

Study Finds Radioactive Waste at St. Louis-Area Landfill Has Migrated Off-Site

Latest research likely to intensify debate about threat posed by old nuclear material stored at dump

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Radioactive contamination from a St. Louis-area landfill containing nuclear-weapons-related waste likely has migrated off-site, according to a study published this week in a scientific journal.

One of the authors of the private, peer-reviewed study, which appeared Tuesday in the Journal of Environmental Radioactivity, said he doesn't see any immediate health risks posed by the contamination that appears to be seeping from the West Lake landfill in Bridgeton, Mo.

Still, the findings are likely to intensify debate about how much of a threat the buried waste at the landfill poses to people in the area.

West Lake's owner, [Republic Services](#) Inc., as well as the U.S. Environmental Protection Agency, have said their radiation

sampling hasn't shown evidence of the site posing a threat to the public. A Republic spokesman deferred any comment on the study—which was funded by St. Louis-area activist, Kay Drey, who has been critical of keeping the radioactive waste at West Lake—to the EPA.

An EPA spokeswoman said the agency was reviewing the study but added that “the current scientific data demonstrates that the wastes are contained at the landfill and do not currently pose an off-site health risk to the surrounding community.”

The study's authors, who include Robert Alvarez, a former senior Energy Department official in the Clinton administration, said they gathered more than 200 samples of soil and sediments from a roughly 75-square-mile area around the landfill. Dozens of the samples contained levels of radioactive lead that exceeded a cleanup standard used in the past by the federal government, the study said.

With West Lake being the largest known nearby repository of radioactive material, the findings are “strong evidence” of the landfill being the primary source, the study concluded. Radon gas is likely escaping from the site and decaying into radioactive lead, said the study.

Some of the highest levels were found in dust samples from several homes, said Mr. Alvarez. Those locations “deserve further attention,” he said.

Mr. Alvarez, who has been critical of many federal nuclear policies, said some of the contamination, particularly in the homes, could be residue from old above-ground weapons-waste storage sites that were in the area until the early 1970s, when what was left was buried at West Lake.

For instance, as previously reported, [federal surveys have found](#) yards of some homes near a tainted creek that runs through the area to be contaminated with low levels of radioactive material, mainly thorium. Those homes are in the same vicinity as the houses where the radioactive lead was found.

Many of the other samples were taken closer to West Lake where the radioactive-lead levels found couldn't be explained by other possible known sources, said Mr. Alvarez. Those sample levels also tended to get higher closer to the landfill with some of the highest readings within a quarter mile or so of the site boundary, he added.

Much current scientific thinking holds that exposure to additional radiation raises someone's cancer risk. The additional danger is extremely low at very small doses with the risk rising along with the amount of exposure.

The new study is the latest contribution to a debate about whether West Lake contamination is moving off-site. In September, the Missouri attorney general's office, which has a pending suit against Republic over conditions at an adjacent non-nuclear dump, said its experts found evidence of radiological contamination in some trees on neighboring properties. Republic has said its experts dispute that finding. In 2014, amid citizen concerns, the EPA ran tests at a local complex of athletic fields. It found various radionuclides, including radioactive lead, but said [the levels didn't exceed federal safety standards](#).

The lead standard employed by the agency was less strict than ones used by the U.S. Army Corps of Engineers, which is doing radioactive-cleanup work in the St. Louis area. It was

also less strict than one used in a 1996 EPA report for a cleanup at a nuclear-weapons-related site in Fernald, Ohio. The just-released private study measured its lead findings against that Fernald standard.

An EPA spokeswoman said “cleanup levels for the same contaminant may vary from site to site.”