

Testimony Of

Donald S. Garvin, Jr.
Legislative Coordinator, West Virginia Environmental Council

Before a U.S. Senate Committee on Energy and Natural Resources
Field Hearing in Charleston, West Virginia
November 14, 2011

MARCELLUS SHALE GAS DEVELOPMENT AND PRODUCTION IN WEST VIRGINIA

Senator Manchin, Congressman Rahall, Congresswoman Capito, and Congressman McKinley:

My name is Don Garvin, and I am the Legislative Coordinator and lead lobbyist for the West Virginia Environmental Council (WVEC). I thank the Committee for the opportunity to testify today at this Field Hearing on behalf of WVEC.

I moved to Buckhannon, West Virginia, in 1982 to manage Braxton Oil and Gas, my father's independent oil and gas production company. We drilled conventional wells, primarily to produce natural gas from relatively shallow geological formations. This was not the "oil patch" of tycoons portrayed in the popular television series, *Dallas*. But it provided my father's family, and several other families, with a comfortable middle-class living. And, yes, we did hydraulically fracture those gas wells.

But Marcellus shale drilling is not my father's "gas patch".

Marcellus shale drilling is gas drilling on steroids. These well sites are gargantuan. Everything about these "unconventional" drilling operations is exponentially leaps and bounds bigger than conventional gas well drilling: they impact more land, they use more water, they produce more liquid and solid waste, and they emit more air pollution.

Marcellus drilling operations are so huge that the impacts are felt far beyond the surface tracts being disturbed. Impacts can occur to public lands, special places, high quality streams, neighboring landowners, local infrastructure, and to quality of rural life.

Of course, the money is also bigger. The Marcellus shale formation is now the second largest field of gas in the world. It is twice the size of the gas fields in Saudi Arabia. Major oil companies are buying up gas resources here. Conventional shallow wells that cost \$300,000.00 to drill have given way to 6 to 8 horizontal wells drilled from one well pad. And each horizontal well costs \$3 million or more to drill.

The result is a boom in gas drilling the likes of which West Virginia has never seen, and it is resulting in what can only be described as "the industrialization of rural West Virginia." The hundreds of large truckloads daily hauling drilling equipment, water, sand and fracturing chemicals on narrow country roads, huge drilling rigs running 24 hours a day, months on end – it all amounts to a major industrial activity. In areas where this drilling is occurring the very nature and character of rural life is changing – perhaps forever.

There can be no dispute that Marcellus shale drilling is bringing economic benefits to the state. At the state level, severance taxes and other revenues are up. And business at the restaurants, gas stations and convenience stores in communities near the activity is booming – just try to get a motel room near by. However, local community leaders and state policy analysts and decision makers are only now beginning to look at the externalized economic costs this activity is bringing to public infrastructure, public health and the environment.

WVEC's Concerns:

This new boom in drilling (and the new technologies associated with it) is still largely unregulated.

Horizontal drilling and hydraulic fracturing cause an exponential increase in surface disturbance, water use and waste disposal, and can pose a serious threat to our land, water and air resources, and public health.

Eliminating, or at the very least minimizing, those threats is the main concern of the West Virginia Environmental Council.

In the United States the responsibility for regulation of the oil and gas industry has largely been delegated to the individual oil and gas producing states. And this new boom of shale gas drilling across the nation, enabled by new technologies in horizontal drilling and high-volume hydraulic fracturing, caught most state regulatory agencies off guard.

West Virginia was no exception. WV Department of Environmental Protection (DEP) Cabinet Secretary Randy Huffman has said publicly that his agency was not prepared for this increase in permit activity and has noted that DEP's Office of Oil and Gas needs more funding, more field inspectors, and additional statutory and regulatory tools to deal with the new technologies. For at least three years that office has been operating with a \$1 million budget deficit and was until recently unable to fill four of the 17 field inspector positions due to lack of funding.

The State Legislative Process:

For the last three years WVEC has worked cooperatively with the DEP as well as the State Legislature in efforts to craft a comprehensive state regulatory framework to regulate Marcellus shale drilling that would protect the environment while allowing the drilling to continue.

It began in 2009 with some minor changes proposed by DEP to Rule 35CSR4, the Oil and Gas Well Rules. At that time the industry lobbyists even opposed requiring drilling pits to be lined with synthetic liners. However, the final rule adopted by the Legislature contained language that basically guaranteed the use of the liners.

In 2010 WVEC supported HB 4513, "establishing requirements for Marcellus gas well operations' use of water resources." If it had passed, the bill would have set additional reporting requirements for water withdrawals from streams, the contents of water used for high-volume "slick water" hydraulic fracturing, and where the waste water was to be disposed. The bill would also have required drillers to have plans for handling water withdrawals and waste disposal prior to getting the permit to drill. One of those plans would have covered maintaining minimum

instream flows when withdrawing water. But the bill died in conference committee on the final night of the session, again due to industry objections.

Also in 2010 WVEC participated with DEP stakeholder meetings as the agency began a programmatic review of its oil and gas regulatory program. Later that year I served on DEP's Marcellus Task Force, along with Dave McMahon with the WV Surface Owner's Rights Organization (WVSORO), Ted Streit with the WV Land and Mineral Owners Association, and eight or nine industry representatives. Basically, the task force was a discussion group used by DEP as a sounding board for developing proposed legislation.

Then in 2011 DEP submitted its proposed Marcellus shale regulatory bill to the Legislature (HB 3042 and SB 424), and the Joint Judiciary Interim Committee submitted its proposed bill, the Hydraulic Fracturing and Horizontal Drilling Gas Act (HB 2878 and SB 258). The Senate passed a pared down version of the DEP bill, SB 424, while the House was continuing to work on the Judiciary Committee bill, HB 2878. Eventually, House committees passed a committee substitute version of SB 424, but the bill was not voted on by the full House. So the bill died.

That brings us to where we are today. After the regular session, Governor Earl Ray Tomblin said publicly that if the two chambers could agree on a Marcellus regulatory bill, he would call the Legislature into Special Session to pass the bill. So, during the June Interim Committee meetings, the Joint Committee on Government and Finance created a Select Committee on Marcellus Shale comprised of five Delegates and five Senators and charged it with attempting to come up with a bill. The Select Committee agreed to begin with the version of SB 424 that was passed by the Senate during the regular session. At the time of this writing, the Select Committee has adopted 27 amendments to the bill, with four amendments pending. It is still not clear whether there is general overall support for the amended bill, and with the holidays upon us, it is looking less and less likely that there will be a Special Session.

The West Virginia Environmental Council has been, and will continue to be, actively involved in the state legislative process. As you might expect, we have developed our own list of "essential elements" that should be contained in an effective state regulatory bill. We have shared this list with both the DEP and the Legislature. I have attached that list at the end of this document.

Federal Regulation:

While the responsibility for regulation of the oil and gas industry has largely been delegated to the states, a broad array of Federal environmental laws provides the blanket for state regulation. However, since the 1980's specific executive administrations, with the support of the U.S. Congress, have granted exemptions to the oil and gas industry from several major environmental laws. The result has been weakened federal laws, a patchwork of differing state laws and regulatory programs, and little oversight by the federal government until recently.

For example, the oil and gas industry enjoys an exemption granted by Congress from the Resource Conservation and Recovery Act (RCRA). This statute gives the EPA the authority to control hazardous wastes from "cradle to grave" including the generation, transportation, treatment, storage, and disposal of hazardous waste (USEPA). Essentially, this exemption precludes all fluids used by industry for oil and gas drilling exemption from being regulated as hazardous wastes. This exemption was granted in the late 1980's.

As a more recent example, in the “Energy Policy Act of 2005” Congress granted the industry numerous adjustments to and exemptions from federal laws. These changes have weakened the previous safeguards against water pollution from oil and gas exploration contained in three of the major pieces of federal environmental law that protect our waters in the United States:

The first of these 2005 changes totally exempted oil and gas field activities from the storm water runoff provisions of the federal Clean Water Act. However, at least one federal court has thrown out this exemption, but the case is still under litigation.

Secondly, the 2005 Energy Policy Act contained three weakening provisions to the federal Safe Drinking Water Act (SDWA): it completely exempted hydraulic fracturing procedures from SDWA regulation; it allowed for the voluntary cessation of the use of diesel fuel in fracking fluid instead of banning it; and it exempted flow back water from regulation if disposed via underground injection wells unless it contained diesel fuel.

Thirdly, the 2005 Energy Policy Act gave the industry an exemption from the environmental assessment requirements of the National Environmental Policy Act (NEPA). The NEPA requires an environmental assessment to be conducted before any major projects on federal public lands are undertaken that could possibly impact the environment and also provides an opportunity for public interaction through a comment process. Instead, the 2005 Energy Policy Act, however, granted various oil and gas industry operations a created a “categorical exclusion” under the Interior and Agricultural Departments. Granting this “categorical exclusion” means that less strict assessments are now required for oil and gas operations on federal lands, reduces the opportunity for public involvement through the NEPA process, and shifts the burden of proof for the need for additional analysis of these projects from the agency to the public.

The West Virginia Environmental Council supports the removal of the exemptions granted under the 2005 Energy Policy Act.

Again, thank you for the opportunity to provide testimony today.

Donald S. Garvin, Jr.
Legislative Coordinator
West Virginia Environmental Council
2206 Washington Street East
Charleston, WV 25311
(304) 395-0078
DSGJr@aol.com

About the West Virginia Environmental Council:

The West Virginia Environmental Council was organized in 1989, and our mission is to facilitate communication and cooperation among citizens in promoting environmental protection in West Virginia, to assist in organizing grass roots groups, to facilitate interaction among established environmental organizations, and to correspond with all appropriate local, state, and federal agencies involved in the management of West Virginia’s environment.

In actuality, we are an “umbrella” organization formed by this state’s individual environmental groups to serve as their lobbying arm. Since the bulk of our work is to lobby state government and regulatory agencies, we have a 501(C)4 non-profit tax status. The majority of our funding comes from our member groups, as well as from contributions from individual concerned citizens. And, yes, we do have bake sales!

Essential Elements of an Effective Marcellus Regulatory Bill

Public Notice of Permit Applications: Every permit application to drill a horizontal well should be officially noticed to the public (via newspaper ads, etc.), and should include a 30-day public comment period (this is in addition to all the appropriate notice provisions to surface owners and others).

Water: Regulation from “Cradle to Grave”

- **Water Withdrawals** – WV should implement a permit system for large volume water withdrawals in order to maintain minimum in-stream flows. This is necessary to protect both aquatic life and downstream users.
- **Water Content** – WV should require an initial listing of chemicals to be used in fracturing a well in the permit application, and a complete listing of the actual chemicals used, and the amounts, should be filed with the completion report and be available to the public.
- **Wastewater Disposal** – The operator should be required to measure and report both the volume of water used to frac a well, and the volume that returns as flow-back water. WV should require the use of a “closed loop” system for large volume fracs. Flow-back water should not be stored in temporary impoundments or pits. Drilling pit wastewater should be disposed of in the same manner as flow-back water (no land application). The operator must maintain an appropriate evidentiary record tracking the disposal of all wastewater. WV should also prohibit the disposal of oil and gas well wastewater in underground mines.

Source Water Protection

- There should be a minimum 150’ buffer zone to distance all oil and gas drilling activities from stream channels and wetlands.
- No horizontal well should be drilled within 2,500 feet of a surface water source that serves a public water system.
- All fresh water and flowback water impoundments, and all drilling pits should be constructed with a dual liner system with a leak detection system installed between the two liners.
- WV should end the practice of burying drilling pits on site. All drilling pit liners and drill cuttings should be removed and disposed of at licensed hazardous waste landfills.
- The operator should test all flow-back water and drill cuttings for the presence of naturally occurring radioactive materials (NORMs).
- All drill site reclamation, including pits, impoundments, roads and pipelines, must be timely and prevent the erosion and sedimentation of fresh water streams and wetlands.

Groundwater Protection

- No horizontal well should be drilled within 1,000 feet from any existing building or existing water well without the written consent of the owner.
- No horizontal well should be drilled within 1,000 feet of a groundwater source that serves a public water system.
- The operator should be required to perform a “pre-drilling” test of all water wells and freshwater springs within 5,500 feet of the bore hole, and provide copies of the test results to the landowner. These tests must be conducted by a certified lab, and include testing for chemicals or chemical compounds known to be commonly used for hydraulic fracturing.

- The operator should be automatically required to replace damaged or lost groundwater supplies located within 2,500 feet of the well.
- An oil and gas inspector should be present during each phase of cementing well casings.

Permit Fees and Well Bonds: The increase in drilling activity has left the agency in the position of lacking both the funds and the staff to adequately review, evaluate and issue permits, observe field activities and perform compliance monitoring. The permit fee for drilling a horizontal well should be set at a minimum of \$10,000 per well. In addition, a \$25,000 individual bond should be required for each horizontal well (no “blanket bonds”). Additional fees should be established for modifying a well work permit, reclamation, and annual inspections.

Inspectors: The Oil and Gas Inspectors’ Examining Board, which has been historically dominated by the regulated industry, should be eliminated. In its place, the agency should be given the authority to hire inspectors under the civil service system, with an appropriate training program and a six-month probationary period.

Additional Protections for Surface Owners:

- Pre-permit notice for the surface owner. The notice should include copies of applicable statutes and rules and an offer to meet with the surface owner before coming onto the land.
- Pre-permit incentives to encourage the operator to work with the surface owner on planning where and how well sites and access roads will be built and reclaimed.
- Improvements to damage compensation procedures and standards.

Seismic Exploration: WV needs a statute and rules regulating geophysical seismic testing.

01/26/11, WVEC and WVSORO

Some Useful Links:

WV Surface Owners’ Rights Organization (split estate issues):
<http://www.wvsoro.org/>

Wetzel County Action Group (air quality and other drilling issues):
<http://www.wcag-wv.org/Default.htm>

West Virginia Rivers Coalition (a primer on Marcellus in West Virginia):
<http://www.wvrivers.org/articles/Marcellus%20Report%202010.pdf>