

# Hematite Nuclear Facility

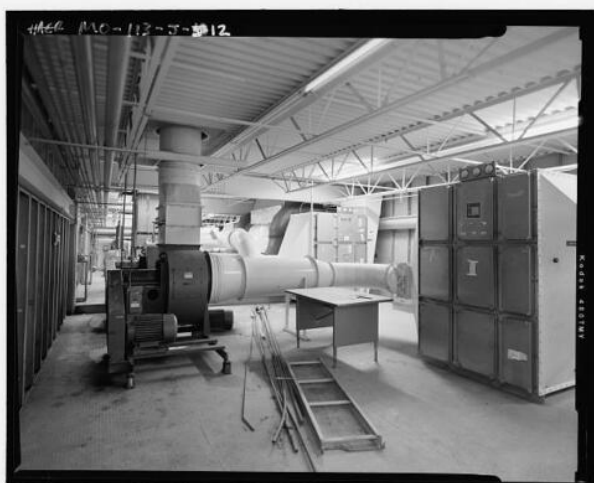
By: Lisa K. Gendron

Hematite was platted in 1861. The community was named for nearby deposits of hematite. A post office called Hematite has been in operation since 1858.

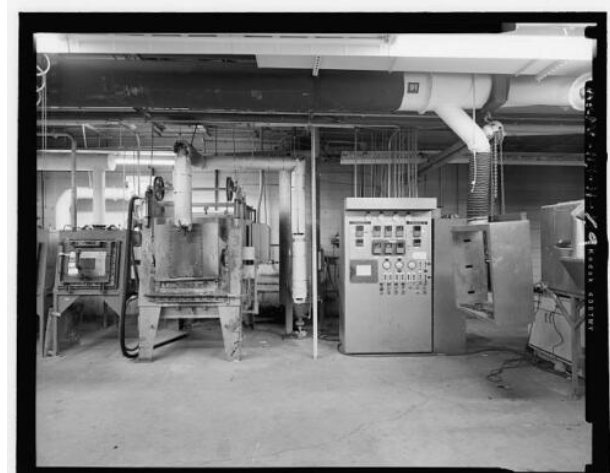
Westinghouse Electric Company's Hematite former fuel-cycle facility operated from 1956-2001. Mallinckrodt Chemical Works bought the original parcel of farmland in 1956 and operated the Hematite facility until 1961. United Nuclear Corporation owned the Hematite facility from 1961-1971, Gulf United Nuclear Fuels Corporation owned it from 1971-1974, General Atomic Company from January-May 1974, Combustion Engineering Inc. from 1974-1989, and Asea Brown Boveri Inc. acquired CE in 1989 and sold the facility to WEC in 2000. From 1956-1974, the Hematite facility researched and produced high-enriched nuclear fuel for the U.S. Navy nuclear submarine program and other reactor programs. From 1974-2001, the Hematite facility produced nuclear fuel assemblies of low-uranium enrichment for commercial nuclear power plants.

Two buildings existed on the site when MCW originally purchased it in 1956: the Tile Barn and the Wood Barn. The Tile Barn was a former dairy barn. Both buildings were used to store both clean and radiologically-contaminated equipment during the facility's operating period from 1956-2001. The first buildings constructed at the site were a process building, a utilities building and a material storage building in 1956. Following the purchase by Mallinckrodt, a number of buildings were constructed to support operations.





In 1974, radioactivity was found in buildings where high-enriched fuel was produced from uranium. These buildings were then partially decontaminated. In 1993, radioactive contamination in the Red Room roof burial area was discovered, but only partly removed. In 1995, the Site Creek was remediated because silt in the creek bed was contaminated with insoluble uranium-bearing sludge. Radioactivity also was found in soil and trash in the Burial Pit area. Past owners of the plant buried radioactive contaminated waste such as old equipment, gloves, shoe covers and overalls on the property in at least 40 unlined pits, the deepest of which was 26 feet. Contaminated soil was sent in rail cars — each loaded with 284,000 pounds of dirt, to a landfill in the Owyhee Desert of Idaho that accepts low-level radioactive material. The total Hematite site was 267 acres, although only 28 acres required remediation.





It was the oldest nuclear fuel manufacturing plant in the country when Westinghouse Electric Co. acquired the plant in 1999. They began decommissioning activities in 2002. The company spent \$146 million on the cleanup through June 2016.



During decontamination, water was sprayed on the pits daily to prevent potentially polluted dust from entering the air. Even the heavy equipment was only allowed to scrape six inches of soil at a time so the instruments could accurately detect radioactive material. They found rotted, metal drums and other trash, such as a construction remnants, and even a tailgate from a Studebaker pickup truck — the last Studebaker was made in 1966.

Many of the Hematite workers sought help since a federal compensation program was launched in 2001. Since then, the federal government has paid millions of dollars to former nuclear workers who were exposed to radiation through the program managed by the U.S. Department of Labor.



2006 photo courtesy of Westinghouse Electric Company

## Southeast Missourian Contamination at old nuclear plant results in legal melee

Monday, October 13, 2003  
, The Associated Press

**HEMATITE, Mo.** -- Over decades, a string of companies made nuclear fuel rods at a plant in Jefferson County. Since the plant closed two years ago, the current and past



owners of the plant have been pointing fingers at each other, claiming the others are responsible for cleaning up the contamination left behind.

The current owners, Westinghouse Electric Co. LLC, and former owners Mallinckrodt and United Nuclear Corp. of Waterford Corp. have all made claims in federal court that the other party, and in some cases the federal government, is liable for the contamination at the plant in Hematite, 35 miles southwest of St. Louis.

All parties claim they are not to blame.

Joseph Bindbeutel, chief counsel for the Missouri attorney general's environmental division, expects a legal melee to figure out who is at fault.

"Everybody's going to claim every defense possible under the sun," Bindbeutel said. "They will bring other potentially responsible parties into the litigation. We're going to go through the whole nine yards."

From 1956 to 2001, the plant turned uranium into fuel rods under a parade of owners. The first was Mallinckrodt, which built the plant in 1956 and ran it until May 1961.

After that, United Nuclear owned and operated it until 1971. Combustion Engineering Inc. bought the plant in 1974 and ran it until April 2000, when Westinghouse purchased the nuclear operations of Combustion Engineering's parent company, ABB Ltd.

Westinghouse finally closed the plant in June 2001, days after the purchase was finalized.

60 pounds of uranium

Last month, the state of Missouri got involved by filing a federal lawsuit in St. Louis seeking damages from the companies and the federal government.

The state's lawsuit claims radioactive material -- including nearly 60 pounds of potentially dangerous radioactive uranium-235 -- was dumped in 40 unlined pits from the late 1950s through the early 1960s.

The threat to humans was not found until December 2001, when tests found trichloroethylene -- a cancer-causing chemical used as a solvent -- in the first of eight private wells used for drinking water.

In response, Westinghouse supplied neighbors with bottled water and filtration systems. It has spent more than \$2 million to connect about 25 families to a public water system, the company says.

But the company thinks the federal government and former owners are responsible. Kevin Hayes, an environmental manager for Westinghouse, said the government is

responsible because the plant made fuel rods for the military and the Atomic Energy Commission for about two decades, ending in the mid-1970s.

Hematite residents are also looking for someone to blame. Several have filed lawsuits saying the companies fouled their land and water while failing to inform them.

"It's something that's been neglected for a long time, and now I don't think they know how to handle it," said Clarissa Eaton, who has filed a lawsuit.

"They kept playing hot potato. Someone would move in and sell the stuff and make a lot of money. Well, the music stopped, and Westinghouse ended up with the hot potato."



2012 photo courtesy of Westinghouse Electric Company

