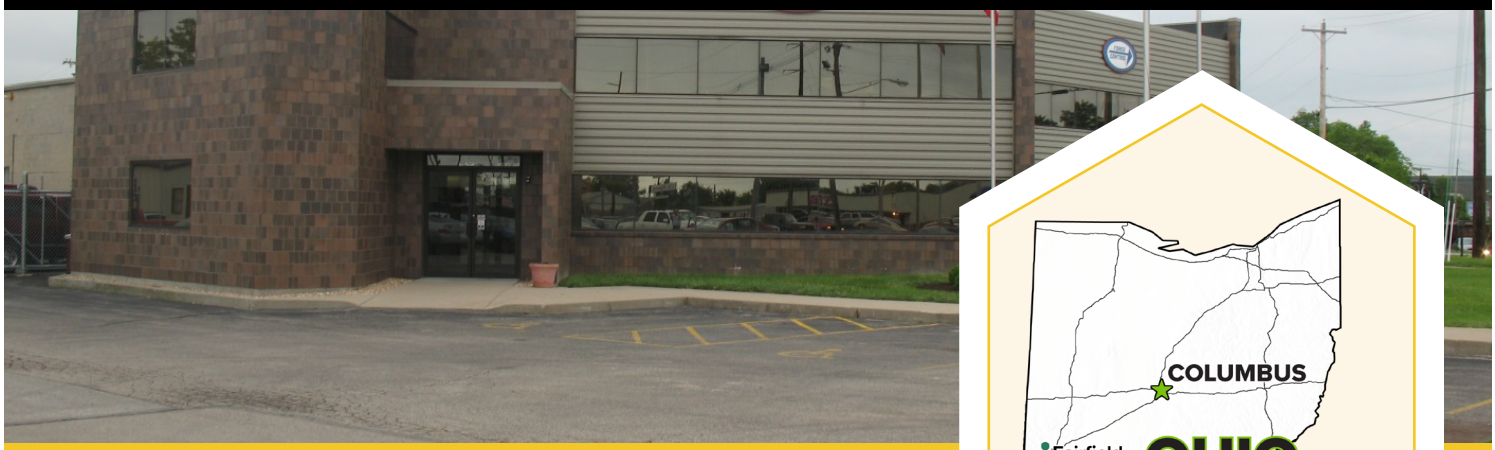
Fact Sheet

U.S. DEPARTMENT OF ENERGY | Legacy Management



Fairfield, Ohio, Site

A FUSRAP site

This fact sheet provides information about the **Fairfield site**. Long-term stewardship responsibilities for this site are managed by the **U.S. Department of Energy Office of Legacy Management** under the **Formerly Utilized Sites Remedial Action Program**.

Site Information and History

The Fairfield, Ohio, Site (formerly the Associate Aircraft Tool and Manufacturing site) is located at 3660 Dixie Highway, approximately 15 miles northwest of Cincinnati. The site comprises the former Associate Aircraft building and an exterior parking lot shared by two other companies. The machine shop is housed in a building approximately 20,000 to 25,000 square feet in area. Force Control Industries, Inc., purchased the site in 1969 from Dixie Machinery.

From February to September 1956, Associate Aircraft Tool and Manufacturing Company, a Cincinnati area machine shop, contracted with the U.S. Atomic Energy Commission (AEC) through the National Lead of Ohio (NLO) to machine and shape uranium metal for the Hanford, Washington, and Savannah River, South Carolina, nuclear reactors. The primary activities included machining, hollow drilling, reaming, and turning approximately 95,000 pieces of uranium stock to a final outside diameter. The contract expired in September 1956 and was not renewed.

From October through November 1956, Associate Aircraft decontaminated the site (under NLO supervision) to levels considered acceptable at that time. After an intensive five-week decontamination period, NLO conducted radiological surveys and determined that alpha radiation was well below applicable guidelines. A December 1956 decontamination report recorded contamination levels on machine surfaces exceeding existing guidelines, but it was assumed (but not documented) that final disposition of the equipment complied with contractual requirements.

During a limited radiological survey in June 1992, uranium contamination was found in some concrete expansion joints and on several overhead horizontal surfaces. A radiological survey of the remainder of the property, conducted in September 1992, identified additional residual uranium contamination inside the building and in several small, isolated areas around the building. In 1993, the Fairfield site was designated for remedial action under the Formerly Utilized Sites Remedial Action Program (FUSRAP).

From December 1994 to June 1995, Bechtel National, Inc., the project management contractor for FUSRAP, defined the extent of contamination and performed remedial design engineering and remedial action at the Fairfield site. ThermoAnalytical (now Thermo NUtech) served as the radiological support subcontractor for sampling and analysis activities, and Oak Ridge National Laboratory was the independent verification contractor. Natural uranium isotopes were found to be the only material contributing significantly to contamination at the site. Supplemental limits were applied to residual uranium-238 that was left in place in soil beneath a concrete slab in a bay built in 1994 on the east end of the building.

All soils and residual radioactive materials from the building that exceeded site-specific health-based guidelines were removed from the site and disposed of as low-level radioactive waste at a licensed disposal facility in Clive, Utah. In addition, all lead-containing paint contaminated with residual radioactive material above site-specific criteria was removed from the site and managed as a mixed waste stream in accordance with applicable hazardous waste regulations. Asbestos-containing floor tiles contaminated with radioactive materials were also removed, packaged, and shipped to a commercial low-level radioactive waste disposal facility.

Regulatory Setting

AEC, the predecessor agency to DOE, established FUSRAP in March 1974 to evaluate radioactive contamination at sites used in the development of the nation's nuclear weapons and atomic energy programs. DOE has the legislative authority under the Atomic Energy Act (AEA) of 1954, as amended, to perform radiological surveys, monitoring, and maintenance at sites used to support the nuclear activities of DOE's predecessor agencies. DOE also has legislative authority under the AEA to remediate FUSRAP sites identified as requiring some form of response action. In 1997, Congress transferred responsibility for FUSRAP site characterization and remediation from DOE to the U.S. Army Corps of Engineers. The DOE Office of Legacy Management (LM) retains responsibility for long-term care of remediated FUSRAP sites. For more information about the program, please see the FUSRAP fact sheet.

The Fairfield site was remediated to criteria in DOE Order 5400.5, *Radiation Protection of the Public and the Environment.* A notice of cleanup certification for the site was published in the *Federal Register* on September 16, 1996.

In fiscal year 2004, DOE transferred long-term stewardship responsibilities for the Fairfield FUSRAP site from the DOE Office of Environmental Management to LM.

Current Site Conditions

Post-remedial action survey data indicate that the radiological condition of the Fairfield site is in compliance with applicable health-based standards and guidelines for cleanup of residual radioactive contamination. An independent verification survey conducted after the completion of remedial action detected no residual radioactivity that exceeded current guidelines. Therefore, DOE released the site for unrestricted use. The site has been restored to a condition acceptable to the owner.

Legacy Management Activities

No monitoring, maintenance, or site inspections are required for the Fairfield site. LM's responsibilities consist of managing site records and responding to stakeholder inquiries.

New Building Addition at the Fairfield, Ohio, Site, May 2006

CONTACT INFORMATION

IN CASE OF AN EMERGENCY AT THE SITE, CONTACT 911.

Site-specific documents related to the **Fairfield, Ohio, Site** are available on the LM website at **www.energy.gov/lm/fairfield-ohio-site.**

For more information on FUSRAP site history or current long-term stewardship activities, contact:
U.S. Department of Energy
Office of Legacy Management
2597 Legacy Way
Grand Junction, CO 81503

Email:
FUSRAPinfo@lm.doe.gov
public.affairs@lm.doe.gov

DOE Office of Legacy Management
(970) 248-6070 (monitored continuously)
(877) 695-5322 (toll-free)

www.energy.gov/lm

www.facebook.com/OfficeofLegacyManagement

www.linkedin.com/company/legacy-management

05/2020