

The St. Louis Sites

Formerly Utilized Sites Remedial Action Program • Fall 2002

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www.mvs.usace.army.mil

A Year In Review

The federal government began a new fiscal year on October 1st, 2002. At this time each year the U.S. Army Corps of Engineers (USACE) team pauses to reflect on what was accomplished and what remains. The highlights of our observations follow.

Last October, the team set a goal to remove 70,700 cubic yards of contaminated soils from the St. Louis FUSRAP Sites. Instead, we excavated and disposed of 92,958 cubic yards of contaminated materials —more than any previous year!

We prepared for future cleanup actions by working to define the extent of radiological contamination on 36 properties (7 at the Downtown Site and 29 in North County). This information led to the development of designs and reports that will direct future cleanup activities. In addition to these planned activities, the team also responded to 20 requests from private interests for radiological support during subsurface work on impacted properties.

Our achievements were not limited to fieldwork. We transferred long-term stewardship responsibilities (consisting of records management) for the Madison Site in Madison, Illinois to the Department of Energy. We held a public workshop on a series of environmental



Soil removal is just one of the team's many achievements pushing the project to its ultimate goal, complete cleanup of the FUSRAP St. Louis Sites.

and legal topics affecting site work to facilitate the review of the North County Feasibility Study and Proposed Plan. Moreover, the team made technological advances to better treat selenium found in contaminated water encountered during the excavation at the St. Louis Airport Site (SLAPS).

So where will we go from here?

Our ultimate purpose in working on these sites is to complete the cleanup of radioactive contamination left behind by the Manhattan Project. To do that, we've set two goals for fiscal year 2003: 1) to remove 88,000 cubic yards from the St. Louis Sites; and 2) to issue the North County Feasibility Study and Proposed Plan.

At the St. Louis Downtown Site (SLDS), the team plans to remove 13,000 cubic yards of contaminated material. This will include the completion of remedial activities at the Mallinckrodt Plant 6 East Half and two vicinity properties, as well as initiate the cleanup of Plant 7E at Mallinckrodt.

Upcoming Events

Information Releases:

Winter Newsletter - February 2003


Upcoming Meetings:

St. Louis Oversight Committee Meetings at the FUSRAP Project Office at 11:30 a.m. on December 13th, January 10th, and February 14th. Please come if you are available!



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In North County, we expect to remove 75,000 cubic yards of material under the 1998 SLAPS Engineering Evaluation/Cost Analysis document. Work will consist of completing cleanup of the central portion of SLAPS identified as Phase 1 and the ditch to the north, and begin work in the northwestern portion of the site (identified as Phase 2).

The Vicinity Properties and the Hazelwood Interim Storage Site have not been left out. Efforts to characterize the extent of contamination at these sites will continue. Removal of contamination on these properties will occur after a final cleanup remedy is selected. 

St. Louis Downtown Site (SLDS)

Mallinckrodt Cleanup Progresses

Cleanup activities are progressing in the Mallinckrodt portion of the St. Louis Downtown Site (SLDS). Under the approved 1998 SLDS Record of Decision (ROD) for accessible soils, remedial activities at the Mallinckrodt facility have addressed 33,800 cubic yards of contaminated material.

The USACE is investigating newly accessible areas within Plant 1 in support of Mallinckrodt's recent plans to demolish several structures in Plant 1. Since the foundations of these buildings are not believed to cover contamination, the USACE has arranged to assess the underlying soils once the buildings are demolished and the debris is removed. This confirmation effort is scheduled for completion in December 2002.

Within the Plant 6 East Half work area, cleanup activities are continuing. Approximately 20,000 cubic yards of contaminated material has been shipped to out-of-state disposal facilities from the work area. The USACE anticipates removing a total 27,000 cubic yards of contaminated material from Plant 6 East Half before completing cleanup of this work area in early 2003.

Vicinity Property Cleanup Underway

Although the work may not be as visible as within the Mallinckrodt facility, remedial efforts are also continuing on the surrounding properties. Under the 1998 SLDS ROD, the vicinity properties are being studied to assure that any FUSRAP-related contamination is addressed.

Soil borings, which assist in defining the extent of contamination on a property, are being collected. Borings have been collected from most of the known impacted properties south of the Mallinckrodt facility.




Accurately placed soil borings assist with ensuring the cleanup criteria specified in the approved environmental documents are met.

More recently, crews have begun collecting borings from properties north of the facility.

Meanwhile, excavation activities are winding down at DT-7, the first privately owned vicinity property to be remediated under the SLDS Record of Decision. An estimated 4,500 cubic yards of contaminated soils have been removed from the property, located south of Mallinckrodt along Angelrodt Street. The remediation of this property is expected to be complete in December 2002.

What's Next?

The remediation of DT-7 is expected to be complete in December 2002 while remedial activities in the Plant 6 East Half will continue through 2003. 

St. Louis Airport Site (SLAPS)

Phase 1 Removal Continues

Cleanup activities at the St. Louis Airport Site (SLAPS) Phase 1 work area are continuing. The Phase 1 work area consists of a 2.3-acre block of contaminated soils in the central portion of SLAPS.

The USACE subdivided the work area into five smaller units, each of which encompasses roughly one-half acre. Breaking the work area into smaller pieces makes water management during excavation easier. It also helps prevent storm-water runoff from transporting contaminated sediments to clean areas. As of November, crews have finished three of the five units and are working on the remaining two as they work their way to the west across the site.

Under the approved 1998 SLAPS Engineering Evaluation/Cost Analysis, 63,000 cubic yards of contaminated soil have been shipped to an out-of-state disposal facility from the Phase 1 work area. The USACE anticipates finishing the 75,000 cubic yard Phase 1 excavation in December 2002.

Water Treatment Advances

Efforts by the FUSRAP team to improve its onsite water treatment facility have paid off. Since runoff from open construction sites can have a significant impact on water quality, crews carefully check excavation water before releasing it from the site to ensure it will meet discharge criteria and not adversely affect local water bodies.

During construction activities, water periodically collects on the excavation floor. This water is pumped to onsite holding tanks and tested for a number of pollutants. These pollutants include radionuclides (such as uranium) and inorganics (such as selenium).



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Selenium, which is a type of metal pollutant, was present in excavation water above allowable discharge limits.

For the past year, the team has been working to improve the treatment facility to enable it to address the selenium-contaminated water held

Keeping in Touch

Mailing Lists - To receive newsletters and other printed communications, sign up for our mailing list anytime.

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Public Speaking - If your group, school, or association would like to hear from one of our experts, give us a call. We can speak on a variety of fields, including engineering, the environment, and geology.

Homepage - To reach our site, set your browser to www.mvs.usace.army.mil and select District Projects.

If you have any suggestions, questions, or comments, contact our office anytime.

onsite. They developed a bioremediation process that uses bacteria to successfully reduce selenium, reduce interfering nitrates, and separate uranium from the water. As of mid-November, the USACE has been able to safely dispose of 132,000 gallons of accumulated excavation water using the new treatment process.

SLAPS Ditches Planned

Last winter, crews removed contaminated soils from the eastern portion of the drainage ditch between McDonnell Boulevard and SLAPS. The work was performed as part of the effort to cleanup the East End Extension under the approved 1998 SLAPS Engineering Evaluation/ Cost Analysis document.

Approximately 1,000 cubic yards of contaminated soil have been shipped to out-of-state disposal facilities from the drainage ditch. The USACE chose to delay work on the remainder of the ditch last spring to minimize potential sediment migration issues during the wet season, which runs from late-March to early-June.

An estimated 9,000 cubic yards of contaminated soil await removal from the western half of the drainage ditch, which extends from the former Radium Pits to Coldwater Creek. Excavation work will begin upon completion of Phase 1.


What's Next?

Crews will work to finish the cleanup of the Phase 1 work area so that work may begin on the drainage ditch between McDonnell Boulevard and SLAPS in early 2003. ■

Reaching Out**Environmental Training Sessions Offered**

FUSRAP... ionizing versus non-ionizing radiation... rem and Curie... ARAR... such is the mysterious vocabulary of the people cleaning up radioactive contamination from the Manhattan Project. These and other words, phrases and concepts were the focus of the training sessions offered by the team August 13th and 20th in North County.

The USACE offered the public a two-day training session to familiarize people with technical processes and terms used to accomplish FUSRAP work. Graphics and handouts presented the fundamentals of various topics including radiation, risk assessments, risk range, cleanup, and long-term stewardship. Hands-on demonstrations reinforced the concepts of soil sampling, and surveys, while handling radiological detection equipment and instruments illustrated how fieldwork is achieved. Participants received copies of the presentations, fact sheets, and contact information for future reference.

About 50 people from widely varied backgrounds attended the two sessions. The training was limited to general information and did not identify or discuss final cleanup alternatives, which are still under development. 



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