

Talking Points on Marcellus Shale Drill Cuttings in NY Landfills

By Rachel Treichler, Hammondsport, prepared for comments during Public Comment Period, Steuben County Legislature Meeting, Monday, Aug. 27, 10:00 am, Steuben County Office Building, 2nd Fl., 3 East Pulteney Sq., Bath

1. The Marcellus Shale is a radioactive formation and Appendix 13 of the DEC's Revised DSGEIS shows that production brine from wells drilled into the Marcellus formation can be extremely radioactive, with gross alpha as high as 123,000 +/- 23,480 pCi/L.
2. The gas industry has a huge problem in Pennsylvania and New York getting rid of drilling flowback because the bedrock geology is too fractured to make underground disposal wells a viable option.
3. It is extremely costly to build treatment plants that can adequately treat the radioactivity and high salt levels of flowback from the Marcellus shale.
4. The exemptions from Federal and NY hazardous waste laws for wastes from petroleum production allow toxic gas drilling wastes, including production flowback, to be categorized as industrial waste and placed in solid waste landfills as long as they are more than 20% solid. See *Fracking's future dependent on hazardous waste loophole—Anti-fracking strategy in NY: Ban or death by regulation?* Tom Wilbur's Blog, August 22, 2012, <http://tomwilber.blogspot.com/>
5. The recently announced radiation monitoring protocols announced for the Steuben County landfill by Steuben DPW are woefully inadequate to detect whether solidified flowback is being placed in the landfill.
 - a. The detectors use detect gamma radiation and not alpha and beta, the nucleotides that predominate in radium.
 - b. The sensitivity tests contained in the technical manual for the detectors are tests for uncontained sources passing through the detectors at a speed of 3 miles per hour. The materials coming into the landfill will be contained in heavy metal truck bodies. If trucks drive through the detectors at speeds greater than 3 miles an hour, the detectors will not have time to react to radiation in the load. In materials presented in the Chemung landfill proceeding, Dr. Marvin Resnikoff showed that heavy metal truck bodies dramatically reduce the ability of the detectors to detect radioactivity in sources contained within the truck body.
 - c. The protocols provide for additional tests of loads that trigger the detectors, but those additional tests are not described, so it is not possible to evaluate them.
6. Pyrite is abundant in the Marcellus Shale as the USGS points out in its comments on the DSGEIS. Exposure of pyrite to water and air produces an acidic, metals-rich discharge referred to as AMD (Acid Mine Discharge) and causes expansion of the pyrite. If large amounts of Marcellus drill cuttings are placed in the landfill and exposed to water, they will expand over time, causing breaks in the cover, damaging the integrity of the landfill, and leaching AMD.
7. The leachate treatment plant in the Steuben County landfill is not equipped to handle AMD, high salt levels or the radioactivity associated with drilling wastes from the Marcellus shale. The plant discharges into the Bath municipal sewage treatment plant, which is also not equipped to treat these materials. The Bath MSW discharges into the Cohocton River, which is closely connected to the aquifer that is the primary drinking water source for thousands of people.
8. We urge the legislature to instruct DPW to step back, halt the acceptance of drill cuttings and leachate from other landfills accepting drill cuttings and work with the public to address these issues.

For more information about radioactivity in the Marcellus Shale, visit <http://treichlerlawoffice.com/radiation/radlinks.html>