

May 24, 2021

The Honorable Jason Stephens, Chair
Ohio House Energy and Natural Resources
Committee

Via Email

Re: Opposition testimony against HB 282

Chairman Stephens and Honorable Committee Members:

This testimony is submitted in opposition to HB 282, which would amend ORC 1509.228 to “establish conditions and requirements for the sale of brine from oil or gas operations as a commodity and to exempt that commodity from requirements otherwise applicable to brine.”

I am writing to ask this committee not to pass this bill out of committee for consideration by the full house. Here are just a few reasons why HB 282 would be dangerous for Ohioans.

- Brine is not benign salt water. We now have solid evidence that this oil and gas industry waste can contain hundreds of industrial chemicals, heavy metals, and radioactive waste. Thanks to trade secrets and weak Ohio and federal regulations, most are not subject to government regulation or health standards, although most have known health impacts.ⁱ According to the US EPAⁱⁱ chronic exposure to high levels of radium can result in an increased incidence of bone, liver and breast cancer. Ohio shales are known for higher uranium levels than Marcellus shales.
- This bill allows for 20,000 pCi/L of Radium 226 and 2,500 pCi/L of Radium 228 in any sample of the commodity. The EPA only allows 5 pCi/L in our drinking water standards, and the OAC 3701:1-38-12 allows 60 pCi/L Radium 226 and 60 pCi/L Radium 228 for release into the environment. Not only is this in direct opposition of state and federal laws, but it is also inconceivable that any rational person would consider 20,000 pCi/L of Radium 226 and 2,500 pCi/L of Radium 228 acceptable. It is not!
- Once this “brine” dries, it becomes dust that is bound with positively charged heavy metals and residual hydrocarbons. Any disturbance of the roadway will cause the contaminated dust and soil to move into our waterways and become air borne. Once air borne, the dust will come into contact with skin, be breathed in or contaminate vegetation in our gardens and feed lots. Radium-226 has a half-life of 1,600 years. Do you want to ingest it daily as a result of these applications?
- Unlike other states, Ohio does not track illnesses attributed to oil and gas exposures. Therefore an entire industry escapes the liability and responsibility for the public health and social costs of its toxic waste distribution.

- The treatment methods to be used on the brine are not specified in this bill and will be ordered on a case-by-case basis. A section Chief at ODNR will have **unchecked** discretion to decide how much chemical and radioactive contamination to allow to be sprayed on our public roadways and highways. This bill even restricts government regulation of the very activities it enables, restricting regulation to only very limited testing and monitoring (4 tests per year) of limited parameters. The provision that “the chief shall not adopt any rules, policies or procedures establishing or imposing additional requirements applicable to commodities that have met the demonstration requirement of division (B) of this section,” the law makes it legally **impossible** to set higher standards. It is known that the chemistry and radiation of individual wells can vary tremendously. The companies selling this commodity know that there is nearly zero chance that extreme radiation or chemical toxicity will be caught.
- Section 1 (B) (1) states a permit applicant must provide:
 - (a) “Documentation that the department of transportation has approved the commodity for deicing or snow control;” *When did the department of transportation become the agency responsible for determining what product(s) are safe for human health?*
 - (b) Documentation that the commodity, with or without a corrosion inhibitor, is listed on the most recent Pacific northwest snowfighters qualified products list. *The Pacific northwest snow fighters are not health experts. This is not logical or reasonable when assessing the impact of a product on human health.*
 - (c) Documentation from a private certification entity approved by the department of transportation. *What type of certification? What would they be certifying? Again – when did the dept. of transportation become the agency responsible for determining what product(s) are safe for human health?*
- This bill does not provide any standards for monitoring the removal of the heavy metals, hydrocarbons and radioactive elements found in “brine.” Even IF treatment was technically viable, it would not be economical. Can you imagine the cost to do such remediation? Imagine the stream of wastes that would have to be safely disposed. Calcium chloride or sugar beet juice have far less environmental impact.

A recent Duke University study shows a buildup of radioactive materials at the bottom of three western PA waterways from *treated* conventional oil and gas wastes. The study author, Dr. Avner Vengosh, states “**despite the fact that conventional oil and gas wastewater is treated to reduce its radium content, we still found high levels of radioactive build up in the stream sediments we sampled. Radium is attached to these sediments, and over time event a small amount of radium being discharged into a stream accumulates to generate high radioactivity in the stream sediments. While restricting the disposal of fracking fluids to the environment was important, it’s not enough.**”ⁱⁱⁱ

- Won't this bill violate the federal Clean Water Act, the Safe Drinking Water Act and the imminent endangerment provisions of the federal Resource Recovery and Conservation Act? No member of the Energy and Natural Resources Committee can claim ignorance of the fact that this bill will create an intentional vector for damage to public health, food production, and the environment.

Please protect Ohioans from further toxic exposures. Stop this dangerous bill.

Sincerely,

Lori Babbey

ⁱ <https://endocrinedisruption.org/assets/media/documents/Multistate%20summary%208-3-17.pdf>

ⁱⁱ <https://www.epa.gov/sites/production/files/2016-09/documents/radionuclides.pdf>

ⁱⁱⁱ <https://phys.org/news/2018-01-radioactivity-oil-gas-wastewater-persists.html> The article quotes another author of the study, Nancy Lauer "Our analysis confirms that this accumulation of radioactivity is derived from the disposal of conventional oil and gas wastewater after 2011, when authorities limited the disposal of unconventional oil and gas wastewater. The radionuclide ratios we measured in the sediments and the rates of decay and growth of radioactive elements in the impacted sediments allowed us to essentially age-date the contamination to after 2011."