



Formerly Utilized Sites Remedial Action Program

F U S R A P ♦ U P D A T E

Greetings

This update is written to share information with you about the U.S. Department of Energy (DOE) Formerly Utilized Sites Remedial Action Program (FUSRAP). This dynamic program oversees long-term surveillance and maintenance of 30 sites remediated under FUSRAP. In addition, program staff does ongoing work to verify that historic and recent site records are accessible and preserved, and staff respond to many requests for information every year. A vital program function is coordinating program activities with U.S. Army Corps of Engineers (USACE), as the two agencies work within their respective roles to ensure that FUSRAP operates effectively with no lapse of protectiveness for the 53 sites in FUSRAP.

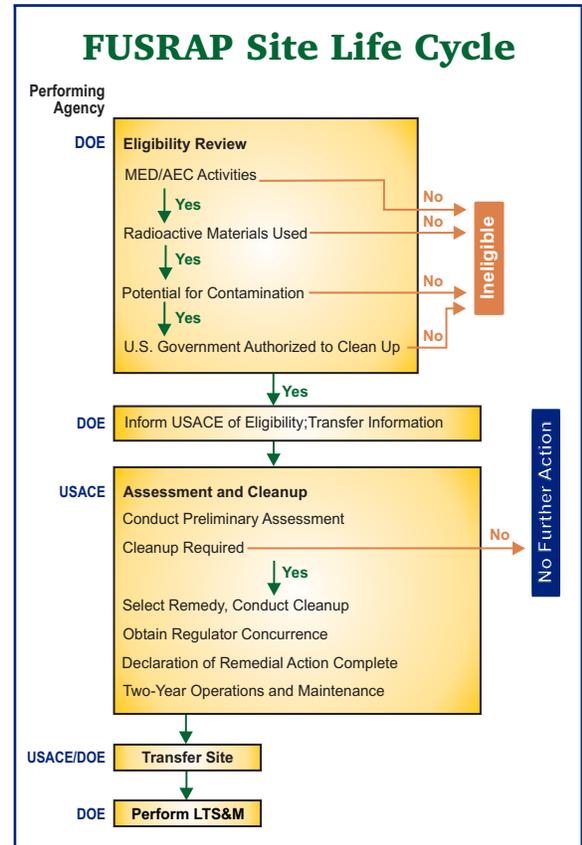
In this update, we feature some recent FUSRAP activities. I hope this information provides a sense of the breadth of DOE FUSRAP responsibilities and the broad range of skills and expertise needed to accomplish program goals and obligations.

All DOE FUSRAP activities are conducted with the overriding requirement that DOE will maintain site remedies so the sites are protective of human health and the environment. DOE also will preserve knowledge of FUSRAP sites for the ongoing benefit of future custodians and the public. Please visit our website at <http://www.lm.doe.gov/default.aspx?id=866>, where we describe the program and provide information about DOE FUSRAP sites. You may contact us at fusrapinfo@lm.doe.gov.

Sincerely,
Chris Clayton
FUSRAP Manager
DOE Office of Legacy Management (LM)

Program Information

DOE FUSRAP was established in 1974 to address residual radiological contamination at sites where work was performed for the Manhattan Engineer District (MED) and U.S. Atomic Energy Commission in development of the nation's early nuclear weapons and atomic energy program. Initially, FUSRAP activities began with a records search of more than 600 sites that had the potential to contain residual radiological contamination; 46 sites were identified that were eligible for and required remediation under FUSRAP. Remedial action work by DOE began in 1979. In 1997, Congress assigned responsibility for characterization and remediation of FUSRAP sites to the USACE. A 1999 Memorandum of Understanding (MOU) between USACE and DOE defined the roles of each agency in administering and executing FUSRAP. DOE retains responsibility for determining if sites are eligible for FUSRAP remediation and for providing long-term surveillance and maintenance (LTS&M) of the 25 sites that were remediated by DOE prior to the 1999 MOU.



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LM FUSRAP Activities at the Former Lake Ontario Ordinance Works (LOOW)



LOOW and the Niagara Falls Storage Site (NFSS)

Early in World War II, the federal government established the LOOW on approximately 7,500 acres near Lewiston, New York. The explosives plant operated for nearly a year, then was closed. Approximately 1,500 acres of the property where plant operations were conducted were assigned to the MED to store radioactive residues and other

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Central drainage ditch at the Niagara Falls Storage Site, New York, FUSRAP site.

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LM FUSRAP Activities at the Former LOOW

radioactive materials that were generated during the development of the atomic bomb. After the war, the government sold the approximately 6,000 acres of the LOOW that had served as a buffer area around the plant.

The Atomic Energy Commission (AEC) replaced the MED and continued to use portions of the former LOOW to store, dispose of, and ship radioactive material. The government subsequently sold or transferred the majority of the remaining 1,500 acres to nongovernmental entities, retaining approximately 190 acres as the NFSS. The transferred parcels became known as the NFSS Vicinity Properties (VPs).

As a result of review of the NFSS and surrounding areas conducted in the 1970s and 1980s, the NFSS and associated VPs were designated for remediation under FUSRAP. DOE, which replaced the AEC in 1977, completed remediation of 23 of the 26 designated VPs prior to 1997, when FUSRAP cleanup responsibilities transferred to the U.S. Army Corps of Engineers (USACE). The USACE Buffalo, New York, District is responsible for remediating the remaining three VPs and the NFSS under FUSRAP. DOE is responsible for the long-term protectiveness of the remediated VPs and will take responsibility for the three VPs and NFSS once the remedial actions are complete.

DOE Support to USACE

In 2009, USACE informed DOE that a stakeholder asked whether a feature of the remediated VPs, the Central Drainage Ditch, posed a risk to children playing in the area. Additional inquiries were received about the protectiveness of all the remediated VPs.

DOE met with stakeholders at a USACE-sponsored public meeting and committed to evaluating the final radiological conditions of the remediated properties. This led to an ongoing interaction with stakeholders, including several additional public meetings, as DOE addressed their concerns and made site information available.

While conducting the review of site conditions, DOE found that stakeholders were also concerned about waste from the Separations Process Research Unit (SPRU) at the Knolls Atomic Power Laboratory (KAPL), Schenectady, New York, that was temporarily stored at LOOW. DOE agreed to determine if SPRU waste remained at the former LOOW that needed to be remediated. DOE reviewed records of waste characterization, historical handling locations and methods, and assessment and remediation data from DOE and USACE work.

Documentation in the DOE records collection demonstrated that FUSRAP wastes at the completed VPs were cleaned up to meet DOE guidelines for unrestricted use. DOE also concluded that the SPRU waste was remediated on the LOOW to levels that pose no unacceptable risk and allow unrestricted use and unlimited exposure.

The results of both investigations are available on the LM website at http://www.lm.doe.gov/Considered_Sites/Niagara_Falls_Vicinity_Properties_NY_-_NY_17.aspx. ✕

2011 FUSRAP Activities

DOE conducts continuous activities under FUSRAP, including responding to stakeholder requests, managing site data and information, and conducting technical reviews and evaluations of site conditions. In the following paragraphs, we'd like to share some of the highlights from 2011.

New Brunswick, New Jersey, Site—

From 1948 to 1977, the Manhattan Engineer District and the Atomic Energy Commission operated the New Brunswick Site as a general nuclear chemistry laboratory. Remediation was completed under FUSRAP in 2006. DOE applied an excavation restriction to this property in an area where arsenic levels in soil exceed State standards. In 2009, DOE investigated a sanitary sewer at the State's request and found no radiological contamination above background levels. In 2011, the New Jersey Department of Environmental Protection determined that remediation was complete at this site. This action allowed DOE to finalize the sale of the property to a private owner for redevelopment. In August 2011 DOE conducted the required biennial site inspection to confirm that the restricted area has not been disturbed.



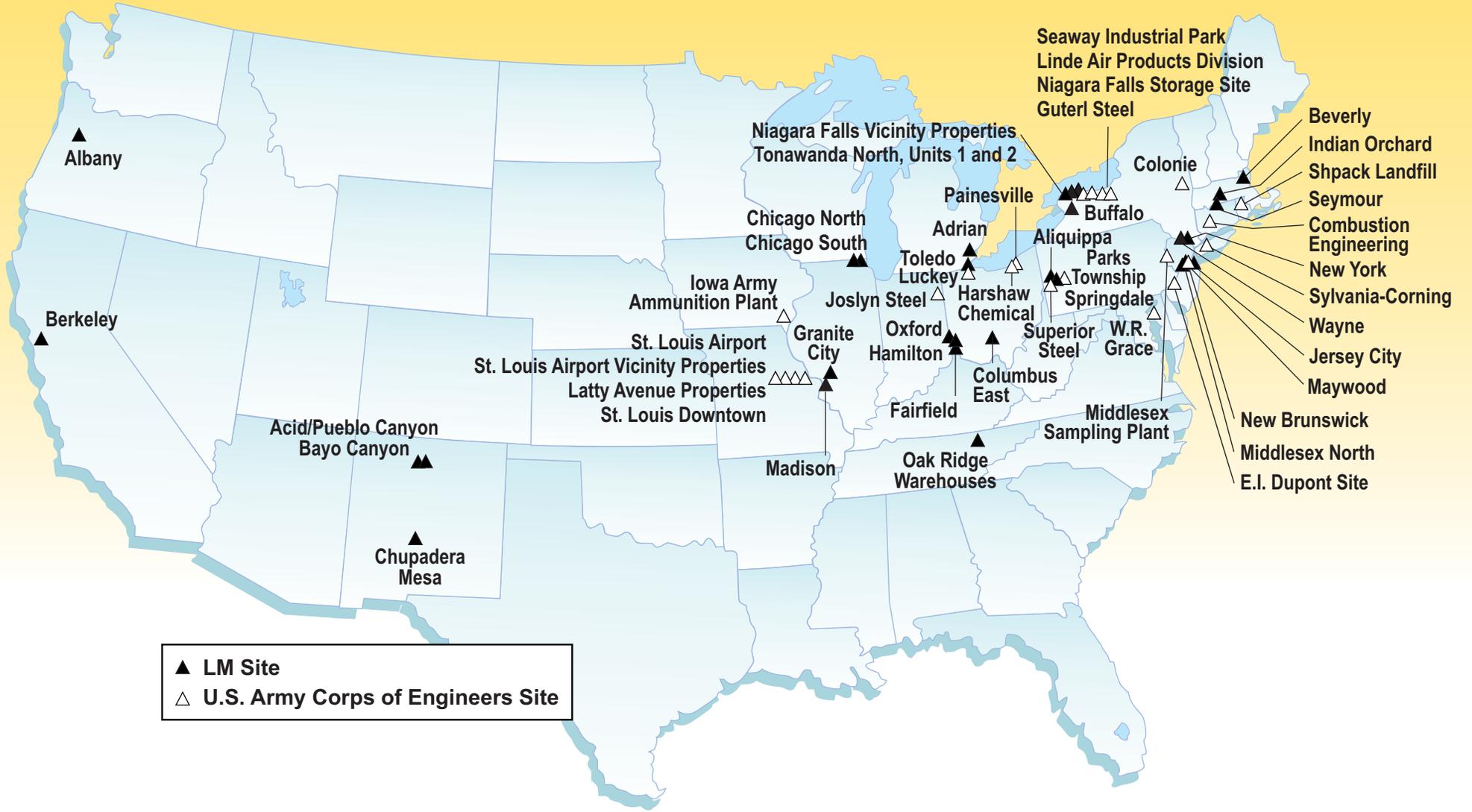
The New Brunswick, New Jersey, Site, former location of the New Brunswick Laboratory, August 2011.



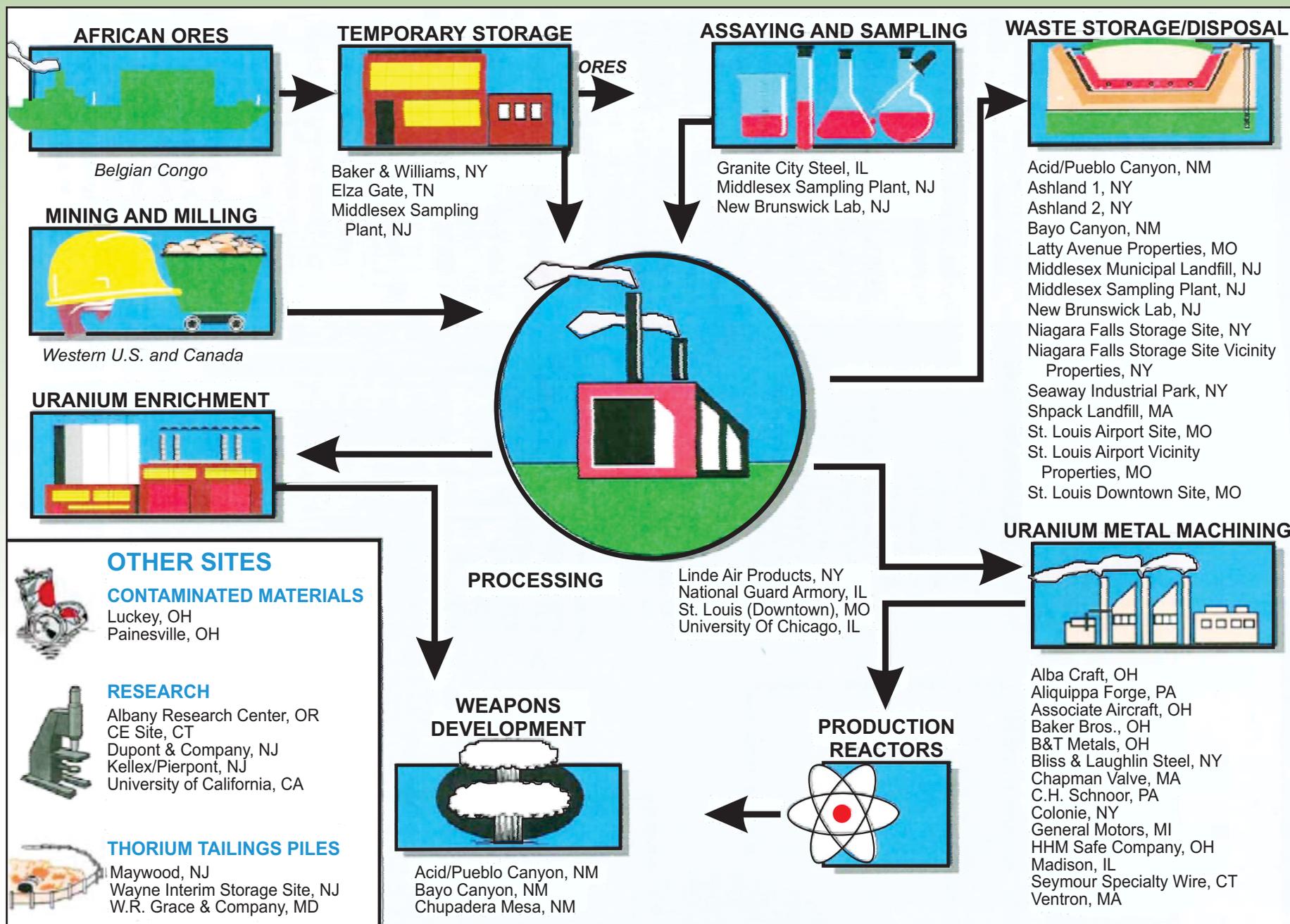
DOE investigated a sanitary sewer for radiological contamination to demonstrate that no further remediation is required at the site.

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FUSRAP Sites



FUSRAP Process Flow Diagram



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Program Information

DOE LTS&M activities are designed to ensure that FUSRAP sites remain protective of human health and the environment and to preserve knowledge regarding FUSRAP sites. Additional elements include performing eligibility determinations, transition of remediated sites from USACE to DOE, LTS&M operations such as inspections and institutional controls management, stakeholder support, preservation of records, and real property and beneficial reuse. DOE maintains close coordination with USACE and regulators to ensure there is no loss of protectiveness when sites transition to DOE for LTS&M. 🌱

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2011 FUSRAP Activities

Staten Island, New York, Site—The Archer-Daniels Midland Company owned and operated a warehouse where high-grade uranium ore from the Belgian Congo was stored from 1939 to 1942. The Manhattan Engineer District purchased the uranium in the ore and transported the ore from the warehouse to various sites for storage and processing.

The U.S. Environmental Protection Agency, the New York State Department of Health, and the New York City Department of Health requested that DOE review the previous determination that uranium ore residuals on the site were not eligible for remediation under FUSRAP. DOE reviewed the eligibility determination with support of General Counsel, and found that contamination on the northeast portion of the site is eligible for remediation under FUSRAP on the basis of maritime law that established possession and responsibility for cargo during shipment. DOE referred the site to USACE for assessment and, if necessary, remedial action.

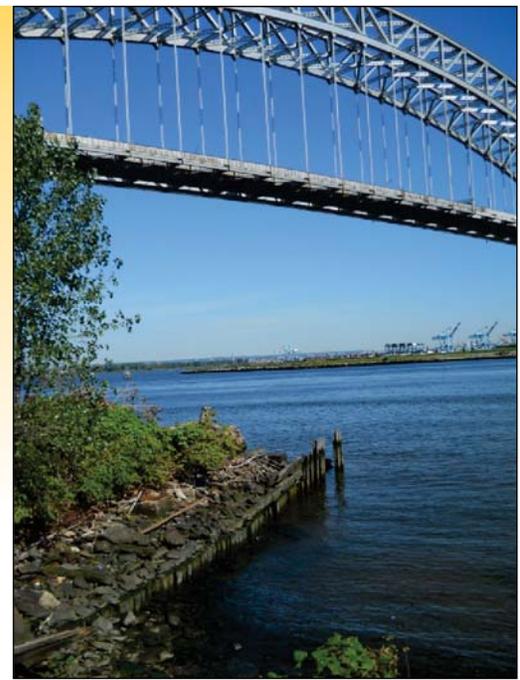
Maywood, New Jersey, Site—The Maywood site was a thorium processing facility. DOE acquired a portion of the original site to temporarily store radioactive waste removed from nearby vicinity properties.

DOE found out that the draft Record of Decision was available for stakeholder comment. DOE submitted comments on aspects of the remedy that would affect LTS&M, to which USACE responded in the Responsiveness Summary. DOE visited the site in August 2011, and was shown remediated areas and where additional remediation will occur.

Colonie, New York, Site—The Colonie site was used for electroplating and manufacturing various components containing uranium and thorium, resulting in radioactive contamination of site buildings, portions of the grounds, and 56 commercial and residential vicinity properties. DOE acquired the site in 1984 and used it for temporary storage of waste remediated from 53 vicinity properties and the on-site buildings. In 1997, USACE assumed responsibility for the remaining cleanup activities at the site.

The New York Department of Health requested DOE respond to reports of depleted uranium dust in inaccessible locations in structures on vicinity properties. USACE, which is responsible for remediation of the site, conducted confirmatory sampling and is coordinating a risk assessment based on the results.

St. Louis, Missouri, Sites—DOE staff met with State of Missouri regulators to discuss coordination for transition and LTS&M. USACE plans to transition the four sites (St. Louis Airport, St. Louis Airport Vicinity Properties, Latty Avenue Properties, and St. Louis Downtown) in 2016. The remedies will include institutional controls applied to contamination left beneath roads and around utilities. LTS&M will require a local response capability for when contaminated materials are encountered as a result of planned or unplanned maintenance work.



The site of the former warehouse where Belgian Congo uranium ore was stored in the early 1940s – August 2011.



Soil removal and remediation at the USACE Maywood, New Jersey, FUSRAP site.



Site conditions at the Colonie, New York, FUSRAP site.



DOE and State regulator staff review site conditions at the remediated Latty Avenue Properties, Missouri, Site – October 2011.

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Maintaining FUSRAP Legacy Records

Maintaining legacy site records is critical for LM to meet its responsibilities under FUSRAP. Records that describe site operations, the extent of contamination, remedial action activities, final site conditions, site verification, and regulator concurrence are all critical to DOE's ability to confirm that sites were cleaned up to the appropriate standards and remain protective. DOE also relies on historical site records to determine whether a site is eligible for remedial action under FUSRAP. FUSRAP records must be preserved for use by future custodians and stakeholders.

Many FUSRAP records remain at Federal Records Centers or National Archives repositories operated by the National Archives and Records Administration. Other records are in archives at major DOE facilities, such as the Legacy Management Business Center (LMBC) in Morgantown, West Virginia. LM is continuing to verify the location of FUSRAP site records, obtain custody of records that are crucial to maintaining site protectiveness, and enter index (metadata) information into LM records collections. A finding aid for FUSRAP, *FUSRAP Historical Record: Collections, Contents, Access, Custody, and Finding Aid*, was finalized in 2010 for internal use by DOE staff to locate records.

DOE provides information to the public on the legacy sites that were evaluated to determine whether they were eligible for remediation under FUSRAP and for remediated FUSRAP sites. The Considered Sites database, available on the LM website at <http://www.lm.doe.gov/default.aspx?id=2602>, presents the results of eligibility evaluations for the approximately 600 candidate FUSRAP sites. It contains documentation that supports the eligibility decisions, as well as cleanup and site closure documentation for the 30 remediated sites. In 2011, DOE reviewed the database and added additional documents for the remediated FUSRAP sites.

Recent records acquisitions include the Oak Ridge Associated Universities collection. Approximately 26 cubic feet of verification and assessment case files were acquired by DOE, indexed, and stored at the LMBC in 2011.

During a 2011 visit to the Oak Ridge National Laboratory (ORNL) in Tennessee, FUSRAP project staff identified about 16 cubic feet of FUSRAP materials in the lab's collection. DOE incorporated an index for this collection into the FUSRAP finding aid. ORNL will retain their records at their facility and DOE will add copies of records that are determined to be important to the FUSRAP collection.

Additional DOE Office of Environmental Management records have been acquired and are scheduled to be transferred to the LMBC. ✨



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2011 FUSRAP Activities

Site Visits

During 2011, DOE visited these FUSRAP sites to determine if land use had changed from baseline conditions: New Brunswick and Middlesex North, New Jersey, and the Oak Ridge, Tennessee, Warehouses site. DOE visited these FUSRAP sites to coordinate with USACE, which is remediating these sites: Middlesex Sampling Plant, and Maywood, New Jersey; Staten Island and Hicksville, New York; St. Louis Airport, St. Louis Airport vicinity properties, Latty Avenue Properties, and St. Louis Downtown, Missouri. ✨

DOE provides the following FUSRAP information to the public at <http://www.lm.doe.gov/default.aspx?id=866>.

- Webpages for completed LTS&M information on DOE FUSRAP sites
- Links to websites for active USACE FUSRAP sites
- Considered Sites Database: eligibility information on sites considered for inclusion into FUSRAP
- Program information, such as the 1999 Memorandum of Understanding

Stakeholders may request specific information or comment on DOE FUSRAP activities by e-mailing fusrapinfo@lm.doe.gov.