

MEETING MINUTES
Oil and Gas Technical Advisory Board
January 14, 2016

COGAC MEMBERS PRESENT

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

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

DEP STAFF PRESENT

Scott Perry, Kurt Klapkowski, Elizabeth Nolan, Joe Adams, Seth Pelepko, Myron Suchodolski, Sue Ghoweri, Todd Wallace, Jessica Shirley, Joe Kelly, Ann Mathew

CALL TO ORDER

A regular meeting of the Oil and Gas Technical Advisory Board (TAB) was held in Room 105 of the Rachel Carson State Office Building, Harrisburg, Pennsylvania on January 14, 2016. Bryan McConnell (Chair) called the meeting to order at 10:04 am.

OPENING REMARKS

Bryan McConnell, Chair (McConnell) opened the meeting and invited introductions of members of TAB and DEP meeting participants. McConnell stated that the order of the agenda items might be adjusted to accommodate the various individuals who are scheduled to deliver presentations to the board.

McConnell announced that a public comment period will be made available following the lunch break.

APPROVAL OF MINUTES

McConnell stated that the October 27, 2016 meeting minutes should be amended to reflect that Emily Krafjack participated in this meeting by way of WebEx. McConnell asked if any member of TAB wanted to move to accept the meeting minutes for the October 27, 2016 meeting.

Robert Hendricks (Hendricks) made a motion to accept the minutes as amended. Casey Saunders (Saunders) seconded. The committee approved the motion unanimously.

SUMMARY/OVERVIEW AND DISCUSSION OF FORMS REQUIRED TO IMPLEMENT THE FINAL RULEMAKING AMENDING CHAPTER 78 AND 78a

Kurt Klappkowski (Klappkowski), Director Bureau of Oil and Gas Planning and Program Management, explained that today's agenda is in large part intended to focus on various issues associated with the implementation of the final form Chapter 78/78a rulemaking package. Klappkowski stated that the final form Chapter 78/78a Subchapter C rulemaking was submitted to the Environmental Quality Board (EQB) on January 6, 2016 and the EQB will consider this rulemaking at its next regularly scheduled meeting on February 3, 2016. Klappkowski described for TAB the remaining steps and timeline associated with the review and approval of this rulemaking. Klappkowski stated that if the rulemaking proceeds along the described timeline that he expects the final rulemaking to be published in the *PA Bulletin* by late June 2016.

Klappkowski explained DEP's effort to develop and amend existing forms in order to align with the provisions of the final form rulemaking. He stated that it is DEP's intent to share draft forms with the TAB members more than two weeks prior to the next regularly scheduled TAB meeting on March 31, 2016.

Joe Adams (Adams) provided a verbal overview of the forms that are currently under development by staff within the Division of Well Development and Surface Activities. Adams explained that the forms related to this rulemaking fall into three categories. First there are new forms that do not currently exist and are under development; second, there are existing forms that require minor modifications; and third, there are existing forms that require more extensive modifications. Adams stated that ten new forms are under development and eight existing forms require extensive modifications.

Adams explained that DEP agreed to share with the members of the Conventional Oil and Gas Advisory Committee (COGAC) a list of all forms that are under development. Specifically, the list will include the name of the form and the statutory citation that it is intended to implement. Adams stated that DEP will also share this list with the members of TAB prior to the March 31 meeting.

Robert Hendricks (Hendricks) requested that the Department identify the forms that are intended to be made available in electronic format versus those forms that will be available only in hardcopy. Hendricks asked if this distinction can be identified on the list of forms that DEP agreed to develop and share with the members of TAB. Adams agreed to identify this aspect for each form that is included on the list.

In regard to the "Landowner Consent" form, McConnell asked Adams if DEP would consider including some language to advise a landowner if some level of liability will be borne by the landowner by the act of signing such form. Adams provided an example whereby an operator constructs a well pad and associated erosion and sedimentation controls but chooses to not proceed with drilling any gas wells. If the landowner intends to keep the well pad in place, then the landowner would likewise be responsible for maintaining the erosion and sedimentation controls in the future. Adams agreed to

consider developing language to be included on the Landowner Consent form to address situations that might place additional responsibilities on the landowner.

Fred Baldassare (Baldassare) asked if any new forms completed by the operator will require some sort of approval by DEP. Adams responded that DEP approval would be required prior to an operator conducting an activity associated with the Mine Influenced Water notification form and the Well Development Impoundment form. Adams stated that DEP intends to include clear direction in the instructions to such forms so that it is apparent to the operator that DEP approval is necessary prior to conducting the activity associated with the form.

Hendricks asked Adams if DEP intends to offer webinars or training to operators and the public regarding how to properly complete the new and revised forms prior to publication of the final rulemaking when it is finalized. Klapkowski stated that DEP plans to conduct internal training to DEP staff and will then offer training to the regulated community regarding the use of such forms. The training will likely consist of targeted and broad-based training sessions.

Seth Pelepko (Pelepko) provided a verbal overview of the forms that are currently under development by staff within the Division of Well Plugging and Subsurface Activities. Pelepko explained that his staff is developing four forms that are related to this rulemaking. The specific forms include: 1) Area of Review Summary Report; 2) Area of Review Incident Report Form; 3) Landowner Survey Form and 4) Well Adoption Permit.

The first two forms are intended to be electronic forms and the other two forms will be available in hard-copy only.

SUMMARY/OVERVIEW AND DISCUSSION OF DRAFT TECHNICAL GUIDANCE DOCUMENTS IMPLEMENTING CHAPTER 78 (AREA OF REVIEW AND WATER SUPPLY REPLACEMENT)

Klapkowski explained that DEP intends to advance two Technical Guidance Documents (TGDs) that serve to implement portions of the Chapter 78/78a final form rulemaking. The guidance includes the Area of Review (AOR) TGD and the Water Supply Replacement TGD. Klapkowski stated that the Department does not typically initiate the development of technical guidance documents to implement an environmental regulation until a regulation is finalized. However, in the interest of facilitating a smooth transition to the final rulemaking, DEP has decided to expedite the development of these TGDs.

Klapkowski stated that although these two draft TGDs are not available to share today, DEP plans to share both TGDs with the TAB members more than two weeks before the March 31 TAB meeting. He also stated in accordance with Department policy, both guidance documents will undergo a formal 30-day public comment period following publication of availability in the *PA Bulletin*.

McConnell requested that he be selected to participate on the Water Supply Replacement TGD stakeholder workgroup that will be formed. Klapkowski agreed.

Hendricks asked as a matter of process whether the Water Supply Replacement TGD stakeholder workgroup will have an opportunity to review any comments received after the Water Supply Replacement TGD is published for 30-day public comment. Klapkowski explained that there is no standard process for this and that it would depend on several factors such as the volume of comments that are received and the nature of those comments. Perry explained that the Department would handle this similar to how it handled the Spill Policy. DEP will share the draft TGD with TAB. After the public comments are considered by the Department, the final draft TGD will be presented to TAB for review and comment.

Area of Review (AOR) Draft Technical Guidance Document

Pelepko explained that DEP assembled a workgroup in October 2015 to assist with the development of this draft TGD. This workgroup has already met to develop the various chapters of this guidance. A working timeline has been established to ensure that the components of this TGD are completed in a timely manner.

Pelepko explained that the AOR Technical Guidance Document is intended to provide direction to both unconventional and conventional operators. Pelepko acknowledged the distinction between the conventional and unconventional industry practices and believes the TGD is designed to accommodate both sectors.

Water Supply Replacement Draft Technical Guidance Document

Adams explained that staff from the Division of Well Development and Surface Activities has been working on the development of this TGD since last summer. DEP conducted an extensive review of existing technical guidance and coordinated internally with DEP's District oil and gas staff.

Adams stated that DEP intends to convene a stakeholder workgroup to review the draft Water Supply Replacement TGD. Adams explained that he welcomes any members of TAB who would like to participate on this workgroup. Adams extended the same invitation to members of COGAC at its committee meeting on January 13, 2016.

The following TAB members volunteered to participate on this stakeholder workgroup: Bryan McConnell, Robert Hendricks, David Yoxtheimer, Fred Baldassare and John Walliser.

Hendricks asked if DEP will consider including individuals with some divergent views and experience such as members of academia and other such professionals. Adams agreed that it is his intent to do so.

WASTE REPORTING CODES UPDATE

Chris Solloway (Solloway), Program Specialist, of DEP's Bureau of Waste Management provided a PowerPoint presentation regarding new residual waste codes that have been developed by DEP to more effectively track the types of waste that are generated and disposed of during normal oil and gas activities.

Solloway reported that the Bureau of Waste Management reached out to the PA Waste Industries Association (PWIA), the Marcellus Shale Coalition (MSC) and the PA Independent Oil and Gas Association (PIOGA) during the process of updating the residual waste codes.

McConnell inquired why TAB was not consulted during the regulatory process. Solloway clarified that this matter did not pertain to the development of a regulation or technical guidance document; therefore, it was not germane for TAB's review. Klapkowski further added that this effort was mainly to ensure that there is consistency between landfills and oil and gas operators in the manner that they identify and classify residual wastes.

A copy of this PowerPoint presentation is available on the TAB web page.

CLEAN POWER PLAN PRESENTATION

Jessica Shirley of DEP's Policy Office provided a presentation to the members of TAB regarding EPA's Clean Power Plan. A copy of the PowerPoint presentation is available on the TAB web page.

[LUNCH BREAK]

PUBLIC COMMENT:

Chairman McConnell extended an opportunity for members of the public to provide public comment to the board. No individuals in attendance (either in person or participating via the WebEx) requested an opportunity to provide public comment to the board.

PRESENTATION/DISCUSSION REGARDING PENNSYLVANIA CONSERVATION EXPLORER AND PNDI PROJECT SCREENING

The following individuals provided a PowerPoint presentation about the PA Conservation Explorer and PNDI project screening tool and responded to questions from the committee:

Ellen Shultzabarger, Department of Conservation and Natural Resources
Gregory Podniesinski, Department of Conservation and Natural Resources
Mark Hartle, PA Fish and Boat Commission
Heather Smiles, PA Fish and Boat Commission

Douglas Gross, PA Game Commission
Michael DiMatteo, PA Game Commission

A copy of this PowerPoint presentation is available on the TAB web page.

SEISMIC MONITORING NETWORK UPDATE

Pelepko provided a verbal updated on the status of the seismic monitoring network.

Between February 2013 and December 2014, the Pennsylvania State University (PSU) conducted a study to assess seismic activity throughout Pennsylvania. This seismic study recorded and analyzed 1,355 seismic events.

Eleven (11) out of 1,355 events were determined to be “tectonic” events that resulted from subsurface geologic shifts. These were all classified as microseismic events. The other events were predominately attributed to surface and subsurface mining activities. No events could be attributed to oil and gas activities or associated underground injection well operations.

The Department of Conservation and Natural Resources (DCNR) previously entered into a contract with PSU to maintain a number of seismometers and seismographs (aka – seismic monitoring network). DCNR approached DEP about partnering in an effort to expand the current seismic monitoring network infrastructure in Pennsylvania.

The current seismic network in Pennsylvania consists of 20 stationary seismic monitoring stations (10 operated by PSU and 10 operated by other organizations). The expanded seismic network will add 22 seismic monitors for a total of 42 permanent stationary monitoring stations. Also, 5 portable seismic stations will be part of the seismic monitoring network. (Note: *There are 17 additional permanent seismic monitors located in adjacent states, but in close proximity to Pennsylvania’s border*).

The data obtained from the seismic monitoring network administered by PSU will be archived in the PSU Data Management Center and made openly available using web tools. This expanded seismic network is intended to provide a better understanding of seismic events that occur throughout Pennsylvania.

Pelepko stated that during the COGAC meeting on January 13, 2016, DEP agreed to provide the following information to the Committee: copy of the PowerPoint presentation prepared by PSU and presented to DEP; copy of a report that accompanied the PSU PowerPoint presentation; and a map showing the locations of the seismic monitors in the PSU network. Pelepko offered to provide this same information to TAB.

WELL COMPLETION REPORT UPDATE

Myron Suchodolski (Suchodolski) provided a PowerPoint presentation to update the members of the committee about DEP’s well completion reporting requirements.

Suchodolski explained that DEP conducted outreach during the development of the draft well completion report form and received input from the Marcellus Shale Coalition, the Pennsylvania Grade Crude Coalition and the American Petroleum Institute of Pennsylvania (API-PA). In October 2015 DEP released a draft version of the well completion report form. In December 2015, DEP made some minor revisions to the well completion report form and made it available to the operators. Although DEP originally intended to require that the revised well completion report form would be mandatory as of March 1, 2016, the electronic well completion report form (aka, eCompletion Report Form) is still under development within DEP's Bureau of Information Technology; therefore, the October 2015 version of the report is currently that which DEP is requiring to be submitted to DEP. After the eCompletion Report Form is finalized, DEP will notify operators that the revised form is available for use.

A copy of this PowerPoint presentation is available on the TAB web page.

COAL AND GAS COORDINATION ISSUES

Perry explained that this topic was placed on the agenda to allow TAB members the opportunity to discuss various coal and gas coordination issues with the Department. In particular, DEP is interested in receiving feedback from TAB as it relates to the ability for third parties to adopt abandoned wells that penetrate workable coal seams for the purpose of putting the wells back into production. DEP is also interested in receiving feedback about what coal operators might want to see included in a well adoption permit that could be developed by DEP in the future.

In particular, Casey Saunders (Saunders) expressed interest in this area during prior TAB meetings, so Perry asked Saunders if there are specific issues that he wanted to discuss.

Saunders explained that there are at least four issues that should be addressed. The first issue pertains to that of well surveying. The number of gas wells being drilled over and through workable coal seams is significant. One potential improvement could be to better identify gas well locations with respect to workable coal seams by surveying well surface locations before and after drilling. Saunders stated that he has proposed regulatory language that speaks to this issue, but he explained that more discussion on this topic is necessary.

Next, Saunders stated that there should be better coordination and communication between companies that install gas pipelines and owners of coal resources. This issue is becoming more important as pipeline infrastructure is built out across Pennsylvania.

Third, Saunders explained that when gas wells are plugged they are generally plugged to two separate performance standards. Saunders described these as general oil and gas standards versus standards that must be achieved when a gas well in a workable coal seam is mined through. The performance requirements when mining through a gas well located in a workable coal seam are more stringent than when a protective pillar will be left in place around the well. There should be more discussion among the gas and coal

industries to ensure that appropriate plugging techniques are achieved for wells installed through a workable coal seam.

Fourth, Saunders stated that the most important issue relates to the implications and outcome of the JT Boyd study that has been underway and its attempt to reach conclusions about effective practices for drilling gas wells through workable coal seams. Saunders suggested that the outcome of the study could result in either large amounts of coal left unmined or the need for gas wells to be permanently plugged. Saunders suggested that there should be a solution to ensure that oil and gas resources are shared between gas and coal operators.

Perry stated that DEP concluded its review of the JT Boyd study and is preparing a letter to be sent to JT Boyd that documents DEP's comments and concerns with the study. Until all concerns are resolved to DEP's satisfaction, the current coal pillar study that has been in effect since 1957 will remain the standard to be followed.

As it relates to the first two issues that Saunders raised above, Perry asked the gas industry to provide DEP with deviation survey data and gathering line information in a manner that DEP can create 3-Dimensional data depiction and map layers.

Perry requested that TAB consider creating a subcommittee to address the issues that were presented by Saunders. Perry stated that DEP would be willing to participate on the subcommittee as needed.

Hendricks made a motion to establish a subcommittee to address potential coal and gas coordination issues. Baldassare seconded the motion. The motion passed unanimously.

McConnell, Saunders, and Baldassare volunteered to participate on the coal and gas coordination subcommittee.

Pelepko suggested that TAB consider an upper limit of about 20 members of this committee in order to ensure that there is diverse representation, but limited to a size that will facilitate administrative efficiencies. Pelepko stated that there are three individuals from DEP's oil and gas program who are willing to participate on the subcommittee if requested. The oil and gas staff include Seth Pelepko, Douglas Catalano and Thomas Donahue. Pelepko also suggested that TAB consider inviting the following individuals from DEP's active and abandoned mine program: Thomas McKnight, Richard Wagner and John Tajc. These individuals have already been actively partnering with DEP's oil and gas program on related issues.

John Walliser (Walliser) suggested that TAB consider inviting Dr. Barbara Kutchko to participate on the subcommittee given her background and experience on these matters.

Pelepko suggested that TAB also consider reaching out to COGAC for any members of that committee who might be interested in participating on the coal and gas coordination

subcommittee. For example, David Yingling might be a good addition to the subcommittee.

Saunders stated that it would be good to attempt to pull the oil and gas coordination committee together within the next month.

NEW BUSINESS

Perry reminded the board that by the March 31, 2016 TAB meeting DEP would appreciate input regarding the most effective way that deviation well survey data and pipeline locational data can be collected by or provided to the Department in a way that lends itself to being displayed in a GIS format. At a minimum, DEP wants to collect deviation survey data and pipeline locational data on all new wells and pipelines that are installed. DEP would also like to gather similar information for existing wells and pipelines.

Baldassare asked the Department if the regulatory requirements contained in the final form Chapter 78/78a, Subchapter C rulemaking will be phased in over some period of time. Perry and Klapkowski explained that certain provisions of the rulemaking such as the tank and equipment standards will go into effect when the equipment is upgraded or replaced. Otherwise, the provisions of the rulemaking will generally become effective on publication in the *PA Bulletin*. Klapkowski assured TAB members that DEP will offer comprehensive training to the regulated community.

Adjournment

Yoxtheimer made a motion to adjourn the meeting and the motion was seconded by Saunders. Motion passed and meeting was adjourned at 3:00 pm.