

November 15, 2022

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Dear Governor DeWine; Directors Mertz, Stevenson, and Vanderhoff; Senators Huffman and Schaeffer; and Representatives Cupp, Stephens, and Lightbody:

We are writing to demand a ban of the use of brine from oil and gas extraction operations (O&G brine) as a road deicer and dust suppressant. [House Bill 579](#), *Prohibit road surface application - brine from oil and gas wells*, would accomplish this. O&G brine has been sprayed for decades on Ohio's roads despite all its known toxic and radioactive components. It has long been known that O&G brine contains heavy metals including Cadmium, Arsenic, and Lead. In 1986, it was discovered through testing by the Ohio Department of Natural Resources (ODNR) that O&G brine contains high concentrations of benzene. In 2017-2019, [tests on O&G brine from 151 wells \(tests summary\)](#) conducted by ODNR confirmed O&G brine also contains high levels of radium 226 and 228.

In 1985, Ohio legalized O&G brine spreading. However, in 1986, after it was discovered that O&G brine contains high levels of benzene, the Ohio Department of Health (ODH), the Ohio Environmental Protection Agency (OHEPA), and ODNR lobbied to ban this practice, but no ban was enacted. Since that time, millions of barrels of this toxic, radioactive cocktail, called "brine", have been deposited onto Ohio roads where it can run off and impact many water sources and watersheds in the process.

It has been a colossal failure of elected public officials and state agencies that have allowed this dangerous practice to continue for the past 36 years. The preeminent responsibility of these agencies and elected officials is supposed to be protecting the public health, safety, and environment. Why the silence from ODNR, ODH, and the OHEPA since then given that we NOW KNOW that O&G brine is even more hazardous due to its high radioactivity?

In addition, Ohio has a law, [ORC § 2927.24](#), enacted in 2002, shortly after the 9/11 attacks, that makes it a felony to "knowingly leave in any public place, or knowingly expose one or more persons to any hazardous chemical ... or radioactive substance with the intent to ... create a risk of ... serious physical harm to any person." Since many elected officials and state agencies have long known about the toxic and radioactive content of oil well brine and its risks but have allowed the public to be exposed to it anyway, aren't they violating this law?

Radium-226 (Ra-226) and Radium-228 (Ra-228) are particularly dangerous. Radium is very mobile in water and is misidentified by our bodies as calcium where it is deposited in our bones and teeth. Radium also binds well to clay soils which means once O&G brine has dried on roads, that dust can become a carrier for radium to enter the lungs. Once ingested into our bodies, radium bombards and mutates cells into cancers.

Incredulously, the legislature has introduced bills (most recently, [House Bill 282](#) and [Senate Bill 171](#)) that would commodify “processed” brine and authorize astonishingly high concentrations of 20,000 picocuries/liter for Ra-226 and 2,500 picocuries/liter for Ra-228. Since Ra-226 has such a long half-life, at that concentration it would take more than 10,000 years for it to decay to a safe level. In addition, these bills would expose the public even more to radiation by allowing this “processed” brine to be used in portable restrooms.

Under these bills, the public - with no knowledge of the toxic and radioactive content - could purchase this commodified brine and take it home to spread it on driveways and sidewalks, thereby endangering their families and pets. So, instead of working to make Ohio safer, the actions of state legislators, and the silence of state agencies and the governor, have created conditions that jeopardize the health, safety, and environment of current Ohioans and many future generations. **This must be stopped now as 36 years is far too long.**

Just recently, a study from the Bureau of Environmental Health and Radiation Protection of ODH published a modeling study entitled, [Radiation Dose of Residential Brine Application](#), on 9/30/2022. The study was requested by ODNR using the radiation concentrations authorized by HB 282 and SB 171 for a commercially available de-icing product from O&G brine. The major conclusion of the study states, “Due to the increased levels of human exposure to radiation, use of products derived from oil and gas production brine is not recommended.” Therefore, it is time for these state agencies (ODH, ODNR, and OHEPA) to once again - after 36 years - unequivocally call for the ban of all O&G brine spreading in Ohio and for legislators to make it happen.

And so, the undersigned organizations of Ohio demand that you use your power and voice to enact a ban on the dangerous use of O&G brine as a deicer and dust suppressant in Ohio.

Thank you.

Ohio Community Rights Network
Columbus Community Bill of Rights
NEOGAP (Network for Oil and Gas Accountability and Protection)
FreshWater Accountability Project
Radioactive Waste Alert
Between the Waters
Kent State Future Environmental Professionals Club
Ashtabula County NAACP
Fractracker
Sustainable Medina County
UU Justice Ohio
Williams County Alliance
CROW (Citizens for Rights of the Ohio River Watershed)
Ohio Peace Council

Committee for Youngstown Community Bill of Rights
Frackfree Mahoning Valley
Guardians of Mill Creek Park
Sustainable Youngstown
FaCT (Faith Communities Together for a Sustainable Future)
West Shore FaCT
Northeast Ohio Black Health Coalition
Cleveland Lead Safe Network
Carroll Concerned Citizens
Cuyahoga County Progressive Caucus
Concerned Citizens of Lake Twp./ Uniontown IEL Superfund Site
Yellow Creek Foundation
SPAN Ohio
OSU Sierra Club Coalition

Reference List:

[“Benzene in Brine Raises New Toxicity Questions”](#), The Columbus Dispatch (OH), April 17, 1986

[“State Agencies to Push for Ban Against Oil-Well”](#), Akron Beacon Journal (OH), April 17, 1986

[“Brine and Ground Water”](#), The Columbus Dispatch (OH), April 28, 1986