimer asked Hegburg to explain what the term "attainable bottom" means for the benefit of individuals who are attending the TAB meeting who are unfamiliar with the term. Hegburg explained that in order to effectively plug a well the well plugging operator is required to reach what is determined by DEP to be the attainable bottom of the well. Although it is not always possible for a well plugging operator to reach the actual bottom of the well due to circumstances such as debris in the well, the oil and gas inspector typically gets involved to reach a determination as to the attainable bottom of a well.

Wise explained that DEP temporarily suspended the efforts of the "Attainable Bottom Workgroup" due to competing priorities such as the workload associated with the implementation of the IJJA. DEP is willing to pick up discussions about re-establishing this workgroup sometime this fall. Wise suggested that rather than taking an approach of establishing a "pre-approved" attainable bottom it might be better for the workgroup to develop a checklist of acceptable criteria that can be used by the Department and industry to determine when an attainable bottom of a well is reached. This could serve as the starting point of the workgroup.

Saunders commented that there is a difference between wells that are owned and operated by viable operators versus old orphan and abandoned wells that have not been maintained over time. Wise agreed that there is a difference between such types of wells.

Brantley asked why an operator should not be required to simply drill through all debris that exists in a well to reach the actual bottom of the well. Brantley acknowledged there could be a higher cost to doing so, but why would the Department not require operators to "drill out" a well to reach the actual bottom of the well. Wise explained that often there is no actual information or knowledge about the actual depth of a well and that in some cases there are high risks of losing well drilling equipment in a well and sometime when a well has collapsed the act of attempting to drill further into a collapsed well causes more problems than benefits.

Baldassare provided one practical illustration where an abandoned well was located inside the structure of a building. In this situation, based on the expertise of those involved in considering all information associated with this well it was determined that attempting to reach the bottom of the well was not worth the potential risks that could have resulted.

Kaal interjected that based on her experience with well abandonment in southwest Pennsylvania the regional geology of sedimentary rock makes it good for both oil and gas exploration as well as coal development and there are underground hazards that can be associated in the situation where there are both oil and gas and coal activities involved.

## **UPDATE ON DRAFT TECHNICAL GUIDANCE DOCUMENTS**

### **Pressure Barrier Policy**

Hegburg stated that the requirement to develop a pressure barrier policy is contained in Chapter 78a.55 of the Oil and Gas Regulations and that a draft policy was published in the *Pennsylvania Bulletin* on August 29, 2020 with a 30-day comment period. The Department received 107 comments and reviewed and amended the policy as necessary. The final policy was published on May 6, 2023 and it included a “model guidance” within the policy. The Department will be offering training to DEP staff about this policy and will offer external training sometime in the fall of 2023.

### **ESCGP-3 Prioritized Review TGD**

Kelly reported that this TGD proposes to replace the existing “expedited review” process. A workgroup was formed and met about five times throughout 2019 and 2020 and a draft TGD was published for public comment. The Department received 184 comments and redrafted the document to address what was determined to be some subjective scoring criteria. These criteria were replaced with more qualitative criteria. Pursuant to the directive from the incoming Administration regarding permitting, the Department is awaiting direction on next steps associated with this TGD.

### **Integrated Contingency Plan (ICP) TGD**

Kelly explained that this TGD pulls together emergency response and pollution prevention requirements from both the Pennsylvania Emergency Management Agency (PEMA) and DEP. This document was developed to provide operators with a single document that addresses multiple requirements from both agencies. Kelly emphasized that this document is not mandatory, rather it is an optional tool that can be voluntarily used at the discretion of the regulated community. The draft ICP TGD was shared with TAB in 2022 and has been routed internally within DEP for review and approval. The next step is for this TGD to be published in the *Pennsylvania Bulletin* as final with a 30-day comment period.

## **STREAMLINING ELECTRONIC ONLINE DATA SUBMISSIONS (26R/WASTE PRODUCTION)**

Suchodolski reported that the current focus of the Oil and Gas Division of Data Management has been responding to the development of new data tools to support the Department’s efforts in responding to the implementation of IJJA. There is nothing to report at this time with regard to enhancements to 26R/Waste reporting.

Yoxtheimer mentioned that there had been discussion in forming a committee to examine 26R/Waste Reporting and if the Department would consider forming this committee in the near future. Suchodolski explained that his small Division is currently trying to fill two vacancies, but that when the Division is at full capacity he would support the formation and efforts of such a workgroup. Yoxtheimer stated that he will consult with the TAB members and approach the Department in the future about the possibility of forming this workgroup.

### **DIVISION OF DUTIES FAQ**

Kelly explained that certain practices are regulated by various DEP Programs and/or County Conservation Districts depending on the particular activity. Specifically, the activities pertain to the state regulations under Chapter 102 (Erosion/Sedimentation & Post-construction Stormwater Management) and Chapter 105 (Waterways, Obstructions and Encroachments). This Division of Duties FAQ narrowly focuses on the activities that fall with the Chapter 102 and Chapter 105 regulations. The FAQ document addresses permit reviews, site inspections and complaint investigations and includes a flow chart. Kelly provided a detailed description of the specific duties and the responsibilities of the particular Programs that have a role.

Walentosky asked when the FAQ Document is expected to be completed and Kelly responded that it should be completed within a couple of weeks.

### **USE OF TYPE 1L CEMENT IN WELL PLUGGING AND CONSTRUCTION ACTIVITIES**

Hegburg explained that cement manufacturers are moving away from the production of traditional cement blends to formulations that use different percentages of limestone that result in less generation of carbon dioxide in the manufacturing process. The cement industry refers to this “low carbon” cement as Type 1L and it is estimated that total carbon dioxide emissions across the nation could be reduced by about 8 percent when the cement industry fully switches to the manufacture of Type 1L cement.

DEP has consulted with the Ohio DEP and other states about the suitability of Type 1L cement as a product to plug wells and also in the use of well construction. Ohio has done the most research of any state in the country and contracted an independent evaluation of the use of Type 1L cement for plugging activities. Based on this evaluation, Type 1L was determined by the Ohio DEP to be suitable for well plugging activities and was approved for such use on September 2, 2022 in the state of Ohio. The evaluation did not determine whether Type 1L cement is suitable for use in well construction.

Based on the conclusions of the work that was conducted by the Ohio DEP, the Pennsylvania DEP plans to post a memorandum on the DEP oil and gas website approving Type 1L cement for plugging; but not for well construction activities.

Walentosky suggested that perhaps the use of Type 1L cement in plugging activities could be considered by the workgroup that DEP intends to form to examine the issue of “attainable bottom” as discussed earlier in the board meeting. Hegburg clarified that the Department is comfortable with the use of Type 1L cement for well plugging based on the independent analysis conducted by the Ohio DEP and does not believe further evaluation is necessary.

Yoxtheimer asked if there is a track record for other states using Type 1L cement, especially as it relates to plugging activities. Hegburg explained that several states accept the use of Type 1L cement, but DEP has most closely been in discussions with Ohio.

Yoxtheimer asked if any other states approve the use of Type 1L cement in well construction. Hegburg responded that he is not aware of any states, including Ohio, that have approved the use of Type 1L cement for well construction.

Yoxtheimer asked what next steps the Department plans to take regarding the approval of Type 1L cement in well plugging activities. Hegburg responded that the Department will take a similar approach as it did in the approval of Type L cement for use in well plugging. The Department will draft a memorandum that explains that Type 1L cement is acceptable for use in well plugging activities and the memorandum will be signed by Deputy Secretary Kurt Klapkowski. The memorandum will be posted to the DEP oil and gas website.

Yoxtheimer asked if either the Chapter 78 or Chapter 78a regulations include any specific provisions for the use of specific types of cement in well plugging or well construction activities. Hegburg explained that neither of these regulations specify particular cement formulations, rather the regulations merely include criteria that cement products must meet in order to be used for such purposes.

#### **UPDATE ON INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA)**

Hegburg provided a verbal update about the IIJA Initial Grant and Formula Grant. He explained that as of the date of the TAB meeting, 38 orphan/abandoned wells have been plugged. DEP is awaiting final draft guidance from the U.S. Department of Interior (DOI) regarding the Formula Grant and DEP intends to review and provide comment to DOI after it is published. Hegburg reminded TAB members that as a result of the passage of Act 96 and Act 136, twenty percent of IIJA Formula Grant monies must be allocated to an Orphan Well Plugging Grant Program that will be administered by DEP. The Department has 60-days from the date that the Formula Grant goes into effect to launch the Orphan Well Plugging Grant Program.

Brantley asked where the 38 orphan wells that have been plugged to date are distributed throughout Pennsylvania. Wise shared the locations of the wells that have been plugged thus far and stated the information is available on the DEP website. Wise explained that about 80 percent of all orphan and abandoned wells are located in Northwest

Pennsylvania so more wells are being plugged in that region than in other regions of the state.

Brantley asked if the Department has encountered any unexpected issues or learned anything from its experience in overseeing the wells that have been plugged to date. Wise explained that given the requirement to get Initial Grants in place within 90 days, that initial engineering access has been a struggle in some cases. Otherwise, the projects selected in the first round have been going fairly smoothly with some minor operational issues that some well plugging companies encountered such as well bore collapses. Brantley asked what type of companies were awarded well plugging contracts. Wise explained that all successful well plugging contractors are listed on the DEP website. He further explained that most of the well pluggers are small businesses with plugging experience.

## **NEW BUSINESS**

### **Administrative Extension of ESCGP-3**

Kelly reported that the Department intends to administratively extend ESCGP-3 to allow the Office of Oil and Gas Management more time to develop ESCGP-4. Kelly provided additional insight and background about the decision to administratively extend ESCGP-3.

Specifically, around the 2004-2005 timeframe the federal Clean Water Act was amended to exempt oil and gas activities from meeting federal stormwater standards. Therefore, the Office of Oil and Gas Management developed the ESCGP to address earthmoving activities at oil and gas sites to meet the Pennsylvania Chapter 102 regulations.

There are also earthmoving activities at “non” oil and gas sites but are regulated by the Pennsylvania Chapter 102 regulations that are addressed via the PAG-02 authorization by the DEP Bureau of Clean Waters. The PAG-02 authorization is due to be published on or about December 7, 2024. Since the ESCGP-3 is due to expire on October 6, 2023, the Office of Oil and Gas Management has decided to administratively extend the ESCGP-3 to allow sufficient time to see what the PAG-02 authorization will look like to determine if specific enhancements will need to be reflected in the ESCGP-4 that goes into effect when the ESCGP-3 expires.

### **Framing Issues for Future TAB Meetings**

Yoxtheimer explained that the Department has historically invited TAB to suggest topics to the Department for consideration to be added to meeting agendas for board meetings. The board requests that prior to future board meetings, the Department provide insight as to what topics the Department would like the board to provide technical advice to the Department. Yoxtheimer mentioned that he had an opportunity to discuss this issue recently with Deputy Secretary Kurt Klapkowski and it was agreed that future agendas could be framed in this manner.



Walentosky echoed the sentiments presented by Yoxtheimer and explained that having some sense as to topics that the Department would like the board to advise it on, will also allow the board members to consult with technical experts prior to each meeting. The goal is for the discussions to be as robust and productive as possible.

Wallace stated that the Department values the input and advice provided by the board. He explained that lately there has not been specific topics about regulations of a technical nature that is the statutory basis for the board to advise the Department, but it is also in the Department's interest to ensure that future discussions are productive and robust. Wallace thanked the board for their efforts in advising the Department.

#### Unconventional Spill Policy

Walentosky reported that work has been progressing on the development of an "Unconventional Spill Policy" and the board expects to soon finalize this document and present it to the Department perhaps as soon as the September 2023 TAB meeting. Walentosky mentioned that the document will probably look familiar since it is based on the Conventional Spill Policy that is currently in effect.

#### Chat Room Activity

Yoxtheimer mentioned at the close of the meeting that the board members noticed a lot of comments and activity in the "chat" section of the Teams meeting and it is not the intent of the board to ignore comments from the public, but he explained that the standard mechanism to receive public comment and to record such comment into the record is for members of the public to register to provide formal public comment. Individuals who wish to provide public comment for the record are encouraged to register to provide comment during that section of the meeting agenda in future TAB meetings.

#### ADJOURNMENT

Yoxtheimer asked if there was a motion to adjourn the meeting. Walentosky made a motion to adjourn the meeting and Kaal seconded. The motion passed unanimously, and the meeting was adjourned at 12:07 pm.