

# FERNALD FACT SHEET ~ AQUIFER RESTORATION/WASTEWATER PROJECT



**From 1952 to 1989, the Fernald site produced 500 million pounds of pure uranium metal products** for the nation's Cold War defense program. When the site ceased operations in 1989 because of declines in demand for Fernald's products and increasing environmental concerns, 31 million net pounds of nuclear product, 2.5 billion pounds of waste and 2.5 million cubic yards of contaminated soil and debris remained on site. Since then, Fernald workers have been dedicated to the environmental remediation of the 1,050-acre site.

**In 1986, Fernald began a 10-year environmental site investigation** to determine contamination levels and develop cleanup plans. The investigation resulted in Records of Decision, or final cleanup plans, for five operable units. Operable Unit 5 (OU5) involves remediation of contaminated portions of the underlying Great Miami Aquifer, one of the largest sources of drinking water in the nation. Operable Unit 5 also involves remediation of contaminated soil not included in other cleanup plans.

**In 1996, the Department of Energy (DOE), Fluor Fernald, regulators and stakeholders agreed on a cleanup plan for Operable Unit 5.** The plan entails restoring the portions of the aquifer that became contaminated during Fernald's uranium processing mission. Crews pump contaminated water to the surface and provide treatment as required to meet the uranium concentration discharge limits established by the OU5 Record of Decision. The plan also addresses the need to treat contaminated stormwater and wastewater resulting from cleanup of other site operable units.

**The Aquifer Restoration/Wastewater Project currently has about 20 extraction wells pumping contaminated groundwater out of the aquifer at a rate of about 5,000 gallons per minute (gpm).** Since Fernald initiated pumping in 1993, the system has extracted several billion gallons of groundwater from the aquifer.

*PHOTO: The Advanced Wastewater Treatment Facility is an important part of Fernald's Aquifer Restoration and Wastewater Project (6385-458).*

AQUIFER RESTORATION