F U S R A P U P D A T E

The St. Louis Sites

Formerly Utilized Sites Remedial Action Program • Summer 2009

(314) 260-3922 www.mvs.usace.army.mil

St. Louis Downtown Site

The FUSRAP team has been busy at the St. Louis Downtown Site (SLDS). The FUSRAP team

- completed remedial activities at the Terminal Railroad Association Vicinity Property in early June 2009. This large area in the northeast corner of SLDS included a total of 2,860 cubic yards of contaminated soil. The soil was removed and shipped to a licensed, out-of-state facility.

- continued excavation and shipping of contaminated material from Plant 6 West Half in the winter and spring of 2009. Since the fall of 2008, a total of 5,000 cubic yards of contaminated material was removed and shipped to a licensed, out-of-state facility. The U.S. Army Corps of Engineers (USACE) returned a small portion of this area to Mallinckrodt. The remaining contaminated soil, including additional licensed material excavated by Mallinckrodt, will be removed in 2010.

- is currently preparing a design change at Plant 7 North to accommodate the removal of contaminated soil beneath Mallinckrodt's Hazardous Materials Storage Area. Mallinckrodt is replacing this facility with a new one, making the contaminated soil under the old facility available for remediation beginning in the Fall 2009.

Upcoming Events

Information Releases: Winter Newsletter - December 2009
This newsletter is issued twice a year in July and December.

Upcoming Meeting (Please come if you are available!)**:**
St. Louis Oversight Committee Meeting - Date TBD, 11:30 a.m. at the FUSRAP office on Latty Avenue.

2nd 5-year Review: ongoing in 2009

Heavy pile-driving equipment is used to initiate the sheet pile protection for the City Property Vicinity Property at SLDS.

City Property Sheet Pile Installation

At the "City Property," sheet pile was installed in preparation for excavation of contaminated soil in the adjacent area. "City Property" is a large Vicinity Property of the SLDS. This portion of the property is located along Destrehan Street, east of the Burlington Northern rail line and west of the U.S. Army Corps of Engineers (USACE) Mississippi River Flood Protection Levee (Levee).

Sheet piling consists of long sheets of interlocking half-inch-thick steel. The purpose of the sheet pile is to form a wall around the excavation to keep surrounding soil from falling into the excavation. As seen in the photos, sheet pile is driven into the ground before excavation begins. The installation of sheet pile will facilitate remediation activities in this area which include the removal of approximately 5,200 cubic yards of contaminated soil, an abandoned MSD 30-inch-diameter sewer line, and nearby sewer support structures.

The installation involved driving 168 pairs of sheet pile, approximately 506 linear feet, into the ground. The pairs of sheet pile varied in height from 29 to 44 feet, depending on the specific installation location and the planned depth of excavation in that area. The excavation itself may be as deep as 30 feet in certain places.

The USACE must ensure the stability of the levee, and therefore the team installed monitoring equipment to detect soil movement in the levee during sheet pile installation and during actual soil excavation. The FUSRAP team initiated excavation activities in mid-May following completion of the sheet pile installation and after a brief delay caused by high levels of the Mississippi River.

Throughout the excavation activities, river level and levee stability will be continuously monitored to ensure that remediation is completed safely and that the St. Louis flood protection levee is not compromised. Remediation is expected to continue well into 2010.

Sheet pile protection system for the City Property excavation is shown nearing completion.

North St. Louis County Site

HISS/Futura/Norfolk Southern Properties

Remediation of the Hazelwood Interim Storage Site (HISS) and Futura Coatings Company and adjoining Norfolk Southern Railroad properties continues in 2009. During the 1960s uranium-bearing residues from St. Louis Airport Site (SLAPS) were stored and processed at the Futura and HISS properties.

Since early 2008, the FUSRAP team has remediated approximately 4 acres of the combined 11-acre Futura/HISS properties. They have excavated over 28,000 cubic yards of contaminated material and shipped it to an approved waste disposal facility. Part of the remediation process has included the partial restoration of completed areas. During remediation activities, close coordination occurs to ensure site stockpiling and rail car loading cause minimal impact to the business operations of the current tenant.

Remediation also continued on the adjoining Norfolk Southern Railroad property, which included excavation around a tributary of Coldwater Creek. After excavation of over 12,000 cubic yards of material from the area near the tributary, work was temporarily suspended due to saturated soil conditions. Remediation will resume this summer or fall during a period of drier weather.

The remediation of the Norfolk Southern area was particularly interesting from a technical standpoint. The FUSRAP team installed a temporary pump-around system in the tributary area to divert an estimated 1,500 gallons per minute of dry-weather flow around the construction area. The system included portable diesel-powered pumps, temporary piping, check dams, and scour protection.

In addition to providing easier access to the tributary area, the system eliminated any possibility of Coldwater Creek contamination by diverting flow away from the area of remediation.

SuperValu Property

A second phase of the St. Louis Airport Site Vicinity Property 38 (SLAPS VP-38) cleanup activities was completed this spring. VP-38 is an area immediately adjacent to the USACE FUSRAP office compound on SuperValu, Inc., property.

The team performed an earlier remediation phase at the location of the compound in 2000. During the current remediation, the FUSRAP team excavated and transported approximately 1,600 cubic yards of contaminated soil to an off-site disposal facility.

As part of the recent excavation, 1,000 cubic yards of clean overburden soil were removed, stockpiled, and re-used as backfill for the excavation. The remediation team screened this material during handling to verify that the soil met applicable remediation criteria.

Re-use of overburden results in significant cost savings since more expensive clean soil does not have to be purchased and imported to the site. The term 'overburden' is explained in this newsletter's Educational Information on page 4.

Hazelwood Avenue Right-of-Way

You may have noticed the signs posted on Pershall Road, Hanley Road and Hazelwood Avenue recently warning of road closures along Hazelwood Avenue. The road signs are up because the USACE started remediation along the Hazelwood Avenue Right-of-Ways (ROWs) this spring. The USACE decided to start remediation activities along the ROWs before the City of Hazelwood begins their road improvement project along Hazelwood Avenue later this year.

The City of Hazelwood received a grant from the East-West Gateway Council Transportation Improvement Program to make road improvements and widen Hazelwood Avenue from Frost Avenue to Pershall Road. The USACE has been coordinating with the City of Hazelwood to ensure the time frame of our remediation does not interfere with the road improvement project for Hazelwood Avenue.

In order to lessen the problems with the road closures, the USACE passed out announcement letters to all the businesses that use Hazelwood Avenue. For those business owners and employees that wanted to be updated on the road closures, the USACE set up an email notification list. When the road barriers are moved, all on the list are notified of the changes by email. The USACE has been working with the Hazelwood Police Department to verify that our signs are properly situated along the roads. The Hazelwood Police have increased their patrols along Hazelwood Avenue since remediation activities started.

In the 1960s, Hazelwood Avenue was used as a haul route transporting uranium-bearing residuals from the St. Louis Airport Site on McDonnell Boulevard to the Hazelwood Interim Storage Site on Latty Avenue. Contamination along Hazelwood Avenue occurred as a result of soil spillage from transport vehicles. As a result of characterization sampling and investigations along Hazelwood Avenue, twelve areas require remediation to estimated depths ranging from 1 to 3 feet below ground surface. Remedial action is currently underway with an estimated 635 cubic yards of contaminated soil to be removed.

Two large pumps divert Coldwater Creek flow around an excavation at the Norfolk Southern Vicinity Property in North County.

Ballfields Site

The remedial design effort has begun for the area north of SLAPS and McDonnell Boulevard that is commonly referred to as the Ballfields Site. Historically, the site was used as agricultural land and then as a baseball field complex. Today, the only remnants of the former baseball fields are a small building and a concrete pad, located in the center of the four fields on the eastern half of the site.

The Ballfields Site is estimated to be the largest contaminated FUSRAP North County site remaining in terms of volume. It is comprised of four contiguous properties totaling approximately 60 acres, of which about 14.4 acres contain contaminated soil. The majority of contaminated soil is located in the southwest portion of the site (near the intersection of Coldwater Creek and McDonnell Boulevard) and is covered by an average of 4.5 feet of clean overburden soil (totaling approximately 43,000 cubic yards). This overburden soil will be moved aside and stockpiled prior to the removal of the underlying contaminated soil.

Keeping in Touch

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

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Homepage - To reach our site, set your browser to www.mvs.usace.army.mil and select Centers for Expertise.

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

Educational Information

Q: What is Overburden?

A: The term 'overburden' has a unique context in FUSRAP work. Overburden refers to a layer of material, generally soil, which exists atop deeper, contaminated soil. This material may be backfill from a previous, shallower remediation, or it could have been brought to the site as part of land development by the property owner. The FUSRAP team must first excavate this top layer of material prior to removing and shipping the contaminated material off site. Because bringing clean backfill material is costly, moving the overburden aside and saving it for later reuse as backfill can result in significant cost savings. Before reusing it as backfill, FUSRAP tests the stockpiled overburden to ensure it is free from contamination.

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