

MEETING MINUTES

Oil and Gas Technical Advisory Board November 22, 2016

TAB MEMBERS PRESENT

Voting Members: Bryan McConnell, P.G. (Chair), Robert Hendricks, P.G., Casey Saunders, P.E.

Non-voting Advisors: W. Michael Griffin, Ph.D., John Walliser, Esq. (via WebEx), Barbara Kutchko, Ph.D. (via WebEx)

DEP STAFF PRESENT

Scott Perry, Kurt Klappkowski, Seth Pelepko, Joe Kelly, Steve Brokenshire, Myron Suchodolski, Todd Wallace, Susan Ghoweri, Elizabeth Davis, Keith Saladore, Ann Mathew, Tara DeVore

CALL TO ORDER

A 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. This meeting was open to the public. McConnell (Chair) called the meeting to order at 10:02 am.

OPENING REMARKS

McConnell opened the meeting by inviting introductions of those in attendance and addressed several housekeeping matters (i.e., use microphones when speaking, emergency exits, etc.). McConnell asked Perry if he had any opening remarks on behalf of DEP and Perry stated that he had no remarks.

APPROVAL OF MINUTES - TAB

McConnell asked the members of TAB if there were any comments related to the draft June 23, 2016 joint TAB and Conventional Oil and Gas Advisory Committee (COGAC) meeting minutes. McConnell requested that the meeting minutes reflect two discussions that occurred at this meeting: the first pertained to a discussion related to a DEP document that outlined the requirements of Act 13 that were impacted by the passage of Senate Bill 279 (Act 52) and also a discussion regarding filters that could be incorporated into eFACTS to distinguish between conventional and unconventional searches.

McConnell requested a motion to approved the meeting minutes of the June 23, 2016 joint TAB and COGAC, as amended.

MOTION: Saunders moved to accept the June 23, 2016 draft meeting minutes, as amended. The motion was seconded by Hendricks. Motion carried unanimously.

Impact of Act 52 on Oil and Gas Act of 2012 (Act 13)

McConnell asked DEP to explain the impact of the passage of Act 52 on conventional operators with regard to compliance with Act 13. Klapkowski explained that although Act 52 abrogated some interpretive aspects of the Chapter 78 rulemaking, it did not affect the statutory obligations contained in Act 13. Klapkowski reminded TAB of a Frequently Asked Questions (FAQ) document that DEP authored at the time of the passage of Act 13 that outlined the impacts of Act 13 on conventional operators. Klapkowski stated that DEP would clean up this FAQ document (i.e., delete the bonding language) and share it with the TAB members.

Reporting Filters

McConnell asked Suchodolski to report on the matter that was discussed at the June 23, 2016 TAB/COGAC meeting regarding filters that could be incorporated into eFACTS to distinguish between conventional and unconventional searches. Suchodolski explained that he recalled the discussion at the TAB/COGAC meeting as it related to the request to modify the oil and gas compliance report viewer to distinguish between administrative and environmental violations (see page 8 of June 23, 2016 TAB/COGAC meeting minutes). Suchodolski did not recall a specific request from TAB or COGAC at the June 23, 2016 to make a distinction between conventional and unconventional operations. That said, Suchodolski stated that this change could be made; however, due to the current structure of eFACTS only primary site inspections can be distinguished (not site and client inspections). This will account for roughly 75 percent of all inspections. McConnell thanked Suchodolski.

WATER SUPPLY REPLACEMENT TECHNICAL GUIDANCE DOCUMENT

McConnell invited DEP to discuss the changes that were made to this guidance document prior to it being published for public comment. Perry mentioned that it was his understanding that TAB wanted to take this opportunity to provide comments to DEP regarding this guidance document and asked if there were any specific examples of issues.

McConnell responded that one of the main issues he is aware of relates to discussions during the workgroup meetings where it was suggested that DEP create a Standard Operating Procedure (SOP) that addresses timelines and processes as to how water supply investigations should be conducted. Perry responded that DEP amended its Complaint Policy to address these matters.

Brokenshire provided additional insights into discussions that occurred at the water supply replacement workgroup meetings. He explained that DEP received initial feedback from some workgroup participants that suggested DEP consider taking a

prescriptive approach that involved specific steps and timelines; however, the nature of water supply complaints often involves addressing potential site specific impacts on a case-by-case basis. This is why DEP approached the current policy in the manner that it did. Brokenshire echoed that DEP's policy titled "Standards and Guidelines for Identifying Tracking and Resolving Violations" that was published in January 2015 contains provisions that address a number of these issues. Brokenshire mentioned that he since discussed with Hendricks that DEP might consider including some language in training manuals to aid DEP staff in how water supply investigations should be conducted.

Hendricks acknowledged that he understands the purpose of the water supply replacement technical guidance is to be used as a post-determination document and that this issue be left open for further discussion to see what can be done in 2017. Hendricks commented that he appreciated the efforts of DEP in working to complete this guidance document.

McConnell asked about what administrative and technical actions could function as triggers to stop an investigation or get an investigation to the "off ramp" and whether these sorts of aspects could be incorporated into a separate SOP document. Perry stated that he appreciates these comments and believes that DEP has come a significant distance in evaluating water supply complaints and agrees that it would be helpful to document the various multiple lines of evidence for the sake of future use.

Hendricks added that DEP has lots of experience with characterizing and investigating spills, but it could further examine how best to consider situations that involve the presence of turbidity and methane impacts.

McConnell expressed appreciation for the efforts of the workgroup participants and DEP in getting the policy to its current form.

AREA OF REVIEW TECHNICAL GUIDANCE DOCUMENT

McConnell stated that since he did not participate directly on the Area of Review (AOR) workgroup he wanted to receive a general report from any members of TAB who did participate in the event that TAB should be on record with any issues related to this guidance document.

McConnell invited Hendricks to share any significant issues that surfaced during the workgroup meetings. Hendricks shared two observations with TAB related to how the AOR technical guidance document is being implemented in practical terms; but did not expect these issues to be resolved at the TAB meeting.

The first matter related to some complications with tracking survey responses from landowners. The example referenced by Hendricks involved a company mailing of the survey questionnaire to over one hundred landowners within 1,000 feet of the permitted vertical and lateral well bores at a 5-well pad site. The operator relies on the "green card"

(i.e., proof of delivery by U.S. Postal Service) as the mechanism to track when landowners received the area of review survey. He explained that it is sometimes a cumbersome process to track the survey mailings to ensure that landowners have received the prescribed 14-day timeframe in which to respond to the survey. Hendricks asked if DEP might consider some sort of a “cut-off” date to streamline an operators’ ability to meet this regulatory criterion.

The second matter relates to a small inconsistency in the AOR technical guidance document compared to the AOR survey questionnaire. The AOR guidance document does not require operators to include a map as part of the survey mailing; however, the written survey does reference the presence of a map.

Pelepko thanked Hendricks for these constructive comments and acknowledged that DEP has received a lot of input from the regulated community regarding the AOR technical guidance document and questionnaire. Pelepko explained that the public comment period of the AOR technical guidance document is currently opened and is scheduled to close on December 7. Pelepko expects that DEP will receive similar comments from commentators regarding the AOR technical guidance document and encouraged TAB and operators to submit comments to DEP prior to the close of the public comment period. Pelepko stated that he believes the survey is a good tool to fill some of the potential data gaps that historic maps and other related data might have missed. Pelepko encouraged operators to get out in front of projects by submitting the AOR surveys well in advance of scheduled projects.

COAL-GAS COORDINATION WORKGROUP

McConnell stated that a lot of good progress has been made with the efforts of the coal-gas coordination workgroup and it might be reaching a point to develop some sort of standard operating procedure (SOP) based on the finding of this workgroup. McConnell invited Saunders to provide a verbal update to TAB.

Saunders thanked DEP for its involvement and provided a special word of appreciation to Seth Pelepko, Bruce Jankura, Sue Ghoweri, DEP’s Bureau of Mine Safety and the federal Mine Safety and Health Administration (MSHA) for their efforts.

Saunders explained that the primary focus of this workgroup has been to examine scenarios related to the effective use and placement of well plugs in advance of mining in full extraction areas (aka, long-wall mining). Although the 1957 Coal Pillar Study addresses “room and pillar” mining, the focus of this workgroup is intended to address matters associated with longwall mining.

The two main issues that the workgroup continues to evaluate pertain to 1) chain pillar long-term stability requirements; timing of re-entry and distance of re-entry and 2) acceptable temporary plug schematics and re-entry procedures.

Saunders mentioned that several more workgroup meetings are scheduled through early 2017. Saunders explained that the culmination of the discussions will manifest itself through the development of the first coal pillar permit that is issued; which is anticipated to occur in less than two years from the present time.

Perry expressed concerns about what might result in a worse-case scenario if a newly drilled and hydraulically fractured well is “sheared” during long-wall mining. He suggested that the workgroup should consider this potential situation.

Saunders explained that the workgroup has considered this matter and has referenced an actual event that recently occurred in West Virginia. McConnell mentioned that he is aware the workgroup has explored similar case studies and although there could be some deviations, there is no evidence that there has been full shearing of a well.

Griffin asked about what the potential impact could be of a sheared well, and expressed concerns that such an event could be catastrophic. Saunders explained that it is his understanding that well plugs placed greater than 200 feet below a coal seam are generally stable.

Saunders asked DEP for a verbal update on the status of the completion and announcement of the JP Boyd study. Pelepko explained that the report is complete and the announcement is imminent. DEP plans to post this study on its website and will be publishing a press release. The time frame is likely to occur before the end of December.

PUBLIC COMMENT

McConnell invited comments from the general public.

No members of the public participating via the webinar offered comments; however, Teresa McCurdy (TD Connections) who was in attendance requested an opportunity to comment and inquired about the following topics:

With regard to the extra measures taken to ensure coal pillar stability, McCurdy asked if the coal or gas entity would be expected to pay the costs to ensure the stability of the coal pillar. Saunders explained that the tool being developed by the coal-gas workgroup is intended to be used by both the coal and gas industries. Although a coal company would need to provide consent, Saunders suggested that the coal and gas industries should work together in advance of coal extraction to work out a plan and to determine how costs that are incurred should be handled.

McCurdy asked Saunders to clarify the reference that he made earlier in the meeting that related to the two-year timeframe before the first coal pillar permit is issued. Saunders explained that the two-year reference pertains to CONSOL’s planning timeline. He mentioned that there is another major coal company in Pennsylvania that might have a different timeline.

UIC WELL PERMITTING & SEISMIC ISSUES RELATED TO OIL AND GAS ACTIVITIES

McConnell invited DEP to provide an update on the status of Underground Injection Control (UIC) disposal well permitting.

Perry explained that the process of permitting UIC disposal wells in Pennsylvania has taken a significant turn as a result of recent litigation brought against the Department by the Community Environmental Legal Defense Fund representing Highland Township. Specifically, the basis of this suit relates to the section of Chapter 91 that pertains to underground disposal of waste. It was determined that DEP must conduct an independent analysis regarding the integrity of UIC disposal wells that are to be constructed and groundwater protection must also be evaluated. DEP has developed a process to conduct these types of reviews.

Concurrently, the issue of seismic events has gained greater attention of the scientific community, industry and regulators. DEP has been in discussions with PGE and Seneca Resources about seismic monitoring of the proposed UIC disposal wells to be located in Grant Township, Indiana county and Highland Township, Elk county, respectively. DEP has developed permit conditions that involve seismic monitoring and plans to make this information available to the public through the PA IRIS system. DEP considers UIC disposal to be a viable means to manage waste production brines; however, it must be done in a responsible manner that does not create seismic hazards. Induced seismicity will be considered and case-by-case permit conditions will be developed as necessary depending on site specific conditions.

DEP is committed to ensuring the monitoring of potential seismic events, making this information available to the public and holding potential events to a magnitude of 2.0 or less on the Richter scale.

Hendricks asked if DEP plans to post something on its website explaining why DEP believes UIC disposal wells can be operated safely. Perry stated that DEP has already developed a Fact Sheet that states that disposal of brine fluids through disposal wells can be done safely, but will take this recommendation into consideration to determine what other information could be included on the DEP website.

Perry explained that DEP and industry should work together to prevent seismic events that could potentially occur from any one of the following situations:

1. With respect to tectonic events associated with hydraulic fracturing;
2. With respect to tectonic events associated with UIC disposal wells;
3. With respect to potential failure of wells that could be affected by long-wall mining operations

Perry explained that DEP is developing a process that requires specific precautionary actions to be conducted by industry prior a situation becoming more serious (i.e., yellow-

light versus red-light). Industry should take advantage of the “yellow light” threshold and modify operations before reaching a “red light” situation where an operator would be obligated to shut down operations.

Hendricks asked if DEP is developing a policy related to hydraulic fracturing. Perry responded in the affirmative and explained that DEP has been in discussions with the Ohio DEP as it relates to the seismic event that originated in Ohio and affected the Lawrence county area of Pennsylvania. DEP is developing a report on the Lawrence county seismic event with a variety of recommendations that will be publishing the report in the near future.

Hendricks asked if the existing USGS monitoring requirements will serve as the basis for seismic monitoring in Pennsylvania. Perry explained that operators would be required to install a monitors; however, DEP is still considering whether additional monitoring will be required.

CHAPTER 78a, SUBCHAPTER C IMPLEMENTATION

McConnell invited DEP to provide an update on the status of the implementation of the Chapter 78a, Subchapter C rulemaking.

Klapkowski reported that DEP has developed a system to track frequently asked questions (FAQs) that are received from the regulated community. Klapkowski stated that DEP welcomes any questions from industry.

DEP plans to offer a series of webinars to the regulated community to answer common questions about the rulemaking. The first webinar is scheduled for December 6.

Klapkowski stated that he received a question prior to the start of today’s TAB meeting about where the public can locate an official copy of the final Chapter 78a, Subchapter C rulemaking. He explained that the rulemaking and order was published in the October 8 edition of the *Pennsylvania Bulletin* and can be accessed as either a web document or in pdf format on the www.pabulletin.com website. Klapkowski stated that DEP is currently reviewing the galley sheets for publication in the PA Code and after the review is completed, the rulemaking will also be available to the public at the www.pacode.com website.

Klapkowski reported that a correction was subsequently published in the *Pennsylvania Bulletin* regarding the definition of “well development pipeline”. The word “and” was inadvertently omitted as originally published, so this correction was necessary to clarify the meaning of this term.

Klapkowski reported that DEP is in the process of moving the FAQs from the DEP “Webinar” web page to the Oil and Gas FAQ web page. Also, the FAQs will be reformatted so that the questions are categorized in the same order as the sections of the rulemaking to which they apply.

Klapkowski asked TAB members if there are any additional comments and/or questions regarding the implementation of the final rulemaking. McConnell did not have any questions, but commented on the possible impact of the ongoing litigation that enjoined several sections of the Chapter 78a Subchapter C rulemaking. Klapkowski acknowledged the possibility of future adjustments based on the outcome of this litigation.

The final topic discussed by Klapkowski pertained to the forms that are being developed to implement the various provisions of the rulemaking. DEP has received comments from industry related to the forms and has been making necessary adjustments. Klapkowski stated that if there are any additional questions remaining about the forms that are under development to please contact the Office of Oil and Gas Management.

Miscellaneous Issues

Hendricks stated that he had a few follow up questions regarding some of the points that were discussed during the Nov. 22 TAB meeting.

First, Hendricks asked Perry if DEP intends to allow for public comment on the seismic report that is currently under development. Perry responded that DEP plans to issue the report and will then develop and accept public comment on a policy for “Area of Alternative Methods for Hydraulic Fracturing of Utica Wells”.

Next, Hendricks asked for a clarification concerning the Tank Inspection Form and Instructions. Specifically, it is his understanding that the form and instructions are intended to serve as guidelines rather than being a required form that must be used by operators when conducting tank inspections. Klapkowski agreed that Hendricks’ understanding is correct and that DEP will clarify this on either the form or the instructions document. Hendricks suggested that it would be helpful if the instructions were amended to clarify this point.

Finally, Hendricks asked Perry for a clarification about paragraph (a) of Chapter 78a.68b, that governs well development pipelines that carry produced and versus fresh water. Perry responded that well development pipelines include pipelines that carry fresh water. Unless otherwise specified, the subsections in Chapter 78a.68b apply to both produced water and fresh water. This issue will be clarified in the FAQ document that will be posted to the Oil and Gas FAQ page.

OLD BUSINESS

McConnell suggested that DEP’s Spill Policy might require some additional edits and this policy should be kept in mind for future discussions.

McConnell stated that he was asked to inquire about the issue of Exemption 38 as it relates to the development of General Permit-5 (GP-5). Specifically, McConnell inquired

if TAB can play a role in the development of this general permit. Perry responded that perhaps DEP's air quality program could be invited to speak to TAB an upcoming meeting, but it is his understanding that GP-5 is pretty far along in the development phase. Davis mentioned that the draft GP-5 permit is scheduled to be posted for public comment the week of Nov. 22; in advance of the upcoming Air Quality Technical Advisory Committee (AQTAC) meeting scheduled for Dec. 8.

NEW BUSINESS

2017 Meeting Dates

Perry stated that the only matter of new business he is aware of relates to TAB meeting dates for calendar year 2017. McConnell responded that the following meeting dates are acceptable to TAB:

February 16 (Thursday)
May 18 (Thursday)
August 17 (Thursday)
November 16 (Thursday)

Perry reminded the TAB members that they should be prepared to conduct an election of officers at the next TAB meeting. McConnell stated that the TAB bylaws provide for a 2-year term of the board Chair and the current board composition was established in 2014; so elections are coming due.

Adjournment

MOTION: McConnell asked if there was a motion to adjourn the meeting. The motion was moved by Saunders and seconded by Hendricks. Motion passed unanimously and the meeting adjourned at 12:26 pm.