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INDEPENDENT REGULATORY REVIEW COMMISSION

From: Ludwig Family [ludwig87@comcast.net]
Sent: Friday, December 18, 2009 5:04 AM
To: EP, RegComments
Subject: Drilling for natural gas

My name is Heather and I am a member of a local environmental group in the Wissahickon Valley watershed called Wissahickon Growing Greener. I use gas to heat my home and to cook my family meals. I drink the water from my faucet and I give my children a bath before they go to sleep. Over the past few weeks, I have been educated on the horrors caused by the process of Hydraulic Fracturing for natural gas not just in my state, but all over the country.

Not long ago, I learned of the Halliburton Loophole in the 2005 Energy Bill and am appalled that this loophole exempts oil and natural gas industries from the Clean Water Act, the Clean Air Act, the Safe Drinking Water Act, the Superfund Law and others. I recently learned of the plans to drill for natural gas in the Marcellus Shale in Pennsylvania and have become aware of how these plans could directly affect the health of the people in my community as well as millions of other lives across Pennsylvania.

I have become informed about the method of hydraulic fracturing. This process blasts water and tons of sand and chemicals some 8,000 feet into the ground to fracture the Marcellus Shale and releases natural gas. There are over 200 chemicals used in this process – chemicals that are endocrine disruptors, carcinogens, neurotoxins, and many other toxic additives present in the fracturing liquid. The companies doing the drilling are not required to disclose the names of all of the chemicals, instead, they list them as "Proprietary Component." 1 to 5 million gallons of water is used each time a well is drilled. And that same 1 to 5 million gallons of water is used each time they frack again, up to 18 times. If there are ONLY 1600 wells in PA, that's 1600 wells x 1 million gallons of water x 18 times, that's almost 29 BILLION gallons of water infused with this toxic fracking liquid. And this estimate is on the low end.

One of the most bothersome contaminants in the wastewater is a gritty substance called Total Dissolved Solids, or TDS, a mixture of salt and other minerals that lie deep underground. Drilling wastewater contains so much TDS that it can be five times as salty as sea water. Gas drilling companies currently dispose of their wastewater in Pennsylvania's municipal sewage plants, which then discharge it into rivers and streams. In an October 2008 Press Release, the U.S. Environmental Protection Agency warns against this form of treatment, because the plants aren't equipped to remove TDS or any of the chemicals the water may contain. Of even more concern, TDS can disrupt the plants' treatment of ordinary sewage, including human waste.

Where are they going to get this water for the fracking? It will be taken out of our precious, fresh-water resources. We are fortunate to still have fresh water here, but billions and billions of gallons of it will be taken for the fracturing process.

Where is all this fracking liquid wastewater going to go? It will be stored in containers or lined pits and then trucked away. Will these containers leak? Will the liners leak? Will the chemicals evaporate into the air and blow my direction? Who's going to make sure they won't, and if they do, who's going to make sure the chemicals are cleaned? Are the municipal sewage plants to continue taking drilling wastewater, even though none of them can remove TDS. Will it be dumped in the Delaware River to be diluted to a safe level? If we don't know what is in the fracturing liquid, how can we maintain the dilution will be safe? We can't monitor for the chemicals if we can't identify them or their concentrations. This wastewater is going to get into well water, aquifers, and streams and contaminate the water we bathe our children in, the water we put in their glasses to drink. We know this is going to happen- it has already happened at other locations across the US and here in PA.

As recently as November, DEP Officials reportedly fined Cabot Oil & Gas Corp because its natural-gas drilling operations polluted 13 water wells in Susquehanna County, PA. Once the frackwater migrates from the surface to the water table, there is no easy way to prevent the spread of contaminants. George Zimmermann in Washington County, PA says Atlas

Energy Inc. ruined his land with toxic chemicals used in or released there by hydraulic fracturing. Zimmermann's suit, filed in September in the Washington County Court of Common Pleas, follows claims by residents in many gas-drilling areas of the United States that fracking pollutes private water wells with toxic chemicals and threatens widespread contamination of aquifers from which many households draw drinking water. Soil samples detected mercury and selenium above official EPA limits, as well as ethylbenzene, a chemical used in drilling, and trichloroethene, a naturally occurring but toxic chemical that can be brought to the surface by gas drilling. Rural residents who live near gas drilling say their water has become discolored, foul-smelling, or even flammable because methane from disturbed gas deposits has migrated into their water wells.

DEP is proposing changes to Chapter 95 of " Permitting Strategy for High Total Dissolved Solids (TDS) WastewaterDischarges" (April 11, 2009), which would limit the TDS levels in wastewater discharges, because it determined that some state waterways don't have the ability to absorb increased levels of TDS. According to a Penn State report, most of the water used to prepare gas wells is between 800 milligrams per liter TDS and 300,000 milligrams per liter TDS. The industry estimates the amount of such high-TDS wastewater needing disposal in Pennsylvania will increase from about 9 million gallons per day in 2009 to nearly 20 million gallons per day by 2011, the report said.

We need to STOP, think and evaluate the situation before we head down a road where we can't turn back. Stop giving out these permits to drill until we know what chemicals we are dealing with, their concentrations and how this chemically-laden wastewater will be dealt with responsibly. We have enough tumors, enough respiratory issues, enough cancer. We need a plan. A well thought-out plan. One that learns from the history of water contamination and health risks in Fort Worth, Texas and Rifle, Colorado. One that says clean "water" does not ignite from methane. I am not asking that we don't drill, but I am asking for a safer method of production and disposal of wastewater. Thank you DEP, for trying to change Chapter 95 and require high-TDS discharges to be diluted to at least 500 mg/L for TDS and 250 mg/L each for Sulfates and Chlorides in the Marcellus wastewater, but it's not enough. Other contaminants are in the Marcellus Shale gas drilling water that we know about, like arsenic and benzene. What about all the others that we don't know about because of the Halliburton loophole and the lack of disclosure from these drillers? What about the radioactive materials? What about the air pollution? Think about the 800 gallons of diesel fuel needed to run each well every day. What about the noise pollution? The destruction of forested areas and the increased erosion? What about the inability of fish to survive such high levels of TDS in their water? This is not someone else's problem. This is my problem. Our problem. Let's find ways to reduce the amount of natural gas we use. Let's make our homes and businesses more energy efficient and supplement energy use with solar or wind power.

By your own account, the DEP's Bureau of Oil and Gas Management regulates the safe exploration, development and recovery of Marcellus Shale natural gas reservoirs in a manner that will protect the commonwealth's natural resources and the environment. Your plan will be acceptable when you are able to reach for a nice tall glass, fill it up with the treated wastewater products, and then let your children drink it.

Thank you for listening.