North St. Louis County Sites

The U.S. Army Corps of Engineers (USACE) completed cleanup of the St. Louis Airport Site (SLAPS) in May of 2007 and immediately moved on to work at other North County locations. At the top of the list are the Hazelwood Interim Storage Site (HISS) and Futura Coatings Company (Futura) on Latty Avenue. In the past year and a half, USACE removed over 80,000 cubic yards of contaminated material from these sites and sent it to an out-of-state licensed, permitted disposal facility.

Short History of HISS/Futura

The original owners used SLAPS as a storage site for uranium ore residues and uranium- and radium-bearing process wastes. The waste and byproducts were generated at the Mallinckrodt plant from 1942 through the late 1950s. In 1966, the Continental Mining and Milling Company (CMMC) purchased and stored the waste at the present HISS/Futura site on Latty Avenue. Before shipping them for reclamation, CMMC processed the waste. As a result of this processing, the HISS/Futura site and several adjacent properties were contaminated and, consequently, required cleanup.

The U.S. Environmental Protection Agency placed the HISS/Futura site on the National Priorities List in 1989. A Record of Decision for this site and all other North St. Louis County Sites was completed in 2005.

Current HISS/Futura Remediation Activities

The St. Louis Formerly Utilized Sites Remedial Action Program (FUSRAP) team is progressing toward cleanup goals at HISS and several adjacent locations. The FUSRAP team removed 5,000 cubic yards of contaminated material from the Futura site in the summer of 2008. It was shipped out-of-state for disposal at a permitted, licensed facility. USACE also removed and decontaminated eight previously identified 4,000-gallon underground storage tanks. The tanks were returned to the property owner. Missouri Department of Natural Resources is currently working with the property owner to safely dispose of the tanks.

Current excavation work continues at HISS, moving from the northern portion of the work site toward the southern portion. Restoration work has included adding 3,200 tons of clean backfill soil to HISS. Cleanup crews excavated the southern portion of the Futura property and backfilled it with 5,000 tons of clean material.

Over 80,000 cubic yards of contaminated material have been removed from HISS and Futura since 2007 and shipped out-of-state for disposal at a permitted, licensed facility.
North County Vicinity Properties

Since the Spring 2008 newsletter, USACE has completed the remediation and restoration of several more North County Vicinity Properties:

• Since June 2008, USACE and the owner of the property, the Lambert-St. Louis International Airport have worked together on an area called IA-13. The site became an important location for all existing utility lines. Various utilities worked in cooperation in order to correctly locate and identify utility lines existing on the site. Excavating around utilities requires special care and conditions safe for utility digging. Particularly challenging was the discovery of an unexpected utility line and manhole. After much study, the owner was identified and contacted, and work was able to move forward. After re-locating a portion of the Lambert-St. Louis International Airport fence in order maintain the high security level required for the runway area, excavation work began. The excavation and removal process has thus far been successful, and Phase I is now complete.

• In other areas, Vicinity Properties (VPs) 8 and 9 are located on McDonnell Boulevard, northwest of SLAPS. VPs 8 and 9 are owned by Florissant Valley Sheltered Workshop and Ameren/UE, respectively. The cleanup crew removed about 252 cubic yards of radiologically contaminated soil to ship to an out-of-state licensed, permitted disposal facility.

• USACE completed a Pre-Design Investigation/Final Status Survey Evaluation on VPs 21, 22, 23, 24, 26, 28, 29, 30, and 31, located on Frost Ave. The final round of sampling and data evaluation determined that no excavation would be necessary at these properties. They were released for unlimited use and unrestricted exposure.

Hurricane Ike Causes Flooding in North County

Heavy rainfall resulting from Hurricane Ike caused significant flooding on September 14, 2008 at the North St. Louis County FUSRAP sites. Ike’s aftermath dumped over 4.5 inches of rainfall over a very short time span in the St. Louis area, causing Coldwater Creek to overflow its banks. At the St. Louis Airport Site, flood waters covered the western portion of the site from Entrance 2 to the Creek depositing debris but causing only minimal damage to vegetation.

Because areas upstream from Coldwater Creek are not contaminated, no radiological contamination was deposited at the Airport Site.

At HISS, the flood waters covered the majority of the site and entered the storage buildings on the east end. FUSRAP uses these buildings as temporary office space and for storage. The flooding caused extensive damage to the equipment and files stored inside the buildings. The water receded quickly, but left over one million gallons of water in a large, open excavation at the northern end of HISS. Because contaminated soil had already been removed from the area, no contamination was transferred from the excavation surface to the floodwaters.

St. Louis Downtown Site

USACE has completed several remedial actions at the St. Louis Downtown Site since the Spring 2008 newsletter.

• One area, the Terminal Railroad SoilSpoils Area on the southernmost extent of SLDS, was completed in August 2008. The cleanup crew removed a total of 166 cubic yards of contaminated soil to ship out-of-state for licensed disposal.

• Norfolk Southern Railroad Vicinity property, similarly, had 125 cubic yards of contaminated soil excavated and shipped.

• The cleanup crew completed excavation of 18,570 total cubic yards of soil at PSC Metals, a large scrap metal processor, early in 2008. The property was used throughout 2008 by FUSRAP for temporary
stockpiling material excavated from other SLDS properties. The construction crew completely removed the stockpile and restored the property in October 2008. It has now been returned to the property owner.

**Plant 6 West Half, Phase 2**

The Corps can now see the ‘light at the end of the tunnel’ in its program to remove contamination left by our country’s early efforts to develop atomic weapons. In the fall of 2007, the FUSRAP team initiated the final phase of cleanup on the western half of Mallinckrodt’s Plant 6. The cleanup of Plant 6 West Half represents one of the last remediation efforts to be undertaken by the Corps of Engineers on Mallinckrodt property.

Before remediation could begin, USACE and Mallinckrodt worked together to develop a delineation agreement for the site. This agreement established the respective cleanup responsibilities for both parties. Negotiations were necessary because contamination at the site came from both Manhattan Project activities and unrelated Mallinckrodt commercial activities. This agreement was signed in the summer of 2007.

USACE and Mallinckrodt identified and agreed on separate but closely phased cleanup efforts in order to find the most efficient overall procedure. First, the plant required numerous utility and structural modifications. The major effort involved Mallinckrodt removing a 500,000 gallon, above-ground fuel oil tank. They also relocated utility lines from two buildings on the site and moved a guard shack and its utilities.

The team submitted the remedial design and after approval, construction began in November 2007. The first step was to install sheet piling surrounding the excavation areas. Sheet piling allowed the required deep excavation while simultaneously maintaining the integrity of surrounding structures (see photo above). These structures include Destrehan Street, Building 101, and the soil loadout facility.

Soil excavation began in February 2008 at the southwest corner and progressed eastward along Destrehan Street. Before a short break in the excavation in late March, USACE removed and shipped 3,000 cubic yards of contaminated material to a licensed, out-of-state facility. For a short time, a licensed contractor for Mallinckrodt occupied the site and removed a portion of contaminated material under the oversight of the Nuclear Regulatory Commission. USACE then continued its FUSRAP excavation.

The FUSRAP remediation continues at the site today. Currently, USACE is working in the area immediately south of the loadout facility. FUSRAP remediation is expected to continue in this area until late 2009. In 2010, Mallinckrodt will excavate the remainder of its licensed material at the site. USACE will then finish the deep excavation and backfill the site. The final restoration of Plant 6 West Half is expected to take place later in 2010.

To date, USACE has removed 19,000 cubic yards of contaminated soil from Plant 6 West Half and shipped it to an out-of-state, licensed disposal facility.
Educational Piece

Q: What is a PDI/FSSE?

A: Several FUSRAP properties have had Pre-Design Investigations (PDI) and Final Status Survey Evaluations (FSSE). The USACE conducts a PDI to see if a property contains contamination above cleanup goals. The investigation looks for areas of known or suspected radiological contamination. When it is proved that no more cleanup is necessary at a property, USACE writes a FSSE in accordance with the Multi-Agency Radiation Survey and Site Investigation Manual. The FSSE declares that residual radioactivity does not exceed the limits specified by the Record of Decision. The property is then released to the property owner for use without restriction. If the PDI indicates that contamination is found on a property, no FSSE is written at that time. Instead, a remedial design is prepared to address removal of the contamination.