



FUSRAP

Beverly, Massachusetts, Site

This fact sheet provides information about the Beverly, Massachusetts, Site. This site is managed by the U.S. Department of Energy Office of Legacy Management under the Formerly Utilized Sites Remedial Action Program.

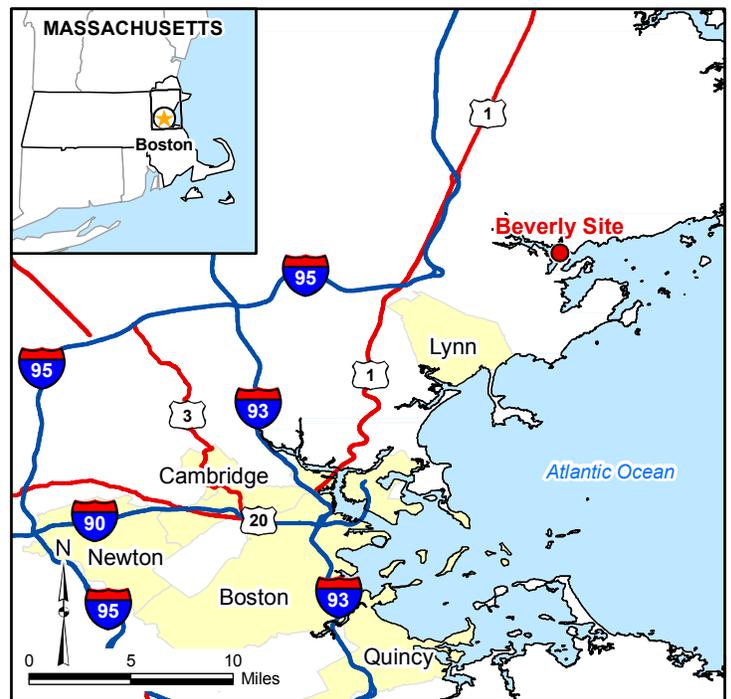
Site Description and History

The Beverly, Massachusetts, Site (formerly the Ventron Site) is located on Massachusetts Bay at the confluence of the Bass River on the west and the Danvers River on the south. A railroad borders the site on the east, and a granite seawall surrounds the property along its boundaries with the two rivers. The city of Beverly lies approximately 15 miles northeast of Boston. The 3-acre Beverly site was formerly a chemical manufacturing plant and research and development facility owned by Morton International.

From 1942 to 1948, Metal Hydrides Corporation conducted operations at the site under contract to the Manhattan Engineer District and its successor, the U.S. Atomic Energy Commission (AEC). Operations at the site involved conversion of uranium oxide to uranium powder and, later, to uranium metal. Other operations at the site included recovering uranium from the scrap of a fuel fabrication plant in Hanford, Washington. Uranium-238 was identified as the primary contaminant of concern from those activities.

Between 1948 and 1950, after AEC surveyed and decommissioned the site, two of the original foundry facility buildings were demolished, and two new buildings were erected in their place. Another structure, the Alfa Building, was constructed and used for operations involving purification of thorium compounds. Contamination from thorium-232 and, to a lesser extent, radium-226 resulted from this work. Beneath Building A, radium was mixed with asbestos-containing material. Although uranium contamination at the site was the result of work performed for AEC, the thorium and radium contamination resulted from private operations that did not involve work for the federal government.

In 1977, after the Thiokol Corporation (renamed Morton International in 1990) acquired the property, Oak Ridge



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Location of the Beverly, Massachusetts, Site

National Laboratory of the U.S. Department of Energy (DOE) conducted a radiological screening survey at the site. On the basis of results from the screening survey, DOE determined that a comprehensive radiological survey of the entire site was needed. In 1986, the site was designated for remedial action under the Formerly Utilized Sites Remedial Action Program (FUSRAP).

Initial remedial action activities began in 1995 with excavation and cleanup of contamination from portions of the harbor

adjacent to the seawall. Residual contamination within the seawall could not be remediated because of stability and safety concerns. Morton International demolished 10 buildings, and uncontaminated rubble from the buildings was used as backfill along the seawall. Alfa Building was also demolished to provide access to underlying contaminated soil. Only two buildings (the Biocides Building and Building E) were left standing at the site. Approximately 9,500 cubic yards of radioactively contaminated soil, including asbestos-containing material, was removed and shipped to Clive, Utah, for disposal.

Regulatory Setting

AEC, a predecessor agency to DOE, established FUSRAP in March 1974 to evaluate radioactive contamination at sites where work was performed to develop the nation's nuclear weapons and early atomic energy program. After reviewing records and radiological surveys for more than 600 sites connected with the nuclear weapons program, DOE identified 46 sites that required cleanup, including the Beverly site. Congress transferred responsibility for FUSRAP site characterization and remediation to the U.S. Army Corps of Engineers in 1997. DOE retains responsibility for long-term surveillance and maintenance of remediated FUSRAP sites.

Because contamination at the site resulted from operations performed for both the federal government and private industry, a 1996 Memorandum of Agreement between DOE and Morton International defined responsibilities for cleanup at the site.

DOE remediated contamination at the Beverly site, for which it was responsible, to criteria in DOE Order 5400.5, *Radiation Protection of the Public and the Environment*. DOE applied supplemental limits to residual radioactive material remaining on building slabs that were left in place after remediation. Supplemental limits may be applied in place of the primary limits established in DOE guidelines at locations where the cost of remediation would be unreasonably high compared to the long-term benefits, and the residual contamination does not pose a present or future risk to workers or members of the public. A notice of cleanup certification for the site was published in the *Federal Register* on October 20, 2003.

In fiscal year 2004, DOE transferred responsibility for the Beverly site from the DOE Office of Environmental Management to the DOE Office of Legacy Management (LM).

Current Site Conditions

Post-remedial-action survey data indicate that the radiological condition of the Beverly site is in compliance with applicable DOE standards and guidelines for cleanup of residual radioactive contamination. DOE certified that reasonably foreseeable future use of the property will result in no radiological exposure above current guidelines established to protect members of the general public as well as occupants of the site. Therefore, DOE released the site for unrestricted use. Supplemental limits were applied to surface contamination fixed on concrete slabs; rubblized demolition debris did not exceed volumetric limits. The remaining foundation materials have no disposal restrictions.

Legacy Management Activities

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

Additional Information

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

Documents related to FUSRAP activities at the Beverly site are available on the LM website at <http://www.lm.doe.gov/beverly/Sites.aspx>.

For other information on site history or current long-term stewardship activities, please contact us at:

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