

**Minutes of the Oil and Gas Technical Advisory Board Meeting
Rachel Carson State Office Building
Harrisburg, PA
May 28, 2009
10:00 A.M.**

A meeting of the Oil and Gas Technical Advisory Board (TAB) was held on May 28, 2009 in the 6th Floor Conference Room of the Rachel Carson State Office Building, Harrisburg. TAB members present were Chairman Robert Watson, Gary Slagel, Art Yingling and Sam Fragale. Ron Gilius, Dave English, Joseph Umholtz, Eugene Pine, Carol Daniels, Patti Davenport, Scott Perry, Craig Lobins, Alan Eichler and Dana Aunkst attended from DEP. Also attending were Nathan Bennett (DCNR Forestry), Chris Laughrey (DCNR Topographic/Geologic), Charity Fleenor (Penn Virginia Oil & Gas), Chris Underwood (ERM), Steve Hoffman (IRRC), Ted Gayman (Eichelbergers, Inc.), Bill Schnoor (Herbert, Rowland & Grubic, Inc.), Lou D'Amico (IOGA), Steve Rhoads (POGAM), Andrew Strassner (Tetra Tech), Jim Welty (K & L Gates), Chad Glunt (Nittany Engineering), and Pam Witmer (Bravo Group).

Agenda Item 1 – Introduction and Opening Remarks

The meeting was called to order by Chairman Watson at 10:00 a.m. and was followed by introductions.

Agenda Item 2 – Approval of Draft Minutes from March 26, 2009

The motion to approve the minutes from the last TAB meeting was made by Art Yingling, second by Sam Fragale. Minutes were approved.

Agenda Item 3 –The Marcellus Shale play in Pennsylvania – New paradigms for an old resource

Christopher Laughrey, from DCNR's Bureau of Topographic and Geologic Survey, conducted a comprehensive PowerPoint presentation for the Board on the Marcellus Shale in Pennsylvania. This presentation detailed the stratigraphy and sedimentary history of the Marcellus Formation, its mineralogy, structural geology, production and economic potential, as well as drilling-related issues, Marcellus risks and challenges, water use and disposal options and concerns.

Agenda Item 4 – TDS Strategy

Dana Aunkst, Bureau Director, Water Standards and Facility Regulations, Watershed Management gave the board a presentation on our current standings on Total Dissolved Solids (TDS) strategy.

Dana started off his presentation by explaining that back on April 15, Watershed Management rolled out the strategy for total dissolved solids (TDS). Also included in their analysis will be chloride and sulfate because they are seeing problems with those particular parameters as well in many watersheds.

By January 1, 2011, the new discharge standards for industrial wastewater that is high in TDS will take effect. The new strategy is aimed at prohibiting new sources of high-TDS wastewaters from entering the state's waterways. It will focus on those new sources that have the greatest potential to adversely affect the quality of Pennsylvania's receiving streams.

The Management Strategy is a two-tiered approach. This would be to establish effluent standards to level the playing field and provide additional protection for most sensitive water use through in-stream criteria.

The interim strategy which will be in place between April 1, 2009 and January 1, 2011, will focus on those new sources that have the greatest potential to adversely affect the quality of Pennsylvania's receiving streams. This would include treatment and disposal of the large amounts of flowback and production fluids that are coming from fracing Marcellus Wells. Also included in the interim strategy is encouraging reuse and recycling of wastewater as well as development of new deep injection disposal wells.

Dana's presentation also included the high TDS in industrial wastewater in the Monongahela River and the impending problem on a statewide level.

Regulatory changes to both Chapters 93 and 95 will be submitted to the Environmental Quality Board as proposed rulemaking in the next few months, with an opportunity for public comment. They will be completed prior to January of 2011.

Agenda Item 5 –Drilling projections for 2009

Dave English presented the members with a copy of the Bureau of Oil and Gas Management Year End Workload Report with categories of Well Permit Applications, Well Permit Applications in Process and Inspections. The report also showed data for the Southwest Regional Office, the Northwest Regional Office as well as Marcellus and non-Marcellus wells.

The Weekly Workload Report for the week of 5/18/2009 to 5/22/2009 was also discussed. It includes information on Marcellus Shale permit applications, well permit applications in process, inspections and wells drilled. Also, the Permit and Rig Activity Report (to date) for 2009 was also included. This report shows permits issued to date by month, county and well type, as well as new wells drilled by month.

Dave told the committee that the program costs are not just for the issuance of permits but also for inspections as well as enforcement follow ups. Dave mentioned the Northwest Regional Office said the inspections conducted last year by the Northwest Office Oil and Gas program were more than all the other regions of any other programs combined.

Discussion ensued about how many permits applied for were actually drilled. Steve Rhoads asked if in reality, what the report is stating, is that approximately 70 percent of the permits issued in a year are actually drilled based on historical numbers? Craig Lobins thought the figure is more around 80 to 85 percent due to permits being renewed and wells being redrilled.

Art Yingling stated he was trying to understand why so many permits are being issued when he learned at a recent board meeting they could not find any operator with more than a 50 percent increase over what they drilled in 2008 for 2009. Art also stated that he spoke with a major pipe supplier and was told that orders for all new pipe for 2009 are 40 to 60 percent lower from what they were in 2008. Dave responded that these numbers reflect historical data and he feels what is occurring is that there are a lot of permits in hand but not yet drilled.

Discussion ensued regarding the reports presented.

Agenda Item 6 – Proposed amendments to Act 214

Gary Slagel stated that under the Coal and Gas Resource Coordination Act in coal areas, the minimum distance between gas wells is 900 feet with the coal owner's consent. An effort was undertaken several months ago by the gas industry to see if the gas industry could meet with the coal industry and come up with a compromised resolution that worked to benefit both industries.

Gary continued by stating that general advice is to move in the direction of minimizing or eliminating the 900 foot well spacing. The gas industry proposed to the Pennsylvania Coal Association a very simple solution, and that is going into Section 7 of Act 214 and eliminating the sentence "*In no case shall the minimum distance between the proposed gas well and any other well be less than 900 feet pursuant to this subsection.*" However, the coal industry would still have the consent for that.

Gary continued by stating when they met with the coal industry, the initial effort was one where several concerns were raised by some of the coal producers regarding some inaccuracies they perceived in Act 214 dating back to when it was first enacted in 1984. One was in the operational definition of what an "active coal operation" was. The coal industry claims some wording in that definition indicates there has not been any real application of Act 214 in the application of coal operator's objecting to gas well placements. All resolution of gas well placement issues was completed under Act 243. However, because the definition of active coal operations in Act 214 has a word that reflects on escheat, projected and permitted but not yet operating, there are no coal mines that fit that definition because if they are projected and permitted, the mines are operating. According to the coal industry, by having the words "not operating" in the definition, nothing happens under Act 214.

Also discussed was expanding the definition of workable coal seams so they would no longer be objecting to gas well location within permitted, projective or applied areas of the coal mine, but basically any gas well location in any workable coal seam would be subjected by the coal owner.

Gary continued by stating that the gas industry is attempting to see if a middle ground could be found and particularly work hard with the coal industry to get them to see the value in at least allowing for clusters of wells, as was proposed, as a real benefit. Gary also mentioned that he felt they already did see the benefit of allowing clusters of wells as opposed to having a well every thousand feet especially in a long wall mine. There is no real resolution yet on how the gas industry is going to work this difference out with the coal industry.

Conversation continued on the historical aspects of Act 214 and what went into developing that Act back into 1984.

Ron Gilius mentioned that the Department is interested in moving forward to incorporate provisions that allow for multiple wells from one well site. Also, based on the projections we are hearing from the industry, we would want them to do six or more well locations on one single site in the coal area.

Gary continued by stating that this would be a chance for the coal and gas industry to work together and make some sense out of it while doing what is good for the environment as well as both industries. This would be a good opportunity and enable the industries to perform in an upfront manner in lieu of drilling all these conservation wells.

Agenda Item 7 – Gas wells in coal mine areas

Gary Slagel expressed concern that in a slowdown period there are still occasions where abandoned or orphan gas wells are being registered in front of coal extraction operations for the sole benefits of taking exorbitant amounts of money from the coal operator in exchange for making a deal to plug a well. He continued by explaining that the coal industry understands the value of getting these wells registered for the benefit of getting them on the inventory to know exactly where they are located. However, most of these wells would often be registered by the coal operator in the process of having to plug them. Therefore, we don't see any real benefit in allowing the surface owner to re-register or register these wells for the purpose of getting house or raw gas from them while operating them for a couple of years and then proceeding to get huge sums of money as a settlement so they can be plugged in the next coal mining operation. Gary also referred to the recent Barkley decision coming out of the Emerald Resources case.

Alan Eichler explained that wells were no longer being registered because of the recent Environmental Hearing Board ruling.

Discussion on this subject continued among the members and attendees.

Agenda Item 8 – Permitting process update

This item was covered under Agenda Item 5.

Agenda Item 9 – Proposed fee regulations

Copies of Annex A, Title 25 Environmental Protection Subpart C, Article 1, Chapter 78 Oil and Gas Wells as well as Oil and Gas Wells Fees (25 Pa. Code Chapter 78, Subchapter A) Comment and Response Document were provided for the members.

David English reviewed the fee schedule for vertical wells, non-vertical wells and Marcellus shale wells. The fee schedule reflected the various fees based on the type of well and the total

well bore length in feet up to 12,000 feet, as well as applicable fees for wells exceeding 12,000 feet.

Discussion continued among the members and attendees regarding the fee schedule and the overall purpose of the increase in fees.

The Comment and Response Document was also reviewed and discussed.

Agenda Item 10. Comments from the public

Comments from the public were addressed during the discussion of the various agenda items.

Upcoming Meeting Schedule

The next scheduled TAB meeting will be September 17 in the Rachel Carson State Office Building in Harrisburg.

Gary Slagel motioned the meeting be adjourned. The motion was second by Sam Fragale and the meeting adjourned at 12:50 pm.