Study discovers new Fernald concerns

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Researchers have found a new, potentially more dangerous source of radon exposure for workers at the now-demolished Fernald uranium foundry.

The findings have many ramifications for former Fernald workers and their families, said Susan Pinney, an environmental health researcher at the University of Cincinnati and co-author of the study.

“Now we know workers in the plant’s production area prior to 1959 may be at increased risk for developing lung cancer and other exposure-related health problems,” Pinney said.

University of Cincinnati and Cincinnati Children’s Hospital Medical Center researchers announced Thursday that the newly identified radon source was a cluster of silos located near a major production area at the old foundry in Crosby Township.

The silos originally held high-grade uranium ore, then later byproducts from the refinement process.

Radon, a colorless, odorless gas, is a byproduct of uranium. It is the second-leading cause of lung cancer in the U.S.

Initially, two silos on the west side of the foundry were the only known source of radon exposure at the plant, which was owned and operated by the U.S. Department of Energy.

She and Richard Hornung, an environmental health researcher at Cincinnati Children’s and UC, co-wrote the study.

The newly identified silos — in the center of the foundry — caused relatively high levels of radon exposure for 12 percent of the workers at the foundry between 1952 and 1958.

More than 7,100 people worked at the foundry between 1952 and 1989, when production ceased.

The study estimates that 2,500 workers had higher radon exposure than previously thought, Hornung said.

Originally, researchers were trying to develop estimates on how much radon worker were exposed to from the K-65 silos, Hornung said. “When we studied radon tracks on film placed on window glass in the Fernald plant, we found evidence of a second, previously unidentified radon source.”

Third-shift plant workers were most affected, according to the study. Some years, their radon exposure was three times higher than workers on other shifts.

Workers who suffered health problems because of exposures to hazardous substances at the foundry — and their survivors — can receive compensation from the federal government, Pinney and Hornung said.

In most cases, lung cancer related to radon exposure develops 10 to 15 years after the initial exposure, though it can take longer, Pinney said.
That means many workers who developed lung cancer because of radon at Fernald are probably already dead, she said.

Those workers’ survivors might be eligible for compensation, she said.