



August 5, 2011

Renee Stone
U.S. Department of Energy
1000 Independence Avenue, SW
Washington D.C. 20585

**Re: Secretary of Energy Advisory Board Natural Gas Subcommittee on “Fracking”
Issues Recommendations to the Department of Energy’s recommendations to the
President for the “Blueprint for a Secure Energy Future”**

Dear Ms. Stone and Committee Members,

Delaware Riverkeeper Network (DRN) submits this comment on behalf of our 8000 members in New York, Pennsylvania, New Jersey, and Delaware. DRN is a nonprofit organization working throughout the Delaware River Watershed to defend and restore the Delaware River, its tributaries and habitats since 1988.

DRN submits for your review copies of expert reports that address various impacts of natural gas development and production. These reports address the safety and environmental performance of practices such as hydraulic fracturing that are employed to extract natural gas from deep geologic formations, primarily shale. There currently is a moratorium in place on gas drilling in the Delaware River Watershed, instituted by the Delaware River Basin Commission (DRBC), the agency that manages the water resources of the Basin. The DRBC has issued draft natural gas development regulations and is currently reviewing and considering the 69,800 comments submitted to the agency on the proposed rules.

The attached reports were produced by experts engaged by DRN to review and assess DRBC’s proposed draft gas rules. Key findings that are important for the Subcommittee regarding hydraulic fracturing include:

- Inadequate drilling, cementing and well construction standards, making aquifer contamination unavoidable;

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- Setbacks from homes, public buildings, roads, and public and private water supply wells are minimal and do not provide safe distances;
- DRBC and the States measure setbacks from the well pad, not the horizontal well bore and hydraulic fracture zone (where pollution can occur);
- Open wastewater impoundments are allowed for storage of flowback and/or produced fluids despite DRBC's finding that open waste pits on well sites are too dangerous and require closed tank systems to capture all flowback;
- Spacing of gas well pads and gas well bores from each other is not safe; current regulations allow wells and well pads to be too close to each other, increasing risk of interference between well and/or destabilization of well bores and/or fractures;
- No restriction on the dangerous chemicals that will be used in drilling and hydraulic fracturing ("fracking"); approximately 260 chemicals - and another 40 compounds with secret ingredients that the industry will not disclose - are being used in fracking fluids in Pennsylvania and other states where Marcellus Shale gas is being mined (NYSDEC Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas, and Solution Mining Regulatory Program, 2009). Many of these chemicals are hazardous to humans and other species, many are toxic such as naphthalene, glutaraldehyde, and acrylamide and some are classified as carcinogenic by the federal government such as benzene, formaldehyde, and methanol.
- Public disclosure of all of the ingredients in the chemical formulas used in fracking is not required. Hydraulic fracturing is not subject to the Safe Drinking Water Act, endangering drinking water supplies.
- Proposed wastewater standards do not require the removal of all of the hazardous constituents in gas drilling wastewater, including hazardous hydraulic fracturing ingredients and deep geology pollutants.
- Cuttings from the drilling process and solids that are left from wastewater filtering are not classified as hazardous waste even though they contain hazardous materials (such as naturally occurring radioactive materials, hydrocarbons, hazardous chemical compounds and heavy metals) which will allow them to go to common landfills that are not designed to keep this waste segregated from the environment.

Also, though not directly related to hydraulic fracturing techniques, the following issues are still relevant because the potential impacts are of greater substance due to the chemical constituents of hydraulic fracturing fluids and the flowback fluids from gas well stimulation that are employed:

- Stormwater management inadequately managed, due to federal and state exemptions and lack of best management practices that are effective;
- Stream protection is inadequate – including Special Protection Waters classified streams that should be protected under federal anti-degradation requirements and degraded streams that have established TMDL's or that are water quality limited;
- Floodplain regulations administered by the Federal Emergency Management Agency do not address gas wells or gas well infrastructure so most states allow these activities within the regulated floodplain, which poses serious safety hazards in areas that experience flooding such as the Delaware River Watershed, including the exacerbation of flooding and flood damages;
- Most states fast track approval of gas drilling permits and water withdrawals, with little to no opportunity for public comment and input. Public participation in the decision-making process regarding gas development issues and regulations is restricted severely through inadequate public participation guidelines and the fast tracking of permits for these activities for most of the agencies that regulate the industry, making it harder for agencies to make good decisions;
- Inadequate stream flow protections for waterways that supply water for hydraulic fracturing (on average 5 million gallons per fractured gas well) due to depletive loss and loss of natural flow regime and habitat for dependent species;
- Inadequate groundwater table protections due to depletive losses that adversely impact aquifers and surface water through reduction of healthy base flow;
- The fast pace of gas development has led to short shifting of permit reviews, less oversight and inspection, poor enforcement of existing regulations and more accidents and permit violations. Evidence of this can be found in Pennsylvania where the rush to drill has led to pollution and accidents throughout the Marcellus shale fairway (PADEP records show 2010 violations=2,486, wells drilled, 2010=2,755; violations in 2011 have ballooned to about 11 per day).

Thank you for the opportunity to provide these reports and comments.

Sincerely,

Tracy Carluccio
Deputy Director
Delaware Riverkeeper Network

Attachments:

Tom Daniels, Ph.D., *Review and Comments on the Delaware River Basin Commission's Proposed Natural Gas Regulations of December 9, 2010, 2011.*

Peter M. Demicco, RPG, *Comments on the Proposed Natural Gas Development Regulations, Delaware River Basin Commission, 2011.*

Glenn C. Miller, Ph. D., *Comments to Delaware Riverkeeper Network on the Delaware River Basin Commission's Draft Proposed Natural Gas Development Regulations*, 2011.

Susan Harvey, Harvey Consulting, *Recommendations to Improve the December 9, 2010 Delaware River Basin Commission (DRBC) Proposed Natural Gas Development Regulations*, April 7, 2011.

Ron Bishop, Ph.D., *Management of Waste Fluids from Natural Gas Exploration and Production: Comparison of New York State and Delaware River Basin Commission Regulations*, 2011.

Paul Rubin, *Report for the Delaware River Basin Commission on Natural Gas Development Regulations December 9, 2010, Article 7 of Part III – Basin Regulations*, 2011.

Michele Adams, P.E., LEED AP, *Comments on Delaware River Basin Commission (DRBC) DRAFT Natural Gas Development Regulations*, 2011.

Piotr Parasiewicz, PhD., *Ecological review of the DRBC Draft Natural Gas Development Regulations*, 2011.