

The St. Louis Sites

Formerly Utilized Sites Remedial Action Program • Summer 1999

(314) 524-4083

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The East End removal action continued through the contractor turnover with the excavation of 5,200 cubic yards.

St. Louis Airport Site (SLAPS)

East End Excavation Resumed

In October 1998, the U. S. Army Corps of Engineers (USACE) began a two-phase removal action on the East End of the St. Louis Airport Site (SLAPS). Work began in the wedge between McDonnell Boulevard and Banshee Road as part of the site stabilization effort to prevent surface water runoff from carrying radioactive contaminants from the site.

The East End removal action was originally designed as a single activity; however, above normal winter rainfall hampered the progress of removal efforts. As a result of the moisture delay, the removal activity was split into two sections –the Northern and Southern Sections.

Under the initial contract, 9,000 cubic yards of contaminated material were excavated from the Northern Section. The new contractor will remove an additional 10,000 to 15,000 cubic yards of soil from the Southern Section and backfill the area as confirmation activities verify the removal of contaminants to established criteria has been accomplished.

Radium Pits Design Continues

The USACE is finalizing the design to remove contamination from the Radium Pits, which are located in the hump of SLAPS next to McDonnell Boulevard. Work in this section of SLAPS is proceeding under the authority of

the Final SLAPS Engineering Evaluation/Cost Analysis (EE/CA) reviewed by the public in March 1998.

The Atomic Energy Commission/Manhattan Engineer District (AEC/MED) previously used the Radium Pits to store residues from manufacturing operations at the St. Louis Downtown Site (SLDS). Presently, it represents one of the most contaminated areas on the site.

Although work was originally scheduled to begin in June, the excavation has been delayed until October because of weather delays (rain and heat). An estimated 40,000 cubic yards of contamination will be removed from the Radium Pits as the USACE works its way from east to west across the site stabilizing it to limit further offsite migration of material.

Contractor Transition Complete

Work at SLAPS and its contiguous properties has been successfully transitioned to a Total Environmental Restoration Contractor (TERC). Picking up where the previous contractor left off, the TERC is drafting designs and conducting removal actions under the direction of the USACE. Using one contractor to design and excavate is expected to result in a more cost effective and efficient flow of work.

Efforts to stabilize the site and prevent the migration of radioactive contamination (such as the East End removal action work) continued through the transition. By the end of July, sixty-eight railroad gondola cars carrying approximately 5,200 cubic yards of material had been shipped to a licensed out-of-state disposal facility since the contractor transition in June.

What's Next?

Once confirmation is received that removal criteria have been met for the East End activity and the area has been backfilled, contractors will move westward toward the Radium Pits. ■

Upcoming Events

Information Releases:

[Fall Newsletter – November 1999](#)

Upcoming Meetings:

[St. Louis Oversight Committee Meeting at the FUSRAP Project Office at 11:30 a.m. on September 10, October 8, and November 12, 1999.](#)



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Hazelwood Interim Storage Site (HISS)

Spoil Piles Stabilized

The USACE recently stabilized the HISS Railspur spoil piles by spraying on ConCover®, which encapsulated them with a polymer-type coating.

In April, site inspections revealed that these temporary piles, which were stored in the available space between the main and supplementary storage piles, became geologically unstable creating a potential health and safety risk. In addition, high winds occasionally dislodged the heavy liner weighted with cinder blocks making it difficult for workers to maintain coverage.

To eliminate these concerns, a temporary polymer-type coating that would last six months was applied to stabilize the piles until their scheduled removal in two months. The coating has stabilized the piles, ensuring material won't continue to slide down the slope face or risk dispersal by the wind.

Lab Relocation Started

The USACE is negotiating a lease to relocate the HISS on-site lab. Railspur construction near the lab this spring brought attention to potential production problems with analyzing samples.

Analysis of radiological samples requires a stable environment. The current location at the end of the new rail spur would not be adequate once heavy equipment began removing the nearby piles this fall.

In addition, the current facilities do not support the number of samples that need to be analyzed. As the USACE removes more contaminated material from these sites, the lab will be required to process more samples. Moving the



The spoil piles were recently sprayed with a gray polymer-type coating, which has stabilized them until their scheduled removal this fall.

lab to a more stable location will permit work on the rest of the project to continue as scheduled.

What's Next?

Once the negotiations are finished, the woman-owned, small and disadvantaged business contractor will mobilize on-site to begin removing the spoil piles and Eastern Piles. ■

North County

Ecological Risk Under Review

In mid-July, the USACE released its Ecological Risk Assessment for the North County Sites to the Environmental Protection Agency and the Missouri Department of Natural Resources for review. These regulatory agencies are reviewing the screening evaluation presented by the USACE specifically for Coldwater Creek on FUSRAP's ecological risk (i.e. the impact of contamination on the environment).

In the document, comparisons were made to determine if additional data is necessary to more fully assess ecological risk. Based on the review of this evaluation, these agencies will determine if further sampling is required to establish ecological risk in late August.

What's Next?

While the agencies review and provide input to the assessment of ecological risk, the USACE will continue developing remedial alternatives for the final cleanup of North County Sites. These alternatives will be presented to the public in a Feasibility Study in upcoming months. ■

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 click on the FUSRAP icon.

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

St. Louis Downtown Site (SLDS)

Plant 2 Progress Slows

Final cleanup activities within the Mallinckrodt Plant 2 area are proceeding slowly as workers negotiate their way around utility lines. Remedial activities are being conducted using criteria in the approved St. Louis Downtown Site (SLDS) Record of Decision (ROD). Remediation of Plant 2 began in January with the removal of a concrete slab, which had covered the footprint of a demolished building.

Subterranean utilities from demolished buildings dating back to 1846 are still present in the Plant 2 area and slowing progress. While crews reviewed historical maps before excavating, they have discovered utility lines predating available maps.

Since construction crews continue to encounter utility lines during the remediation, they are proceeding cautiously. As these outdated lines are found, they are shutoff and/or moved before proceeding with the excavation.

To date, approximately 5,000 out of an anticipated 8,500 cubic yards have been excavated from Plant 2 for disposal in a licensed out-of-state facility. The USACE anticipates Plant 2 remediation will be completed in November pending confirmation that contractors have successfully removed contamination to the criteria established in the SLDS ROD.

Plant 1 and 6 Sampled

The USACE is systematically surveying Plants 1 and 6 to further define the excavation limits to ensure above criteria contaminants are removed as outlined in the SLDS ROD. The data from this sampling effort will establish excavation volumes for the final remedial design for Plants 1 and 6.



Workers cautiously excavate Plant 2 as they continue to encounter outdated utility lines.



Systematically sampling Plants 1 and 6 will establish the excavation area and remediation volumes. The laborer shown here is working with a recently drilled soil sample.

Crews will excavate Plant 1 before starting Plant 6 work. Although a relatively small volume of contamination is anticipated from Plant 1 remediation efforts, it will require very careful planning. Work will be performed in close proximity to ongoing Mallinckrodt operational facilities beginning in October 1999.

What's Next?

Using the final remedial design, crews will begin remediating Plant 1 once Plant 2 has been finished. Engineers will also finalize the Plant 6 Remedial Design plans. ■

Madison

RI/FS/PP Under Development

With the Final Characterization Report for the Madison Site finished, the USACE is now developing a Remedial Investigation/Feasibility Study/Proposed Plan (RI/FS/PP). The Characterization Report identified uranium contamination in two buildings owned by a manufacturer in Madison, Illinois. The Characterization Report confirmed the presence of contamination in dust on overhead surfaces, while the floors and equipment were below criteria.

Now that the extent of contamination has been determined, the USACE is developing a plan to address the site. This strategy will be presented to the public for review and comment in the RI/FS/PP scheduled for release late this year.

What's Next?

The USACE will present the RI/FS/PP to the public for review and comment this fall to determine the final disposition of the site. ■

What is Radioactivity?

Q: Admittedly this question seems pretty elementary until you stop and think about it. If you were trying to explain what radioactivity was to a ten-year-old child, what would you say? Radioactivity is not detectable with five senses. You cannot see, hear, smell, taste, or feel it. Seems a bit harder to answer the question now doesn't it?

A: *In its simplest explanation, radioactivity is a type of energy. Furthermore, radioactivity refers to a specific type of energy produced when an unstable atom tries to stabilize itself by "decaying" or releasing particles. As these particles are released, energy is created.*

Radiation may take one of two forms: ionizing or nonionizing. Ionizing radiation consists of high-energy particles capable of creating an electrical charge in substances they pass through. Nonionizing radiation cannot create a charge as it passes through material.

Nonionizing radiation may be found in common household products such as lights, microwaves or televisions. Ionizing radiation can be found in everything in nature in trace amounts – including people. It can be found in carbon and potassium, as well as elements such as uranium and thorium. But if radiation is so natural, why are we spending so much to clean it up? Just like sunlight (another radiation source), radiation poses little harm until you've been exposed to too much of it. The Corps is working on the FUSRAP Sites in order to limit the amount of radiation to which we are exposed.

Naturally occurring ionizing radiation may be one of three types (alpha, beta, or gamma). Alpha particles can only travel approximately one to two inches in air and can be blocked by a sheet of paper. Beta particles can travel 6 – 10 feet in air but can be blocked with Plexiglas® or glass. Gamma particles can travel the farthest but may be stopped with lead.

Many people believe radioactivity is a compound that can be treated by finding the right chemical mixture to neutralize it or "make it go away". Unfortunately, since radioactivity is energy produced by elements, which are already in their simplest form, it cannot be neutralized. We can only control the locations of radioactive material and wait until nature takes its course.

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