

Contaminated Middle School

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Fifteen years ago, in 2003 and 2004, the DOE disclosed that it had found traces of uranium in milk and eggs from area farms, and in vegetables from gardens next to the factory. Uranium, plutonium and or technetium were found in air, water, sediment and fish from area waterways, the *Dayton Daily* reported in November 2006. “Energy officials say none of the amounts are large enough to pose a health threat,” the *Dayton Daily* reported at the time. This reassurance is untrue because internal radiation exposures can never be considered safe, no matter how small.

In a May 14 press release, the Pike County General Health District raised concern that the government’s radioactive waste clean-up and disposal activities at Portsmouth have spewed radioactive dust clouds causing widespread dispersal downwind. The DOE has so far refused the Health District’s request to suspend its operations, claiming more data is needed.

Dusty bulldozing and open air demolition operations are now under way at the site to deconstruct the complex, decontaminate the grounds, and build a radioactive waste abandonment facility. NBC News reported May 15 that although “the contamination came from [the Portsmouth] plant ... the Department of Energy has repeatedly refused to cease operations there.”

While environmental contamination with uranium-235 and other uranium isotopes is worrisome, more troubling still is the detection of neptunium, americium, cesium, technetium, and plutonium in surrounding homes, surface waters, gardens and farmlands.

Between 1954 and 2001, the Portsmouth complex did uranium “enrichment” for US nuclear weapons—the dirty, dangerous process of increasing the amount of uranium-235 in large volumes of uranium.* The factory made weapons-grade uranium (more U-235) for H-bombs, and low-enriched uranium (less U-235) for nuclear reactor fuel.

As before, the Department of Energy said the radioactive contamination in and around the school is “well below established thresholds of concern for public health.” Likewise, the Ohio Environmental Protection Agency’s deputy director said “the amount reported is far below the risk level.” And in a May 16 letter to the DOE, Ohio Governor Mike DeWine said his understanding was that the amounts of neptunium and americium detected “are far below any public health risks.”

In the case of the neptunium, uranium, plutonium, americium and technetium found in the water, vegetables, fish and school yards of Piketon, Ohio, the authorities do not know what has happened or for how long, or, like before, are withholding the information. They do know that alarmed parents could become enraged.

Plutonium is an extremely toxic alpha radiation emitter that if ingested or inhaled seeks bone and attacks the body’s ability to make red blood cells.

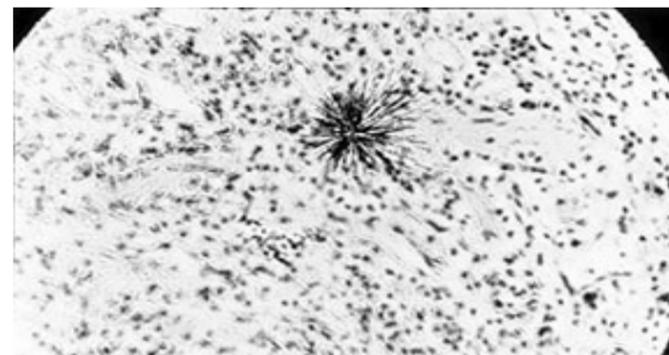
The authoritative Institute for Energy and Environmental Research reported on plutonium contamination in drinking water in its September 2005 edition of *Science for Democratic Action*. The institute concluded that the maximum contaminant level (MCL) for plutonium-239, and for toxins akin to it, in drinking water “should be tightened by about a factor of 100.”

Children are more vulnerable to the damaging health effects of radiation than are men, according to the National Academy of Sciences and independent experts. As *Science for Democratic Action* (SDA) reported in August 2009, “This is because radiation doses received in childhood are more likely to lead to cancer than the same dose received as an adult.”

In spite of this, radiation risk models still in use today are often based on an outdated “reference man” standard. The model estimates the risk that radiation poses to a hypothetical adult white male between 20 and 30 years of age, 5’7” tall, and weighing 154 pounds. As SDA made clear, the vast majority of people fall outside the definition. Not a single middle school kid falls inside of it.

—Beyond Nuclear’s Kevin Kamps contributed reporting to this story. Other sources were WKRC, May 27; Downwinders, Washington Bureau, May 22; the BBC, and the *Ironton Tribune*, May 15 & 16; WOSU Public Radio, May 15; *Newsweek*, and the Pike County General Health District, May 14; the *Columbus Dispatch*, May 13, 2019; the *Dayton Daily News*, May 15, 2019 & Nov. 12, 2006; and *Science for Democratic Action* from the Institute for Energy and Environmental Research. —*John LaForge*

* Separating uranium-238 from the bomb-grade uranium-235 produces mountains of radioactive waste. Some 700,000 tons of waste uranium-238, known as depleted uranium, is now stored in the United States, although some is given to weapons producers that make armor plate for tanks and poisonous armor-piercing ammunition.



“The black star in the middle shows the tracks made by alpha rays emitted from a particle of plutonium-239 in the lung tissue of an ape. The alpha rays do not travel very far, but once inside the body, they can penetrate more than 10,000 cells within their range. This set of alpha tracks (magnified 500 times) occurred over a 48-hour period.” Robert Del Tredici, *At Work in the Fields of the Bomb* (1987), plate 39.

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Contaminated Middle School Indefinitely Closed in Ohio



Zahn’s Corner Middle School in Piketon, Ohio, was closed May 14, after the Department of Energy disclosed that it had two-year-old evidence of radioactive contamination in and around its buildings. The school is two miles from the uranium enrichment factory known as the Portsmouth Gaseous Diffusion Plant. Photo by KDAK, Channel 2/CBS, Pittsburgh.

Cancer-causing radioactive poisons found outside and inside an Ohio middle school near a former H-bomb materials factory have led to the school’s abrupt closure. Students won’t be returning there in the fall.

Zahn’s Corner Middle School in Piketon—two miles from the Portsmouth Gaseous Diffusion Plant which for decades processed uranium for nuclear weapons—was closed in the face of parents’ frantic concern for their children’s health.

In mid-May 2019, the US Department of Energy (DOE) acknowledged that in 2017 it found trace amounts of highly radioactive neptunium-237 in air monitors on the

school grounds, the *Ironton Tribune* reported. The DOE also admitted that it found similarly toxic americium there in 2018. The *Dayton Daily News* reported that neptunium is a carcinogen linked to bone cancers. Why the discovery of radioactive chemicals was not made public at the time—and the school closed then—has not been explained by the DOE.

A more recent and independent study, conducted by Northern Arizona University in Flagstaff, found enriched uranium actually inside the middle school itself, and it found “plutonium, uranium, and neptunium in water and dust samples from other parts of the community” the Associated Press reported.

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