

**Roundtable Issues Forum  
Hyatt Regency Cincinnati  
Cincinnati, Ohio  
Wednesday, February 8, 2012**

**Opening**

Commission Chairman Chuck Duritsa opened the Roundtable forum with introductory remarks addressing all three session topics, Shale Gas Development, Proposed Revisions to the Commission's Pollution Control Standards, and Variances to the Pollution Control Standards.

**The Role of ORSANCO in Shale Gas Development in the Ohio River Basin**

*The Water Quality Review Committee has been considering this issue. Information will be presented on the current extent of gas drilling, what states are doing in the areas of waste disposal and water quality monitoring, and what other interstate basin commissions are doing. We will then hear an industry perspective on the outlook for further development and the information needed to assure that development proceeds in an environmentally sound manner.*

**Summary**

For background information Chairman Duritsa deferred to Commissioner Bruny to set the stage regarding shale gas development in the Ohio River basin.

Commissioner Bruny commented that gas well drilling in the Ohio River basin is nothing new, but new horizontal drilling technologies have significantly increased gas well production. Characterizing the drilling process and framing one component of the issue, Commissioner Bruny stated that a vertical well bore is drilled down to the underlying gas producing shales, i.e., Marcellus or Utica. Horizontal drilling techniques are then used to extend the bore hole laterally up to 5,000 feet or more which significantly increases the gas harvesting dimension. Concrete casings in the vertical well section serve to isolate bore hole products from drinking water producing strata and other non-target geologic formations. Water, up to 5 million gallons, is pumped down the bore hole to hydrofrac the well, fracturing the shale which creates fissures from which gas can seep, increasing well productivity. Approximately 0.5 to 1 million gallons of the frac water is discharged from the well following the fracking procedure. Called "blow back" water, this water is to be differentiated from the water that comes out of the well while producing gas, which is called "produce water". The disposal of blow back water was initially and environmentally problematic as few regulations existed to guide gas well developers in safely disposing of this material. However, regulations have been established regarding disposal and treatment and industry practices now find most, if not all blow back water being recycled to other well fracking operations or disposed of through deep well injection. Following Commissioner Bruny's comments, Jason Heath provided a presentation titled, "ORSANCO's Potential Role in Shale Gas Development" (presentation attached). Jason's presentation overviewed the drilling activity in the Ohio Basin in Pennsylvania, West Virginia and Ohio; state well waste water disposal requirements and surface water quality monitoring activities.

Questions and discussion following Jason's presentation addressed taste and odor problems associated with frac water constituents, primarily those associated with Total Dissolved Solids (TDS). Ron Bargiel, Chairman of the Water Users advisory committee commented that even during the 2008 elevated TDS episode on the Monongahela River, taste and odor was not an issue for consumers; spotting caused by hard water constituents, i.e., sulfates and chlorides, were the basis for complaints. Bromide and the cumulative effect brominated trihalomethanes (THMs) may have on total THM levels were a source of concern during the 2008 event and continue as a concern today.

Commissioner Komoroski provided comments and correction to information contained in Jason's report, specifically with respect to a map in his presentation that indicated the presence of Marcellus gas wells in southern West Virginia or eastern Kentucky. Commissioner Komoroski stated there are no Marcellus wells in southern West Virginia or eastern Kentucky. In addition, gas wells may not be drilled in New York in the near future due to the depression of gas prices, falling from \$13/mcf (million cubic feet) to \$2/mcf. As such, production is beginning to migrate to wells in extreme western PA, WV and eastern Ohio where older shale deposits produce "wet gas", i.e., gas that is laden with hydrocarbon compounds such as propane, butane and ethane. Pricing for these hydrocarbons is linked to oil prices, not gas prices. Therefore, an increase in wet gas well development is anticipated along with a corresponding slow down in dry gas well development until such time as pricing is more favorable for dry gas well development and production.

Mr. Komoroski then introduced the next speaker, Mr. Pete Miller, Water Resource Manager for Range Resources. Mr. Miller provided an overview of water use and management as conducted by Range Resources. Mr. Miller's presentation is attached.

Following Mr. Miller's presentation, comment provided by Commissioner Easterly, Indiana, stated that he did not want ORSANCO general funds to be diverted to study, research, etc. the shale gas impacts issue as it does not directly affect Ohio River water quality for all mainstem states. Water quality issues should be addressed through the Pollution Control Standards, while water quantity should be addressed by the water resources efforts of the Commission; however that program has not advanced yet to that point. States with specific needs in this area should find funds to underwrite Commission staff activities in this area.

Commission Executive Director Tennant suggested that perhaps a shale industry advisory committee be formed to identify industry related issues to the Commission and provide the forum for dialogue on solutions and to facilitate communications.

Commissioner Flannery cautioned that the Commission should keep involved in this issue to assure that pressures to take regulatory actions to chase down issues that are already being treated are not being done in the name of shale gas development.

Commissioner Duritsa asked about the soil erosion and sedimentation issues stemming from the land being disrupted by gas collection and transmission line construction and placement. He suggested that literally thousands of acres of land are being developed through this process and no controls are required to contain wet weather run-off materials. Gas line development is exempt from this provision in federal law; however states are taking action to develop legislation to control such problems.

Commissioner Flannery stated that there is a raging debate with aggressive legislative and regulatory activity occurring, and that the Commission should take comfort in the regulatory activity. He suggested that ORSANCO should take the position of “Don’t mess with our river; don’t discharge that stuff to surface streams”, and that we will continue to encourage our water resources committee to take the lead on the water resource component of the issue. Through these state initiated legislative and regulatory activities, Commissioner Duritsa’s question and concern for erosion and sedimentation, and other such concerns, will be addressed.

Commissioner Bruny suggested an annual update on this issue be provided and that the Roundtable forum provides an excellent opportunity for presentation and discussion of this issue.

Ron Bargiel expressed concern from the drinking water utility perspective commenting that there is still concern for the illicit discharge of fracking fluids to surface waters stating that it’s not the larger companies that are the concern but the smaller haulers that fail to comply with industry standards that give the large companies and the industry in general the black eye.

### **Proposed Revisions to the ORSANCO Pollution Control Standards**

*The Pollution Control Standards Committee has considered comments received in the review of the Standards and is now ready to propose certain revisions. Some of the revisions are fairly straightforward – revised criteria for temperature and bacteria, deletion of a selenium criterion that has been withdrawn by US EPA. The Committee is also proposing a reorganization of the Standards document which, it is hoped, will make the document easier to navigate.*

### **Summary**

Commissioner Easterly, Chair of the Pollution Control Standards Committee provided an overview and report to the Commissioners on the issues for which revisions are under consideration: A reorganization of the Standards has been developed Commissioner Easterly stated his support for the reorganization to make the Standards a more understandable and useful document.

While a number of comments received on the need for a bromide criterion, Commissioner Easterly suggested that it may be too early to take such action as there is currently no scientific basis a bromide criterion. Regarding mercury, he stated that the current fish tissue concentration limit for methyl mercury, which is used for the development of health advisories, is the number that is most respected. While a water quality criterion for methyl mercury is desirable, he did not feel that adequate data currently exists to calculate an ambient criterion. With respect to temperature criteria, he suggested that the limit recommended for human health protection by the temperature criteria workgroup should be adopted. For aquatic life protection, proposed revisions to the current criteria are undergoing final editing by the work group and will probably be proposed in this review. Regarding pathogens, he suggested using information contained in the ORSANCO recreational use study; however, as this study has been tabled by the Commission, it may not be advisable to pick and choose sections from the study for selective use. With respect to the current selenium criterion, he suggested the chronic criterion be retained while the current acute criterion is removed, as the basis for the acute number is speculative, at best.

## **Variations to ORSANCO Pollution Control Standards**

*The Commission Standards have contained a variance provision since 1984. In the late 1980s and early 1990s, approximately ten variances were granted to allow small wastewater treatment facilities to practice seasonal disinfection. The granting of such variances was discontinued in the mid 1990s, and no variances have been requested for over 15 years. In 2010, provision for consideration of variances was extended to Section VI.G of the Standards which calls for elimination of mixing zones for Bioaccumulative Chemicals of Concern by October, 2013.*

### **Summary**

The Pollution Control Standards Committee has been working on a document to set forth the process by which a variance request is submitted and considered. Commissioner Easterly provided an overview of the current draft document.

### **Comments and Discussions:**

Commissioner Frevert asked if concurrence from affected states is necessary.

Ron Schwartz posed questions regarding voting issues such as do upstream states have an equal opportunity to vote for or against a variance request: Similarly, do federal commissioners have a vote in the process?

Commissioner Bruny asked if the Commission's variance process will be finalized before the PPG variance request is finalized?

Commissioner Flannery questioned if the variance should be considered through the normal ORSANCO Standards Review process?

Commissioner Easterly asked how any decision by ORSANCO on a variance would be appealed.

Ron Schwartz suggested a wording change needs to be made to the variance section in the Pollution Control Standards.

Commissioner Frevert stated that the variance process does not need to be formally adopted as it constitutes guidance, not a Standard.

No resolutions to these questions were forthcoming from this exchange. The issues raised will be vetted with the Commission's Pollution Control Standards committee.