

February 15, 2022

TESTIMONY OPPOSING OHIO HOUSE BILL 434

Chair Stephens, Vice Chair Stewart, Ranking Member Weinstein and members of the Energy and Natural Resources Committee,

Today I would like to talk about two things, the dangers of radioactivity and the secrecy of the activities under the proposed Ohio Nuclear Development Authority.

I'd like to start by saying that I am not a nuclear engineer or a nuclear physicist. But I am a scientist. I am a pharmacist by profession. My background is in the biological sciences rather than the physical sciences. But I have studied a bit of physics. As a health professional, I understand the effects of ionizing radiation on the human body and living cells, and it is not pretty.

Radioactivity is the gift that keeps on giving. Everything it touches becomes radioactive. A radioactive disintegration is not a passive thing, or anything like normal activities in living cells. It's an extremely energetic explosion if you will. Particles that are emitted in these explosions damage tissues. Gamma rays are far more energetic and much more damaging than X-rays. Beta particles are tiny and fast moving. Neutrons are another of these subatomic particles. Alpha particles are bounce off skin, but when ingested or inhaled they imbed themselves in the body and continue to irradiate for years.

Radioactivity is fundamentally incompatible with life. We don't want a Nuclear Development Authority that first spreads radioactivity around and later creates more. That is why uranium should be left in the ground where it is farther away from contact. Ohio's bedrock has a fair amount of radium and uranium. Uranium decays into radium and radium decays into radon gas. We all are aware of the dangers that radon can pose when we dig basements.

The nuclear industry tries to hide these dangers from the public, giving reassurances. Our public agencies set standards that are arbitrary because no amount of radioactivity is safe, not even normal background. The nuclear industry then hints at comparisons like an X-ray or an airplane ride or eating a banana. I hope that no one in this room will use those false comparisons of a moment in time vs. radioactive particles inside the body that continue to irradiate. Radioactive particles imbed themselves in bone and in certain tissues and they stay there. That is why leukemia, heart damage, and blood pressure issues are particularly common in people exposed to radioactivity. Reproductive tissues and cells that are dividing fast are particularly susceptible to radioactivity, causing breast, uterine and testicular cancers and birth defects.

Bananas contain a lot of potassium, and all potassium has some radioactivity. But the body maintains a set level of potassium and excretes any excess, so the body's overall potassium level does not increase as more bananas are ingested.

We learn about half-lives of radioactive elements, such as plutonium, which is 24,000 years. After that time, half of plutonium will be gone, decayed. But where did it go? Besides giving off subatomic particles and gamma rays, elements decay into other radioactive elements. And these

new elements have half-lives of their own – sometimes long and sometimes short. Short half-lives cause more immediate damage, which makes them more dangerous in the short term. Iodine 131 has a half-life of 8 days, but when it gets into a thyroid gland it can do massive damage. The most common form of uranium, U-238, has a half-life of 4.5-billion-years.

Secrecy

HB 434 states that its proposed activities are an essential governmental function and that it addresses matters of public necessity. It repeals the Ohio Department of Health's authorization to regulate and oversee entities dealing with radioactivity. Eight of the bill's 14 pages are taken up creating a convoluted process for getting board members onto the Nuclear Development Authority. As if this were not enough to ensure that the public will be shut out of involvement and oversight of activities, today's amendment would move the Authority under the auspices of the Ohio Department of Development. While the Development Department signs contracts, the rest of the activities of the new Nuclear Development Authority would be within JobsOhio, where the public will have no access to its activities, and the Authority will be shielded from those annoying Ohio Open Records laws.

Attorney Terry Lodge points out that JobsOhio's conflict of interest policy makes it legal for entities to have a nonpublic meeting of their board about conflicts of interest, where they are required to keep minutes. But those minutes may be declared by the Board to not be public records.

The nuclear industry is far more secretive than any other energy industry. It's association with nuclear weapons makes its technology a national security secret, and its products must be guarded by threat of force. These radioactive products, both intentional and unintentional, have a second and very different security threat – the threat to the health and DNA of the American public and the natural world.

This is a very serious undercutting of the democratic process. A handful of people are set to gain money and profits at the expense of Ohio taxpayers. They don't have to risk their own money -- the public will take the risk. And who will take the profits? It won't be the public. Under socialism, the public takes the risks but they also get the profits, though most the profits lie in creating public good, such as education, with monetary savings kept in the public treasury. This is how REAL ESSENTIAL PUBLIC SERVICES work. What is happening here has been called "weird socialism" because capitalists benefit coming and going. Free market legislators should take note and stand in opposition to schemes like this.

Sincerely,
Patricia Marida
Columbus, Ohio