

October 14, 2020

Sent by Email

House Democratic Policy Committee
Attn: Rep. Mike Sturla, Policy Committee Chair
Rep. Sara Innamorato, Bill Sponsor

Dear Representatives Sturla and Innamorato,

We are writing on behalf of the members of our organization, Protect PT (Penn-Trafford). Protect PT is a nonprofit citizens group dedicated to ensuring that the safety, security, and quality of life of community members are protected from the effects of unconventional natural gas development in Westmoreland and Allegheny Counties.

The health and safety of Pennsylvanians is at risk due to a massive 1,500% increase in the volume of toxic, potentially radioactive waste generated by oil and gas operations between 2003 and 2018, and a loophole that exempts this dangerous waste from rules that require making treatment and disposal safer for Pennsylvanians. Radioactive oil and gas waste is dangerous at any level. More than 1,100 sites process fracking waste in multiple states each year at facilities near homes or schools. Most of this waste is also transported on public roads. Drill cuttings from Marcellus shale are often enriched with radioactive materials, including uranium and radium.¹

As shale drilling activity expands, radiation alarms are routinely triggered at POTWs and other wastewater processing sites. In Pittsburgh from 2008-2012, radiation detectors alarming tripled from 423 to 1325. According to the USGS, the average radium content in Marcellus shale wastewater samples was more than double the content found in wastewater from other gas-producing formations in 2011.²

For example, in 2019, the Washington County District Attorney and Westmoreland County District Attorney obtained an injunction against the Municipal Authority of Belle Vernon and the Westmoreland Sanitary Landfill because the landfill's leachate was found to be toxic and radioactive. The municipal authority had been accepting

WSL's radioactive leachate through piping. According to the National Pollutant Discharge Elimination System (NPDES) permit, only 50,000 gallons of leachate may be treated per day. WSL was piping 100,000 to 300,000 gallons of leachate per day. This overwhelmed the municipal authority's capacity to treat the wastewater and toxic leachate was dumped into the Monongahela River.³

In a review of the PA DEP's TENORM report, the report author states, "As the number of wells that have been drilled into Marcellus shale increase, [Total Dissolved Solids] concentrations have risen in the Monongahela River, the correlation clearly showing a trend that indicates that gas companies may have been dumping wastewater into surface waters".²

Furthermore, the Westmoreland Sanitary Landfill (WSL) entered into a Consent Order Agreement with the PA DEP in February 2020 after it was discovered that they were violating their Waste Permit by trucking their leachate to the Altoona Water Authority-Westerly Wastewater Treatment Facility, Eastern Ohio Regional Wastewater Authority, City of Alliance Municipal Sanitary Authority, and Seneca Landfill, Inc. The trucking of toxic leachate exponentially increases the harms upon communities as the liquid is spilled onto roads. It also increases the exposure of the truck drivers to the radioactive waste they are transporting. For example it takes two and a half hours to drive from WSL to the City of Alliance Municipal Sanitary Authority.

In June 2020, WSL submitted a plan for approval to evaporate 45,000 gallons of leachate per day. If this evaporator facility is built the toxicity and amount of radioactivity of the reduced volume produced daily, will be thousands fold higher (potentially tens of millions of pCi of radioactivity). The current permit only requires the landfill to monitor the emissions, not toxicity or radioactivity.

Evaporating toxic leachate from fracking waste in any landfill site is concerning for a myriad of reasons. Several of the toxins found in leachate from shale gas drilling waste include Arsenic, Selenium, Strontium, and Volatile Organic Compounds (VOCs) such as Benzene, Toluene, and Xylene.⁴ These compounds are known carcinogens and cause a range of other health impacts, including heart and respiratory impacts and other severe conditions. Pumping these toxins into the air puts residents at risk, particularly vulnerable populations like pregnant women, children, the elderly, and people with existing medical conditions.

The leachate is fracking waste is known to contain different forms of radioactivity, only one of which can be easily measured. Simple measures, such as Geiger counter tallies gamma radiation from Uranium (U), greatly underestimate the total radiation hazard. Radioactivity from radium is especially high in Marcellus deposits and common in gas industry waste.

Radium changes to the well-known hazard, Radon (Rn) gas, at different rates, called decay half-lives. The rates differ for each variety, or numbered isotope, of radium. Ra-224 half-life is 3.5 days, Ra-226 decays in 1600 years and Ra-228 converts in 6.7 years.⁵

Radon gas exposure increases cancer risk, especially lung cancer and is in fact the second leading cause of lung cancer in the United States. Yet with this body of evidence, fracking waste is not classified as hazardous or toxic waste.

“At the federal level, radioactive oil and gas waste is exempt from nearly all the regulatory processes the general public might expect would govern it. Neither the Atomic Energy Act of 1954 nor the Low-Level Radioactive Waste Policy Act covers NORM. The Nuclear Regulatory Commission has no authority over radioactive oil and gas waste.”⁶

We are respectfully requesting that the lawmakers in Pennsylvania close the loophole on oil and gas waste in order to keep Pennsylvania residents safe. Every day, municipal landfills continue to accept more toxic fracking waste forever contaminating the landfill with radioactive and toxic material. Municipal landfills are not equipped to handle toxic waste and their attempts at handling this waste have failed. Please take action now to address this critical situation to prevent further harms to Pennsylvania residents.

Sincerely,



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Executive Director
Protect PT
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 5. Environmental Protection Agency. *EPA Facts about Radium*.
semspub.epa.gov/work/11/176334.pdf.
 6. Brown, Valeria J. "Radionuclides in Fracking Wastewater: Managing a ToxicBlend." *Environmental Health Perspectives*, vol. 122, no. 2, 2014, doi:10.1289/ehp.122-a50.