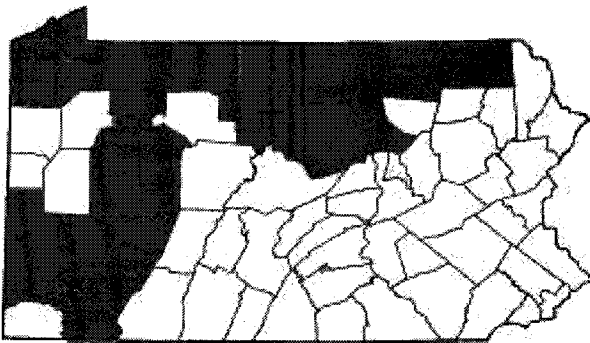


**Comments on the Proposed Rulemaking
25 PA Chapter 95, Wastewater Treatment Requirements
that will govern discharges of high
Total Dissolved Solids (TDS), chlorides and sulfates**

February 12, 2010 --New York decided to slow the drilling in its portion of the Marcellus Shale until the effects could be assessed. Regulations for well construction and treatment solutions for the wastewater are being discussed in New York before permits are issued for drilling.

In contrast Pennsylvania's leaders decided that health, safety, and property impacts were not as important as the economic benefit of the "Marcellus Shale play." Consequently the Commonwealth has become a hotbed for natural gas exploration and development. Pennsylvania is facing decades of drilling and thousands of wells. Last year DEP opted to "fast track" drilling permits and reduce local oversight. Problems have arisen.

Drilling has already contaminated rural drinking water supplies in several counties. There is more than methane in your drinking water after the failure of a Marcellus well under pressure.



Counties involved in cases of stray gas migration (2001-2009)
Source: DEP, October 2009

The Marcellus "rush" in southwestern Pennsylvania and West Virginia led to greater volumes of drilling wastewater being delivered to sewage treatment plants on the Monongahela River and its tributaries. Gas well drilling wastewater and mine drainage contain high concentrations of Total Dissolved Solids (TDS).

Elevated TDS levels affecting the taste and odor of the water prompted a drinking water advisory for over 300,000 Pittsburgh residents. DEP told the customers of the public water supplies concerned with the quality of water to use bottled water for cooking and drinking.

With only ten months left in his administration, Gov. Rendell has announced that natural gas exploration rules will be tightened. Two weeks later on a PCN television call-in, Gov. Rendell said there are just a few minerals in the Marcellus wastewater, hinting that it was rather innocuous.

When the water flows back out of a Marcellus borehole in Pennsylvania, it contains more than a few minerals. Chemicals added to facilitate gas production, plus natural toxins like benzene, a cancer-causing agent are present. The minerals in the wastewater can create a liquid five times as salty as seawater.

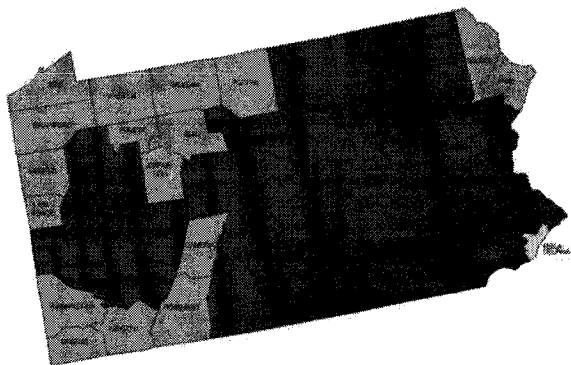
Up until now DEP has relied on the assimilation capacity of our Pennsylvania streams to deal with the Marcellus wastewater, but many of Pennsylvania's waterways are at a tipping point. As a result DEP is seeking rule changes regarding wastewater treatment requirements that will govern the discharges of high Total Dissolved Solids (TDS).

Total Dissolved Solids (TDS) typically pass through most wastewater plants. DEP and public water suppliers have said the high TDS levels are not a health concern. Indicating that the water is safe without knowing the chemical composition of the dissolved solids is deceitful.

We contend that DEP does not know what chemicals, metals and possibly radioactive elements are in the waste water that flows back out of the Marcellus wells in Pennsylvania and eventually discharged into the state's waterways.

In June 2009 a DEP spokesman said the department was conducting a chemical analysis of the wastewater, a study that should be done by the first of this year. Where we can find this study? In October 2009 the same spokesman stated that clean water requirements require you to remove those chemicals and did not know whether there is any testing for toxic chemicals post-treatment.

Reverse osmosis is the only filtration system that removes EVERYTHING including trace pharmaceuticals and pesticides. CONSOL Energy is constructing a reverse osmosis plant at its Buchanan No. 1 mine in Virginia. The salt-removal system treats nearly 100,000 gallons per hour at peak capacity. It will be in operation this year. Why doesn't Pennsylvania require the same for our waterways? Environmental regulatory requirements have been a driver of technology. This could be one of those moments.



Red zone has the highest potential radon screening levels
Orange zone has a moderate potential
Source: EPA Map of Radon Zones, February 2010

In October 1991, managers of a Pennsylvania landfill were concerned about contamination from illegally dumped radiopharmaceuticals. They increased the sensitivity of the radiation detector used to scan incoming wastes. The first shipment to set off the alarm contained nothing but concentrated brine sludge --produced by oil and gas drilling. The sludge contained significant levels of two radium isotopes.

Marcellus gas wells can bring radioactive material to the surface in the cuttings, flow back fluid and production brine. Radium-226 is the radionuclide of greatest concern from the Marcellus. It is fairly soluble in saline water and has a long radioactive half life - about 1,600 years. Radon gas is produced by the decay of Radium-226.

New York's DEC tested 12 vertical wells drilled in the Marcellus Shale. The wastewater at 10 of them contained a radioactive derivative of uranium at levels hundreds of times as high as the federal limit for people to drink safely. We have seen no evidence that Pennsylvania's DEP is taking this issue seriously.

Coal, natural gas and power companies say proposed rules restricting pollutants in industrial wastewater pumped into rivers and streams will hurt business and endanger jobs. A spokesman for PA Marcellus Shale Committee says the industry opposes the TDS regulations recently proposed by DEP. He says a better approach would be to take a watershed view of the TDS problem.

The assimilative capacity of our streams should not be considered an appropriate treatment for this drilling waste. It is the responsibility of the industry to clean their wastewater. With only ten months left in this administration, we hope DEP will not yield to these pressures. Weak standards will only encourage wastewater from New York and other states. Pennsylvania's failure to regulate will cost taxpayers more for future cleanup and remediation.

We believe DEP's proposed effluent standards (500 mg/L for TDS, 250 mg/L for sulfates and 250 mg/L for chlorides) is the first step to improving water quality in Pennsylvania. ALL facilities that discharge TDS should be covered by the standard. These standards should go into effect as soon as possible.

Thank you,

Elaine Futej - Secretary
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