



**US Army Corps
of Engineers®**

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BUILDING STRONG®

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM UPDATE

INTRODUCTION

The Formerly Utilized Sites Remedial Action Program Update provides information about the progress the U.S. Army Corps of Engineers is making in cleaning up sites contaminated from work related to the nation's early atomic weapons and energy programs.

FUSRAP focuses on protecting human health, public safety and the environment. To ensure these sites are safe for appropriate future use, public safety is emphasized while investigating and conducting radiological cleanups.

The Atomic Energy Commission (AEC), predecessor to the Department of Energy (DOE), created FUSRAP in March 1974 to identify, investigate and take appropriate cleanup action at sites contaminated with low-level radioactive materials.

In October 1997, Congress transferred the execution and administration of the FUSRAP cleanup projects to the Corps. The Corps continues the cleanups the DOE began, and also, cleans up additional sites identified by Congress or designated into the program by the DOE. When cleaning up the sites, the Corps conducts its work in accordance with federal laws, which require the Corps to follow the framework of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA). The Corps coordinates its cleanup activities with the U.S. Environmental Protection Agency and/or state regulators on all sites.

The public is a vital partner in the FUSRAP effort. The Corps has an active public involvement program and encourages people living near the sites to participate in the cleanup activities.

While the DOE retains responsibility for FUSRAP, the Corps implements the program under a Corps/DOE Memorandum of Understanding. Using historical evaluations of site activities, the DOE determines site

eligibility for the program, referring eligible sites to the Corps for further evaluation. The Corps' evaluation consists of a CERCLA preliminary assessment (sometimes including a site inspection) and a preliminary legal analysis of government responsibility at the site. Depending upon the results of the Corps' evaluation, the Corps may designate a site for further response action, based on CERCLA requirements.

Two years after completing response actions and final closeout activities at a site, the Corps transfers responsibility for long-term stewardship, if needed, back to DOE.

The program currently includes 23 active sites in 10 states. Each FUSRAP site may include multiple operable units with multiples phases ongoing depending upon the work being done at each operable unit. The two Ashland Sites in Tonawanda, N.Y., (Ashland 1, which includes Seaway Area D and Rattlesnake Creek, and Ashland 2) were transitioned back to the DOE in 2008. This year, a new site, Joslyn Manufacturing in Fort Wayne, Ind., is being added to the program.

Seven Corps districts work on FUSRAP sites: Baltimore, Buffalo, Philadelphia, Pittsburgh, New England, New York and St. Louis. The Corps' Environmental and Munitions Center of Expertise and the Kansas City District also provide program assistance.

Program funding has been relatively level between \$130 million and \$140 million a year since the Corps began administering FUSRAP. The FUSRAP budget for this year, fiscal year 2009, is \$140 million. Progress and the schedule for each site depend upon the level of funding provided.

FUSRAP also received \$100 million in American Recovery and Reinvestment Act funding. This money was allocated to 10 projects in six states. More information on the ARRA-funded projects can be found at www.usace.army.mil/recovery.

More FUSRAP information can be found at: https://environment.usace.army.mil/what_we_do/fusrap/

SITE UPDATES

Combustion Engineering Site, *Windsor, Conn.*

In 2008 the New England District continued to monitor the Nuclear Regulatory Commission's (NRC) ongoing review of Combustion Engineering's decommissioning plan. The company now is responsible for addressing any FUSRAP-related waste as part of its site decommissioning efforts under a 2007 agreement between the Corps of Engineers and NRC.

During this fiscal year, the district is using its funding to monitor the company's actions. Once the company completes its site decommissioning, the district will review the decommissioning documents to ensure all FUSRAP issues have been addressed and then will remove the site from the active FUSRAP list.

Iowa Army Ammunition Plant, *Middletown, Iowa*

In fiscal year 2008, the St. Louis District completed the remedial investigation report for this 19,000-acre site near Burlington in southeastern Iowa. In addition, it completed the remedial design/remedial action work plan for West Bum Pads South and Line I.

This year, fiscal year 2009, the district will issue a draft feasibility study for regulator review. The district initiated remediation of the West Bum Pads South area and Line 1 and properly disposed of 5,000 cubic yards of contaminated material in an on-site landfill. An additional 15,000 yards of polycyclic aromatic hydrocarbon-contaminated material were excavated and are being shipped to an off-site disposal facility.

In FY 2010, the district will finalize the feasibility study for the FUSRAP sites at the Plant and continue the remediation of the West Bum Pads South area and Line 1.

W.R. Grace Site, *Baltimore*

In April 2008, Baltimore District and Department of Justice entered into a Site-Wide Settlement Agreement with the site owner through the District of Delaware, Bankruptcy Court. The agreement states that financial liability shall be shared between the site owner and the Government in a 40/60 split. The site owner will have the

site lead to contract, manage and direct the site cleanup according to the final Record of Decision for Building 23 and with the ROD for Radioactive Waste Disposal Area when it is completed by Baltimore District in 2010.

This year, the district plans to complete the proposed plan for the disposal area. For Building 23, the district also will review and comment on any work plans, documents and invoices submitted by the site owner under the Settlement Agreement. The district also will conduct site visits during the field work as necessary.

Plans for 2010 call for completing the Record of Decision for the disposal area and to continue providing review and oversight of any activities for Building 23 conducted by the site owner under the Settlement Agreement.

Shpack Landfill, *Norton/Attleboro, Mass.*

In fiscal year 2008, the New England District continued to remove radioactive waste material from the Shpack Landfill Site, an eight-acre abandoned domestic and industrial landfill. The total amount of processed waste shipped off site to Energy Solutions in Utah through the end of FY 2008 was 8,657.5 cubic yards.

Fiscal year 2009 funding is being used to continue remediation activities at the site. Through July, an additional 8,133 cubic yards was shipped offsite bringing the project total to 16,790.5 cubic yards. The remedial action is now scheduled for completion in fiscal year 2010.

North St. Louis County Sites, *St. Louis*

In fiscal year 2008, St. Louis District continued remedial activity and documentation for the three sites that comprise the North County St. Louis Sites: St. Louis Airport Site, St. Louis Airport Site Vicinity Properties, and the Latty Avenue Properties/Hazelwood Interim Storage Site.

At the St. Louis Airport Site, where remedial activity was completed in 2007 with a total of 621,534 cubic yards of contaminated soil shipped from the site, the Post Remedial Action Report was initiated and sent to the U. S. Environmental Protection Agency and the State of Missouri for review. In 2008, post-remedial action ground-water monitor and long-term management activities continued. In 2009, the post remedial action report was finalized with ground-water monitoring and long-term management activities continuing.



In 2008, at the St. Louis Airport Site Vicinity Properties, the district completed a design for one vicinity property, initiated designs for three additional properties, and completed three pre-design investigation plans. The district also completed cleaning up five properties and shipped more than 2,000 cubic yards of contaminated soil. Finally, the district completed the PreDesign Investigation Report/Final Status Survey Evaluation reports for nine St. Louis Airport Site Vicinity Properties, returning the properties to the owners for unrestricted use. In 2009, the district was initiating designs for 11 vicinity properties, beginning remediation of six vicinity properties, issuing reports and survey for 11 properties and initiating the post remedial action report for two properties. It is expected that 2,000 cubic yards of contaminated soil will be removed and shipped off site for disposal.

At the Latty Avenue Properties site, the district removed 32,000 cubic yards of contaminated material from the Hazelwood Interim Storage Site/FUTURA Coatings property and 15,000 cubic yards from one additional vicinity property. In 2009, the district was initiating the design for one vicinity property and beginning the post remedial action report for another. Remedial activity was continuing at Hazelwood Interim Storage Site/Futura, where an additional 35,000 yards of contaminated material is expected to be removed.

**St. Louis Downtown Site,
St. Louis**

In accordance with the record of decision, in 2008 St. Louis District began the response action for the Mallinckrodt Plant 6 West area and completed remedial activity for three vicinity properties. St. Louis District removed more than 22,000 cubic yards of contaminated



Heavy pile-driving equipment initiates the sheet pile protection for the St. Louis City Vicinity Property at the St. Louis Downtown Site location.

soils and initiated the remedial investigation sampling plan for the inaccessible soils operable unit at the downtown site.

In FY 2009, the district is completing the inaccessible soils operable unit sampling plan and continuing the remedial investigation field work. Remedial activity continues for Plant 6W and two St. Louis Downtown Site vicinity properties, with 14,000 cubic yards of contaminated soil expected to be removed.

Fiscal year 2010 funding will be used to complete the Remedial Investigation for the inaccessible soils operable unit as well as for completion of the remediation of Plant 6W and a St. Louis Downtown Site vicinity property.

**DuPont Chambers Works,
Deepwater, N.J.**

In 2008, Philadelphia District prepared the site wide Remedial Investigation and Risk Assessment Reports for this 750-acre active chemical plant on the southeastern shore of the Delaware River.

This year, the district completed the Remedial Investigation and Risk Assessment Reports for regulator review and comment, and is initiating a site wide feasibility study.

During 2010, the district will complete the site wide Feasibility Study and begin working on the proposed plan.

**Maywood Chemical Superfund Site,
Maywood, N.J.**

A combination of many privately and government-owned properties, this site is listed on the National Priorities List. New York District used its 2008 funding to continue remedial action for the remainder of the soils at the site and to develop the ground-water feasibility study and proposed plan.

This year, the district is working three different actions: continuing the remedial action for the soils under the record of decision, completing the feasibility study and proposed plan, and initiating the ground-water record of decision. American Recovery and Reinvestment Act funding has accelerated work in support of proposed infrastructure improvements and to complete the remediation of two NRC-licensed burial pits. The district plans to complete the ground-water record of decision and continue the soils remedial action in fiscal year 2010.



Radiation technicians provide support during the removal of sheet pile used at this Maywood, N.J., vicinity property.

**Middlesex Sampling Plant,
Middlesex, N.J.**

In 2008, New York District completed the soils remediation and continued the ground-water feasibility study and proposed plan for this federal government-owned site, which is listed on the National Priorities List.

This year, the district is completing the ground-water feasibility study and proposed plan as well as beginning work on the ground-water record of decision. Additionally, the district is working with EPA Region 2 to develop a federal facilities agreement for the work at the site. It expects to use fiscal year 2010 funding to complete the ground-water record of decision.

**Colonie Site,
Colonie, N. Y.**

At the former National Lead Industries site, now called the Colonie Site, New York District used fiscal year 2008 funding to complete the removal action under the revised action memorandum and prepare a draft ground-water feasibility study and proposed remedial action plan for the main site. In 2009, the district is completing the ground-water feasibility study and proposed remedial action plan, and preparing a ground-water record of decision.

The district plans to use fiscal year 2010 funding to complete the ground-water record of decision.

**Sylvania Corning Plant,
Hicksville, N. Y.**

A relatively new addition to FUSRAP, the Sylvania Corning Plant sits atop 10.5 acres divided into three separate properties. The facility was used for two distinct, but similar operations. From 1952 to 1965, the facility operated under contracts with the Atomic Energy Commission for research, development and production primarily in support of the government's nuclear weapons program. From 1952 to 1967, a second operation concentrated on AEC-licensed work primarily for the production of reactor fuel, and other reactor core components.

New York District used fiscal year 2008 funding to continue a remedial investigation and baseline risk assessment and to coordinate with stakeholders. These initiatives are continuing this year, with completion of both the remedial investigation and baseline risk assessment set for fiscal year 2010.

**Ashland Sites,
Tonawanda, N. Y.**

The Ashland Sites consists of the Ashland 1 Site, which includes Seaway Area D and Rattlesnake Creek, and the Ashland 2 Site, all in the Town of Tonawanda, N.Y. These two sites were contaminated with low-level radiological material, including thorium, radium and uranium. With cleanup work completed, Buffalo District continued to close out the sites in 2007 so it could turn them over to the Department of Energy for long-term stewardship. The district also continued to support the Department of Justice in its potentially responsible party cost-recovery activities. With the cost recovery action completed, the district returned these sites to the Department of Energy on Oct. 31, 2008.

**Seaway Industrial Park,
Tonawanda, N. Y.**

A closed sanitary landfill, the Seaway Industrial Park is a privately owned 93-acre site, located three miles north of Buffalo. The site became contaminated with FUSRAP-related materials during the 1970's when material that originated from the processing activities conducted by Linde under the Manhattan Engineer District contract that had been disposed of at the FUSRAP Ashland 1 Site was relocated for site renovations. As a result of remediation of the sites adjacent to Seaway (Ashland



1 and 2), two additional areas of contamination along the Seaway property (Seaway Southside and Seaway Northside) were identified.

In 2008, the Buffalo District completed the Feasibility Study Addendum and the Proposed Plan for the Seaway Site, which described the Preferred Alternative for site remediation, and released it for public review and comment in late August 2008, with the public comment period ending in late November 2008. In 2009 Buffalo District is evaluating the comments submitted on the Proposed Plan and preparing the Record of Decision, which is scheduled for completion this fall. In 2010 the district will initiate preparation of the scope of work for remediation and continue site coordination activities.

Former Linde Air Products, Tonawanda, N. Y.

The Linde site, located in Tonawanda, a suburb north of Buffalo, has two distinct areas. The first is the original Linde Site that is now owned and occupied by Praxair, Inc., and the second is a designated vicinity property, the Tonawanda Landfill and Mudflats area located about 1.5 miles north of Praxair.

The Buffalo District used fiscal year 2008 funding to continue remedial action at the Linde/Praxair facility in accordance with a Record of Decision, signed in 2000. To date, the Corps has safely removed and disposed of more than 338,800 tons of contaminated materials from the Linde Site to legally permitted disposal facilities. In 2009 and 2010 the district will continue the soils remedial action with the available funding.

Linde's Tonawanda Landfill Vicinity Property consists of two operable units: the Tonawanda Landfill Operable Unit and the Mudflats Operable Unit. Based on the public comments received on the proposed plan for the Tonawanda Landfill Vicinity Property, the Buffalo District intends to conduct additional evaluations of the Tonawanda Landfill Operable Unit to include additional sampling and a re-evaluation of the Baseline Risk Assessment to confirm if a hazard to human health and the environment exists that would require action under CERCLA. In 2009 the district is preparing a scope of work and awarding a contract for additional sampling in the Landfill Operable Unit. In 2010 Buffalo District will complete the additional sampling in the Landfill Operable Unit and update the Baseline Risk Assessment.

In 2008 Buffalo District completed a record of decision for the Mudflats Operable Unit, documenting that no action is necessary under FUSRAP for the Mudflats Operable Unit.

Niagara Falls Storage Site, Lewiston, N. Y.

In fiscal year 2008, Buffalo District finalized the remedial investigation report for this 191-acre federally owned site, 19 miles northwest of Buffalo, N.Y. It also continued to make progress on the feasibility study, perform the yearly site maintenance, monitoring and surveillance activities, as well as community involvement efforts.

This year, the district plans to develop the scope of work to gather any additional information required to respond to comments on the remedial investigation and prepare an addendum to the remedial investigation report. The district also is continuing the feasibility study in addition to conducting yearly site maintenance, monitoring and surveillance activities to assure integrity of the waste-containment repository. Public involvement activities will continue as well.

In 2010, the district expects to draft the addendum to the remedial investigation report and continue the feasibility study as well as the maintenance, monitoring, surveillance and community involvement activities.



A television news reporter learns more about the environmental surveillance program at the Niagara Falls Storage Site during a site tour.

Guterl Specialty Steel, Lockport, N. Y.

The former Guterl Specialty Steel site, also known as Simonds Saw and Steel Corporation, encompasses about 70 acres in Lockport, NY., about 20 miles north of Buffalo. Buffalo District used fiscal year 2008 funding to continue the remedial investigation of the site. The district mobilized an investigation team to the area for more than six months to perform field sampling and data

collection activities that will be used to define the nature and extent of radiological contamination that resulted from past government contract actions.

During 2009, the district is evaluating analytical data necessary to prepare a geologic model, a fate, transport and exposure assessment, and a baseline risk analysis, as well as complete the remedial investigation report. In 2010, the district will initiate the feasibility study.

Harshaw Chemical Company, Cleveland

In 2008 the Buffalo District conducted Phase IV Remedial Investigation sampling at this privately owned 55-acre site along the Cuyahoga River, three miles south of downtown Cleveland.

This year, the district plans to complete a revised Remedial Investigation Report necessitated by the identification of additional FUSRAP-related contaminants at the site. Buffalo District also will complete the Proposed Plan for Investigative Area 06.

In fiscal year 2010, plans call for initiating the feasibility study, releasing the Proposed Plan for Investigative Area 06 for public review and comment, and initiating the Record of Decision for Investigative Area 06.

Luckey Site, Luckey, Ohio

This year Buffalo District conducted a cost and schedule risk analysis for the Luckey Site, initiated a sampling effort to refine the contaminated soil volume estimate, and evaluated techniques for the field screening of beryllium. Buffalo District also will conduct the annual ground-water sampling at this privately owned 40-acre site southeast of Toledo, Ohio.

In 2008, the district completed the record of design for the ground-water operable unit and conducted annual ground-water sampling. Fiscal year 2010 funding will be used to initiate remedial design for the soils and ground-water operable units and to conduct the annual ground-water sampling.

Painesville Site, Painesville, Ohio

In 2008 Buffalo District continued site remediation at this privately owned 30-acre site 22 miles northeast of Cleveland. To date, approximately 9,400 cubic yards of contaminated soil have been excavated at the site. However, during site remediation, the district discovered a significant amount of additional contaminated soil, which exceeded the quantity that could be removed with the available project funding. Excavation activities were temporarily halted in 2008 to secure additional funding to complete the site remediation.

In 2009 the Buffalo District is conducting additional site sampling and evaluations of the remaining contaminated soil volume requiring remediation, and preparing a scope of work for the remaining remediation. Site remediation is scheduled to resume in fiscal year 2010.



Waste containment bags are loaded onto railcars at the Painesville site near Cleveland.

Shallow Land Disposal Area, Parks Township, Pa.

Pittsburgh District continued with the preparation of remediation work plans and initiated the Final Status Survey Plan at this 44-acre site, northeast of Pittsburgh, in 2008.

The district will complete the remediation work plans and the Final Status Survey Plan this year and expects to begin site remediation this fall.



FUSRAP UPDATE

Superior Steel, Carnegie, Pa.

The former Superior Steel site in Scott Township, near Carnegie, Pa., was included as an active FUSRAP site in fiscal year 2008. This year, Buffalo District coordinated with regulators. In 2010, the district will initiate preparation of a scope of work for a remedial investigation.

Potential New Sites

The Department of Energy considered several hundred sites in the public and private sectors with the potential for residual radioactive contamination as a consequence of work done in support of nuclear energy technology development. Of these sites, DOE designated a limited number for cleanup under FUSRAP and eliminated the others from further consideration at that time. However, new information does become available, and when that happens, DOE notifies the Corps of that information changing the status of eliminated sites to eligible according to FUSRAP criteria.

The Corps completed its preliminary assessment and site inspection of the former Joslyn Manufacturing and Supply Company in Fort Wayne, Ind., and recommended this site be included in FUSRAP. Joslyn was formally added as an active FUSRAP site this year. Buffalo District will be responsible for the cleanup at this site.

The DOE notified the Corps this year that new information regarding the Middlesex Municipal Landfill in Middlesex, N.J., may indicate that additional cleanup work is required at this site. New York District is beginning the preliminary site assessment this year.

The Formerly Utilized Sites Remedial Action Program Update is published by the U.S. Army Corps of Engineers in accordance with U.S. House of Representatives Report 107-112, dated 26 June 2001, to accompany the Energy and Water Development Appropriations Act 2002, Public Law 107-66. For more information, call 202-528-4285, or e-mail candice.s.walters@usace.army.mil.

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Headquarters, U.S. Army Corps of Engineers

Attn: Public Affairs Office
441 G Street NW
Washington, DC 20314

