



## Columbus, Ohio

### A MED/AEC LEGACY SITE

This fact sheet provides information about the **Columbus site**. Long-term stewardship responsibilities for this site are managed by the **U.S. Department of Energy Office of Legacy Management** under the **Manhattan Engineer District/Atomic Energy Commission Legacy Site**.



## Site Information and History

The Columbus, Ohio, Sites consist of two geographically separate properties owned by the Battelle Memorial Institute: the King Avenue site, located in the city of Columbus, and the West Jefferson site, located approximately 15 miles west of Columbus. Battelle conducted extensive nuclear research at both locations for the U.S. Department of Energy (DOE) and its predecessor agencies between 1943 and 1986. The research resulted in contamination of soil, buildings, and equipment with radioactive and mixed waste materials. Environmental cleanup of the sites began in 1986.

The 6-acre King Avenue site, which was historically a part of the federal government's fuel and target fabrication program, consisted of nine buildings and the surrounding grounds. Nuclear research conducted at the site included processing and machining of enriched, natural, and depleted uranium and thorium; fabricating fuel elements; analyzing radionuclides; and studying powder metallurgy. These operations resulted in contamination of facilities and equipment with uranium and thorium residue. Remediation began in 1988 and was completed in 2000.

Contamination at the 11-acre West Jefferson site was more extensive than that at the King Avenue site. Research

was performed in two areas at West Jefferson: the Nuclear Sciences Area in the northern portion of the site (three buildings) and the Engineering Area in the southeastern portion (three buildings). The buildings in the Engineering Area were used for fuel element fabrication and ballistics studies. These buildings were remediated and are still standing and in use by Battelle. In the Nuclear Sciences Area, the former hot cell facility was the most highly contaminated. Work conducted there included examination and evaluations of power and research reactor fuels; post-irradiation examination of the fissile control rod, source, and structural materials and components; and examinations of irradiation surveillance capsules. The other two buildings at the Nuclear Sciences Area were the Critical Assembly Laboratory and the nuclear reactor research building. Environmental cleanup was completed in 2006 and consisted of removing all contaminated structures, underground piping, and a filter bed.

A total of 1.7 million tons of low-level and mixed low-level waste and 41 tons of transuranic waste were removed from the King Avenue and West Jefferson sites and shipped offsite.

## Regulatory Setting

When a licensed facility ceases operation, the U.S. Nuclear Regulatory Commission (NRC) requires that the site be decommissioned according to certain criteria. The purpose of decommissioning is to reduce residual radioactivity to a level that allows the property to be safe for public use.

Battelle conducted cleanup of the King Avenue and West Jefferson sites under the regulatory requirements of an NRC license, and cleanup proceeded according to an NRC-approved decommissioning plan.

Pursuant to Section 274 of the Atomic Energy Act of 1954, a state may reach an agreement with NRC (and the state then becomes an Agreement State) allowing that state to regulate the use of the NRC-licensed radioactive materials within its borders. Decommissioning oversight for the King Avenue site was transferred to the state of Ohio when the state became an NRC Agreement State in 1999.

NRC retained jurisdiction over the West Jefferson site due to total possession of special nuclear materials (SNM) in quantities that exceeded the limits specified in Title 10 *Code of Federal Regulations*, Part 150.

## Current Site Conditions

Following the cleanup at King Avenue and West Jefferson site, the Oak Ridge Institute for Science and Education in Oak Ridge, Tennessee, conducted an independent verification of the site and concluded that radiological conditions met NRC release criteria. Battelle submitted the final certification package to NRC in accordance with NRC de-licensing procedures. NRC terminated Battelle's SNM-7 license for Kings Avenue and West Jefferson site in 2008. Both the King Avenue and West Jefferson sites have been released to Battelle for unrestricted use.

## Legacy Management Activities

Responsibility for maintaining historical records for the Columbus sites transferred to the DOE Office of Legacy Management (LM) in 2008. No monitoring, maintenance, or site inspections are required for the site. LM's responsibilities consist of managing site records and responding to stakeholder inquiries.

## Contact Information

**In case of an emergency at the site, contact 911.**

LM toll-free emergency hotline: **(877) 695-5322**

Site-specific documents related to the **Columbus, Ohio, Sites** are available on the LM website at [www.energy.gov/lm/columbus-ohio-site](http://www.energy.gov/lm/columbus-ohio-site).


For more information about LM activities at the **Columbus, Ohio, Sites**, contact:

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