



# Formerly Utilized Sites Remedial Action Program

*This fact sheet provides information about the Formerly Utilized Sites Remedial Action Program sites. When remedial action for a site is complete, the site will be managed under the U.S. Department of Energy Office of Legacy Management.*

## Background

The U.S. Atomic Energy Commission (AEC) established the Formerly Utilized Sites Remedial Action Program (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.

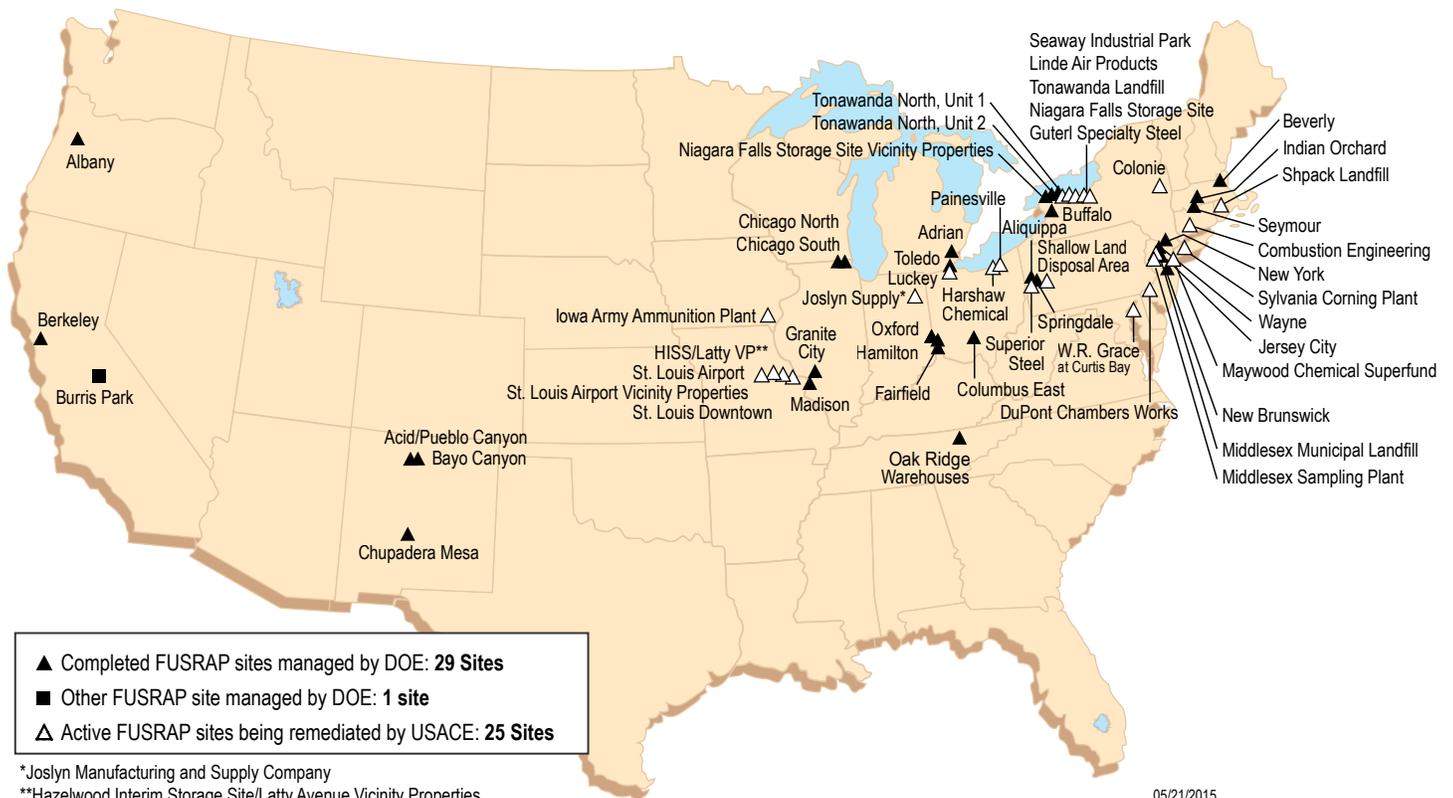
In August 1942, the U.S. Army directed the Manhattan Engineer District (MED) of the U.S. Army Corps of Engineers to manage development of the technology and production facilities for the first atomic weapons. In August 1946, President Truman signed the Atomic Energy Act, which created the civilian AEC. Congress abolished MED on January 1, 1947, and transferred responsibility for the atomic weapons program to the newly formed AEC.

Through the 1960s, AEC employed contractors at many sites throughout the United States to supply materials and services. Activities included processing and storing uranium and thorium ores and other radioactive materials for the nuclear weapons program, performing metallurgical research, and providing production and machining services. Although

most of the sites were cleaned up to guidelines that were in effect at the time, more stringent standards have been put into effect since then. AEC identified a need to reexamine the sites in the early 1970s to evaluate potential risks to human health and the environment where levels of radioactive contamination might exceed the new standards.

In 1977, administration and execution of FUSRAP was assumed by the U.S. Department of Energy (DOE), whose initial task was to identify potential FUSRAP sites for cleanup. After reviewing records and radiological survey data for more than 600 sites connected with the nuclear weapons program, DOE identified 46 sites that required cleanup. Limited cleanup began in 1979, and major remedial action was underway in 1981. Between 1981 and 1997, DOE remediated 25 of the 46 sites.

Congress transferred responsibility for FUSRAP site characterization and remediation to the U.S. Army Corps of Engineers (USACE) in 1997 as part of the Energy and Water Development Appropriations Act of 1998. USACE is remediating the remaining sites within the framework of the Comprehensive Environmental Response, Compensation,



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and Liability Act of 1980 (CERCLA) and the National Contingency Plan.

A 1999 Memorandum of Understanding between USACE and DOE defined the roles of each agency in administering and executing FUSRAP. DOE retained long-term care responsibility for the 25 sites cleaned up between 1981 and 1997 and will take over care of the remaining FUSRAP sites after cleanups are completed. Long-term care includes surveillance, operation, and maintenance of remediated sites, including any institutional controls imposed on the sites. Institutional controls typically depend on legal orders such as zoning ordinances, laws, and deed restrictions to protect public health and the environment from hazardous substances left in place at a site or to ensure the effectiveness of the remedy. In 2004, the DOE Office of Legacy Management (LM) was assigned to manage the DOE program.

USACE assumed responsibility for cleaning up the remaining 21 of the 46 sites that DOE identified in the original assessment. Following site closeout, defined as the completion of cleanup and publication of a notice in accordance with the provisions of CERCLA, the National Contingency Plan, and USACE procedures, USACE retains responsibility for two more years, and then transfers the site to DOE for long-term care.

## Potential New Sites

After further research or receipt of new information, DOE may identify additional sites that are potential candidates for remediation under FUSRAP. Sites involved in MED/AEC work are eligible for remediation under FUSRAP and DOE may also assume responsibility for sites that don't need remediation but do need long-term care. DOE has referred several sites to USACE for preliminary assessments to evaluate contaminant levels. USACE will propose that sites be added to the program where risks or contaminant levels exceed current standards. Congress may also designate a site for remediation under FUSRAP. Since 1997, eight additional sites have been added to FUSRAP.

## Current Status

DOE is responsible for 24 of the 25 sites that were completed before 1997. DOE has referred one site back to USACE for additional remediation and USACE has completed and transferred responsibility for five additional sites to DOE. USACE currently is responsible for remediating the remaining sites.

USACE has also performed additional assessment work at the New Brunswick site in New Jersey. In accordance with the 1997 legislation and the 1999 Memorandum of Understanding, if additional assessment or remedial action is required for a FUSRAP site that has been transferred to DOE for long-term surveillance and maintenance, USACE will perform the additional work.

In April 2009, DOE identified previously unassessed radioactive contamination at the Middlesex North (Middlesex Municipal Landfill), New Jersey, Site, and referred the site to the Corps of Engineers for further assessment and characterization. USACE determined the site requires additional remediation and accepted it as an active site. Since then, DOE has also referred sites on Staten Island, New York, and Brooklyn, New York, to USACE for assessment and possible inclusion into FUSRAP. The Berkeley, California, Site and two vicinity properties at the Niagara Falls Storage Site in Lewiston, New York, have also been referred back to USACE for further assessment and characterization.

## Legacy Management Activities

DOE remediated most of the FUSRAP sites to a condition that allows unrestricted use of the site following cleanup. These sites pose little if any risk for any possible future land use, including subsistence farming. The subsistence farming land-use scenario is the most restrictive because it assumes that humans living on the property will consume food that is produced on the property. Contaminants must be removed to the point that possible routes of exposure (ingestion, direct exposure, and inhalation) present no unacceptable risk to human health. For these sites, DOE long-term care activities consist of responding to questions or concerns from stakeholders and managing site records.

At some sites, residual contaminants were left in place, and some site uses must be restricted. At those locations, long-term DOE care may include additional monitoring, maintenance, treatment, inspections, managing land-use controls, and periodic reviews in accordance with approved site-specific plans. Activities will also include managing records and data, and responding to stakeholder concerns.

Regulatory requirements are described in site documents available on the LM website at <http://energy.gov/lm>.

DOE maintains the FUSRAP Considered Sites Database to provide public access to historical information about sites that were evaluated during the search for potential FUSRAP sites. This information documents eligibility determinations and characterization, remediation, verification, and certification activities for FUSRAP sites. The Considered Sites Database is available to the public online at <http://energy.gov/lm/sites/lm-sites/considered-sites>.

## Additional Information

For more information about FUSRAP, contact:

U.S. Department of Energy  
Office of Legacy Management  
2597 Legacy Way, Grand Junction, CO 81503

(970) 248-6070 (monitored continuously),  
or (877) 695-5322 (toll-free)

[FUSRAPInfo@lm.doe.gov](mailto:FUSRAPInfo@lm.doe.gov)

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## Completed FUSRAP Sites Assigned to LM

(Alternate site names are shown in parentheses)

Acid/Pueblo Canyon,  
New Mexico, Site  
(Acid/Pueblo Canyon)

Adrian, Michigan, Site  
(General Motors)

Albany, Oregon, Site  
(Albany Research Center)

Aliquippa, Pennsylvania, Site  
(Aliquippa Forge)

Bayo Canyon,  
New Mexico, Site  
(Bayo Canyon)

Berkeley, California, Site  
(University of California)

Beverly, Massachusetts, Site  
(Ventron Corporation)

Buffalo, New York, Site  
(Bliss and Laughlin  
Steel Company)

Chicago North, Illinois, Site  
(National Guard Armory)

Chicago South, Illinois, Site  
(University of Chicago)

Chupadera Mesa, New Mexico, Site  
(Chupadera Mesa)

Columbus East, Ohio, Site  
(B & T Metals Site)

Fairfield, Ohio, Site  
(Associate Aircraft Tool and  
Manufacturing)

Granite City, Illinois, Site  
(Granite City Steel)

Hamilton, Ohio, Site  
(Herring-Hall Marvin Safe Company)

Indian Orchard, Massachusetts, Site  
(Chapman Valve Site)

Jersey City, New Jersey, Site  
(Kellex/Pierpont)

Madison, Illinois, Site  
(Spectrulite Consortium, Inc.)

New Brunswick, New Jersey, Site  
(New Brunswick Laboratory)

New York, New York, Site  
(Baker and Williams Warehouses)

Niagara Falls Storage Site  
Vicinity Properties, New York, Site  
(Niagara Falls Storage Site  
Vicinity Properties)

Oak Ridge, Tennessee, Warehouses Site  
(Elza Gate)

Oxford, Ohio, Site  
(Alba Craft Laboratories)

Seymour, Connecticut, Site  
(Seymour Specialty Wire)

Springdale, Pennsylvania, Site  
(C.H. Schnorr)

Toledo, Ohio, Site  
(Baker Brothers, Inc.)

Tonawanda North, New York, Site,  
Unit 1  
(Ashland #1)

Tonawanda North, New York, Site,  
Unit 2  
(Ashland #2)

Wayne, New Jersey, Site  
(Wayne Interim Storage Site)

## Other FUSRAP Sites Assigned to LM

Burris Park, California, Site  
(Burris Park Research Station)

## Active FUSRAP Sites\* Assigned to U.S. Army Corps of Engineers

Colonie Site  
Colonie, New York

Combustion Engineering Site  
Windsor, Connecticut

DuPont Chambers Works  
Deepwater, New Jersey

Guterl Specialty Steel  
Lockport, New York

Harshaw Chemical Company  
Cleveland, Ohio

Iowa Army Ammunition Plant  
Middletown, Iowa

Joslyn Manufacturing and  
Supply Company  
Ft. Wayne, Indiana

Hazelwood Interim Storage Site/  
Latty Avenue Vicinity Properties  
Hazelwood, Missouri

Linde Air Products Division Site  
Tonawanda, New York

Pathfinder - Lucky Mc Site  
Gashills North, Wyoming

Luckey Site  
Luckey, Ohio

Maywood Chemical Superfund Site  
Maywood, New Jersey

Middlesex Municipal Landfill  
Middlesex North, New Jersey

Middlesex Sampling Plant  
Middlesex, New Jersey

Niagara Falls Storage Site\*\*  
Lewiston, New York

Painesville Site  
Painesville, Ohio

Shallow Land Disposal Area  
Parks Township, Pennsylvania

St. Louis Airport Site  
Berkeley, Missouri

St. Louis Airport Site Vicinity Properties  
Berkeley, Missouri

St. Louis Downtown Site  
St. Louis, Missouri

Seaway Industrial Park Site  
Tonawanda, New York

Shpack Landfill Site  
Attleboro, Massachusetts

Superior Steel  
Carnegie, Pennsylvania

Sylvania-Corning Plant  
Hicksville, New York

Tonawanda Landfill  
Tonawanda, New York

W.R. Grace at Curtis Bay Site  
Curtis Bay, Maryland

\*Additional sites may be added.

\*\*Includes three vicinity properties.

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## Resources

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*2001 Report to Congress on Long-Term Stewardship*  
[http://ndep.nv.gov/lts/lts\\_report\\_congress\\_Vol1.pdf](http://ndep.nv.gov/lts/lts_report_congress_Vol1.pdf)

Considered Sites Database  
<http://energy.gov/lm/sites/lm-sites/considered-sites>

DOE Office of Legacy Management website  
<http://energy.gov/lm>

U.S. Army Corps of Engineers website  
<http://www.usace.army.mil/Missions/Environmental/FUSRAP.aspx>