

Minutes of July 22, 2013 meeting of the Marcellus Shale Safe Drilling Initiative Advisory Commission

Approved August 23, 2013

The Commission held its nineteenth meeting at Allegany College on July 22nd at 1:00pm. In attendance were Chairman David Vanko and Commission members Senator George Edwards, Commissioner James Raley, Commissioner William Valentine, Shawn Bender, Steve Bunker, Jeff Kupfer, Clifford Mitchell, Paul Roberts, Nick Weber, and Harry Weiss. Also in attendance were staff of state agencies and members of the public.

Minutes of the meetings of April 15, April 22, May 6 and May 17 were approved without changes.

Ms. Kenney reported that numerous persons and groups had requested that the public comment period be extended and that additional public meetings should be held. After discussion, Ms. Kenney made the decision to extend the period until September 10th. Chairman Vanko asked Ms. Kenney to provide the Commission with a summary of comments, especially any that might cause the State to make changes in the draft report.

Dr. Christine Conn then introduced Mr. John Quigley, who had been engaged by DNR to do research and provide a paper about comprehensive gas plans.

Mr. Quigley commended the Commissioners for their work, especially for the transparent manner in which it has been conducted. He described his background and experience, which included community economic development, serving as mayor of a town in Pennsylvania, and working in the private sector and for an environmental non-profit, after which he joined the Pennsylvania Department of Conservation and Natural Resources (DCNR), where he was directed to lease state forest land for shale gas development. He was asked by the Maryland Department of Natural Resources to suggest an approach that Maryland might take to be as protective of natural resources as possible.

Mr. Quigley's [presentation](#), which is available on MDE's website, described the need for Comprehensive Development Plans (CDP), the strong support for them across sectors, instances in which they have been used, and suggestions for implementation in Maryland.

Mr. Quigley said that the Pennsylvania Marcellus Shale Advisory Commission had observed that, if a CDP could work on state forest land, it could work on private land. He noted that Maryland has at least some of the resources and data needed to facilitate landscape level planning, but recommended that Maryland perform a gap analysis to review how well the appropriate departments are positioned to undertake, manage and enforce a CDP. He closed with the idea that communication and collaboration were essential, and that the process must be transparent.

Chairman Vanko then opened it up for questions. Commissioner Bunker asked if the process was the same whether the state owns the mineral rights or doesn't. Mr. Quigley

explained that where DCNR owned the mineral rights, it engaged in an iterative process with the gas companies to develop a CDP that would minimize the impact of shale gas development. Gas companies had to coordinate with DCNR and pre-plan all exploration and development activities on a tract level. Where DCNR did not own the mineral rights, DCNR tried to negotiate a Surface Use Agreement to incorporate as many of the protections as possible from a CDP. In most cases they did pretty well and industry was cooperative.

Commissioner Bunker followed up asking if companies work together on CDPs. Mr. Quigley said CDPs are usually done on a company-by-company basis, because the leased tracts are usually distinct. There had been some occasions when companies worked together, for example to use a single road, but not many.

Commissioner Weiss asked if Mr. Quigley could make any judgments about the success of the program after six or seven years. Mr. Quigley noted that the first Marcellus well was drilled on state forest only 3 years ago. Pennsylvania established and funded a monitoring unit that is evaluating the effects of shale gas development. Its first report is due very soon.

Commissioner Weiss followed up pointing out that the CDP will be effective only if the political will is firm and there is adequate enforcement. Mr. Quigley said that he didn't think any state has gotten this right yet. The industry must use best practices, and monitoring and enforcement are essential.

Commissioner Weber asked if it was possible to make this mandatory by regulation, or if there would there need to be a statute. Mr. Quigley pointed out that he is not a lawyer, but this can be done by regulation. Land management, GIS, monitoring, etc can be done by DNR and MDE. The essential skill sets are there and the gap analysis will identify new resources that are needed. That's straight management analysis.

Commissioner Weber asked particularly about scale of a CDP. Mr. Quigley said that the scale would be up to Maryland. In Pennsylvania it was done on a tract level. State agencies would have to sit down with the industry and figure it out. There is no standard size and the decision must be made transparently.

Commissioner Kupfer reminded the group that Mr. Quigley said that Maryland would be the first state to make a CDP mandatory and that mandatory is very different from voluntary. He asked Mr. Quigley if he could point to any specific citations in his paper where there was an explicit endorsement of a mandatory CDP. Mr. Quigley did not refer to any specific citations, but said that several agencies have called for mandatory exclusion zones and pointed out the need for a CDP. Commissioner Kupfer noted that these were different issues. Mr. Quigley disagreed, saying that as he read the source documents, these groups are saying that it is in everyone's interest to do comprehensive planning. Commissioner Kupfer said that everyone could agree that planning is a good thing, but it would be a major change to make it a mandatory part of the permit process in the way currently proposed.

Commissioner Kupfer questioned whether it is reasonable for a company to develop a five year development plan before it has drilled even one exploratory well. Mr. Quigley said that DCNR included both exploratory and production wells, and even seismic testing if it required digging holes for the explosives, and that it did not seem to be a deterrent to drilling on Pennsylvania forest lands. He noted that a company might revise its plan for well and pad location after an exploratory well, and that the planning was iterative. There must be a flexible process for changing the plan.

Commissioner Kupfer asked if this iterative process was a direct negotiation between the Pennsylvania agency and the company which would not include any public participation. Mr. Quigley acknowledged that the negotiations were conducted between the lessor (DCNR) and the lessee (gas company), but that certain changes would require a change to the drilling permit, which is issued by a different agency.

Commissioner Kupfer noted that Colorado has a voluntary program. He also stated that as a member of the Pennsylvania Marcellus Shale Commission, he did not agree with Mr. Quigley's earlier characterization of the Pennsylvania Marcellus Shale Advisory Commission's position on CDPs as supporting a mandatory requirement. Commissioner Kupfer then asked whether the current proposal contained adequate and predictable standards for approving a CDP. Mr. Quigley said that in Pennsylvania, there was a document – a long range forestry plan – that provided guidance beyond the mere standard. Mr. Quigley and Commissioner Kupfer agreed that all stakeholders would need to understand the rules and the processes up front, and to understand that technology changes over time. There must be an opportunity to revise the plan, even though a collaborative relationship between the government and the company may make some members of the public uneasy.

Commissioner Kupfer asked Mr. Quigley if he also advocated mandatory comprehensive planning for wind farms. Mr. Quigley said that he has not been asked, but that he was involved in a three year effort aimed at developing siting criteria for an agency in Pennsylvania to apply to wind farms.

Commissioner Roberts said that a couple of the reports Mr. Quigley referenced advocate a risk management approach. Mr. Quigley said that it's up to Maryland to decide whether to do a risk management study, but that from a natural resource perspective, a CDP has a risk management component.

Commissioner Roberts said that prevention of harm is the first goal, and that people near the drilling pads will suffer. There should not be "sacrifice zones." Mr. Quigley said that he does not use the term "sacrifice zone." Drilling for shale gas is ugly and resembles an industrial zone, but no form of energy production is entirely benign. The state should focus on determining the right setbacks, whether to allow impoundments, etc. You can minimize the risks and impacts with regulatory controls.

Commissioner Roberts asked if Mr. Quigley would support a severance tax to compensate those impacted by shale development. Mr. Quigley said that severance taxes could be useful for that purpose. Commissioner Roberts asked what Mr. Quigley meant by a “win-win” situation. Mr. Quigley said that it is a win-win if the environment is protected and gas production can go forward.

Commissioner Roberts noted that gas development would have an adverse impact on the landscape, agriculture and tourism. Dr. Eshleman had advocated a cap on gas development, and said that Pennsylvania restricted development to the lower of a number of wells or an amount of impervious surface. Mr. Quigley said that he was not aware of that requirement.

When asked about zoning, Mr. Quigley said that all governments should use zoning. There needs to be planning for economic development and preservation, for quality of life.

Commissioner Roberts asked Mr. Quigley about his position on a moratorium. Did Mr. Quigley testify in favor of a moratorium in Maryland? Mr. Quigley said that he testified in order to share his experiences in Pennsylvania. Did Mr. Quigley support a moratorium in Pennsylvania? Mr. Quigley said that it was obvious that a moratorium was not going to be imposed in Pennsylvania. The focus should be on identifying the best way to address energy needs. Renewables can't provide all the electricity we need, and the public health impacts of burning coal are well known and severe. We need balance. There is no free lunch.

Commissioner Bender noted that Garrett County has about 400,000 acres, owned by many different people – a situation different from DCNR's sole ownership of large acreage. Also, Maryland is on the fringe of the Marcellus Shale and is an unproven resource. A CDP is not realistic under these circumstances. Exploratory wells should be allowed without a CDP. Mr. Quigley said that individual landowners need the protection of an experienced lawyer. Maryland will have to work out the issue of exploratory wells; it was not an issue in Pennsylvania.

Dr. Mitchell asked if Pennsylvania agencies had capacity, in terms of skill sets and number of bodies, when Mr. Quigley was at DCNR. Mr. Quigley said that Pennsylvania DEP has been chronically understaffed. DCNR had the right skill set, but 130,000 new acres had been leased and they did not have enough people. It required 18 FTEs just to do the monitoring.

Commissioner Valentine noted that there has been no evidence of contamination of drinking water wells from fracking fluid and that it has been determined that fracking did not cause the contamination in Dimock, Pennsylvania. Mr. Quigley noted that the problem in Dimock was methane migration from improperly cemented wells. Mr. Quigley noted that there was a recent report from an ongoing study where fracking fluid, which was tagged with unique tracers and injected more than 8,000 feet below the surface, had not been detected one year later by monitoring at a depth of 5,000 feet.

These results were preliminary. The risk to groundwater and surface water has to do with spills, accidents, and failure to properly cement the well. There is a great need for pre- and post-drilling monitoring to detect and investigate reports of contamination.

Commissioner Webber asked how important an Environmental Assessment is in the Pennsylvania regulatory system. Mr. Quigley answered that the review process was not an Environmental Impact Statement, but that the agency as resource manager identified the sensitive areas. An applicant for a permit from Pennsylvania DER had to run a regulatory gauntlet that included an inventory of rare and endangered species, but that was required for all permits, not just shale gas permits.

Commissioner Bunker asked about the average area covered by a CDP. Mr. Quigley said that it was done for one company and one leased tract, and that the area ran from hundreds of acres to thousands of acres. It would be a challenge to deal with multiple operators.

Chairman Vanko thanked Mr. Quigley for his presentation and his time.

Following a break, Dr. Mitchell provided an update on the public health work. He said that after funding became available, MDE and the Department of Health and Mental Hygiene (DHMH) entered into a Memorandum of Understanding (MOU) in which DHMH agreed to oversee the study, which will be conducted by the Maryland Institute for Applied Environmental Health, part of the University of Maryland School of Public Health. The study will be independent, comprehensive and objective.

The basic framework for the study is in the MOU, but additional work will be done to develop a detailed work plan through a scoping process that will include public input. A baseline assessment of public health and public health resources will be made. Potential hazards, both chemical and physical, will be evaluated, as will impacts from population changes. Potential impacts in Maryland would be projected, based on experiences in areas where shale gas development is already occurring. The impacts will include those expected from normal operations, from upset conditions, and from cumulative and multiple exposures. The report will consider impacts on the general population and vulnerable populations. It will include recommendations for ongoing monitoring and assessment of public health. It will suggest potential mitigation strategies. It will consider whether there are potential health benefits. And it will include recommendations and next steps. An initial draft of the report is expected in April 2014, with a final report in July 2014.

Chairman Vanko reminded the group that Dr. Mitchell was not part of the Advisory Commission at the beginning, but was added because of a perceived need for public health expertise. Maryland's was the first advisory commission to include a public health expert.

Commissioner Roberts asked if the Institute would interview people in Pennsylvania and West Virginia who have been impacted. Dr. Mitchell said that this suggestion should be

directed to the contractor in the scoping process; because he will ultimately look at the report in his role as a Commissioner, he is trying not to directly influence the study design.

Commissioner Weber asked whether a risk analysis would be included and whether best practices would be recommended. Dr. Mitchell said that he has avoided terms like Health Impact Assessment, quantitative risk assessment, and risk analysis. The report should capture information about risk and may have elements of a risk assessment, but the Institute will determine that.

Commissioner Weiss asked if the Institute would consult with the team undertaking the Geisinger study in Pennsylvania and use whatever data they have. Dr. Mitchell again said that it would be up to the contractor, and that is not clear whether the Geisinger study has generated any data. It might be possible to have a conversation with Dr. Brian Schwartz, a former colleague who is Director of the Health Institute involved in the Geisinger study.

Chairman Vanko asked if the baseline study would include Allegany County. Dr. Mitchell said that it would include those parts of Allegany County that overlie the Marcellus Shale.

The floor was then opened to public comments.

Eric Robison asked Mr. Quigley about the relationship between a CDP and risk analysis. Wouldn't a risk analysis identify gaps in best practices? Mr. Quigley said that his focus in Pennsylvania had been on landscape level planning. To the extent that this included a consideration of steep slopes, the potential for forest fragmentation, the impact on viewsheds, etc., it was inherently like a risk analysis of the potential harms and what could be done to avoid them.

Mr. Robison asked which came first, the CDP or the lease. Mr. Quigley said that there was a tract level environmental review before the lease was entered into. All the provisions for the CDP are included in the lease document.

Mr. Robison asked how pipelines were addressed in Pennsylvania. Mr. Quigley said that the location of the gathering lines were discussed with the operator, and Pennsylvania already knew where the transmission lines were. He said that Maryland needs to figure out who regulates what and bring FERC and the PSC into the discussion. He noted that transmission lines are not put in by the driller or operator, but by a different entity.

Commissioner Roberts asked about compressors on intrastate pipelines. Mr. Quigley said that FERC regulates interstate lines and some compressor stations. Intrastate pipelines and smaller compressors are regulated by the state, but often the smaller compressors only need an air permit. In Pennsylvania, the setbacks from compressor stations are inadequate – they could be located immediately adjacent to a school.

Chairman Vanko asked if all the gathering lines are underground. Mr. Quigley said that gathering lines are sometimes buried and sometimes on the surface.

Nadine Grabania asked if tracer chemicals can be used to track movement of fracking fluids underground. Mr. Quigley said that it was possible. He mentioned again the recent report from an ongoing DOE study involving fracking fluids with tracers. He pointed out that it was just one well and just one year. He also noted that, to his knowledge, no regulatory agency has yet required the use of tracers.

Chairman Vanko thanked everyone for their attendance and adjourned the meeting at 4:16 pm.