

The St. Louis Sites

Formerly Utilized Sites Remedial Action Program • Winter 2005

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What Safety Precautions does USACE Follow Before Shipping Waste Off-site?

The local media recently aired coverage of nuclear waste shipments by rail line through the St. Louis area from eastern power plants. The levels of radioactivity in soils shipped from the St. Louis FUSRAP Sites are not nearly as toxic as these shipments. But what safety precautions does U.S. Army Corps of Engineers (USACE) follow in its shipping process?

Cleanup of the St. Louis FUSRAP sites requires disposal of contaminated materials at an approved, out-of-state, disposal facility. In accomplishing this mission, USACE abides by the regulations of the U.S. Department of Transportation (DOT) that govern the packaging, communication, and transportation of excavated materials.

Appropriate packaging of the material is vital to safe transportation. Railcars are lined with heavy plastic liners that are then folded and tied in such a fashion as to form a tight, secure package impervious to weather. Once the liner is properly closed, the material cannot escape. Crews survey every liner and railcar prior to transport off-site to assure surfaces are free of contamination. The exterior surface of the liner is waterproof. No water can get into or out of the liner. This ensures that any precipitation encountered during transportation can safely drain away through holes in the railcar floor.



Placards, or signs, posted on the railcar help communicate the contents held by the railcar.

All of the required labels and/or placards for these hazards are applied to each railcar along with a destination sticker. A manifest and bill of lading for each railcar is also completed and given to the railroad company along with emergency response information. Prior to release, each



USACE follows U.S. Department of Transportation regulations to package and transport contaminated materials from the FUSRAP sites.

Each railcar's progress from the site to the disposal facility is tracked. To ensure that all the material shipped arrives safely at its destination, the disposal facility provides receipt notification to the USACE. Since 1998, USACE has safely shipped over 7,000 railcars to disposal facilities.

Each railcar is inspected by quality control personnel to ensure the proper closure and integrity of the liner, and that the proper information has been placed on the railcar.

USACE is committed to the safe shipment and disposal of FUSRAP material. USACE maintains open communication with the surrounding community, including local emergency responders. No railcars are allowed to leave the site until USACE certifies that all of the paperwork has been completed and the material is ready to ship.

Upcoming Events

Information Releases:

• Spring Newsletter – June 2005

Upcoming Meetings (Please come if you are available!):

St. Louis Oversight Committee Meetings at the FUSRAP Project Office located at 8945 Latty Avenue Berkeley, Missouri at 11:30 a.m. on April 8th, May 13th, and June 10th.

Cleanup: A Property Owner's Perspective

In 1896, Mr. Thomas' ancestors founded the Thomas & Proetz Lumber Company on a tract of land in northern St. Louis City. The location proved to be a business incubator for the fledgling lumber company.

Riverfront lumber companies supported the explosive development of the city, providing lumber to meet the growing demand for materials to build homes, businesses and even some of St. Louis' majestic mansions. Piles of wood, 10- to 15-feet high, were stacked as far as the eye could see. From the Mississippi riverfront, workers pulled logs brought downriver from vast northern forests directly to St. Louis sawmills. The raw timber was quickly converted into finished lumber and sold.

But as shrewd as they were in selecting this location and setting up business, how could Thomas & Proetz have known that decades later -- half way through the 20th century -- the U.S. would be involved in a global war culminating in a headlong rush to become the first nuclear power under the Manhattan Project? And how could they have foreseen the resulting radioactive contamination of their property?

Although the lumber company was not on the property where the actual work took place, radioactive contamination spread from Mallinckrodt Chemical Works to the adjacent property, through no fault of the lumber company.

So what was the lumber company's reaction? Frankly, when USACE first sat down with them, they were less



USACE worked closely with the lumber company to minimize disruptions to daily business operations.



The Thomas & Proetz office building was constructed in 1903. This photo from Angelrodt Street was taken in 1910.

than enthusiastic about granting access to the government to cleanup his property. Neither Mr. Thomas nor his employees had presented any illnesses to make him concerned. Most died of old age. From what he, his family and his workers had experienced, he didn't understand what all the fuss was about. He couldn't think of one suspicious illness related to the radiological contamination.

And human health wasn't their only concern. What about the health of the business? The lumber yard was a "just in time" business, producing what the customer requested as they requested it. Taking a "few days" off for a government cleanup could risk the business and employees' job security. Even if USACE could cleanup the property in two weeks, they couldn't afford the risk. The lumberyard might not have any customers left when the government finished and the employees could be out of their jobs.

As with most FUSRAP areas, the levels of radioactivity on his property did not pose an immediate health risk. No one lived on this property and it certainly was not used for recreational purposes. The potential risks were long-term, related to future property inhabitants more likely to live or play on the property.

But even if Mr. Thomas was willing to accept the contamination on his property, future buyers might not and he could encounter difficulty getting full market value his property. In today's business world, few banks would support purchase of a contaminated property and few businesses would accept such risks themselves. Impacting the value of the property also impacted the value of the business.



USACE started cleanup of the Thomas & Proetz property in November 2004 working in one small area at a time.

Finally, Mr. Thomas asked, “Would the government give his property a ‘clean bill of health’?” That could be a problem. If the contamination were inaccessible (i.e. - under permanent structures, such as his buildings), USACE could not remove it. Two potential areas of inaccessible contamination existed. One was under the rail spur where he received and shipped product. The other was under the planer building, where he transformed raw lumber into finished materials. Any disruption to the operation of either of these structures could literally put him out of business.

USACE had a plan ready for just this type of problem. We’d learned many lessons in the course of our work and had time to refine work plans. USACE proposed a plan to investigate both areas with Mr. Thomas’ permission. Then, we could regroup and find a win-win solution for both Mr. Thomas and USACE.

We arrived at an agreement last year. Together, we were able to identify the risks for each party and develop an approach agreeable to both parties for the cleanup of the property. USACE started the cleanup in November 2004, removing and restoring one section at a time, careful to minimize disruption to ongoing business operations. In February 2005, USACE “returned” the property free of contamination.

The success of this cleanup is a story of “adaptive management,” or stepping back and examining progress periodically and adapting future work to take into consideration new or changing facts as presented by each project stakeholder. The USACE adapted plans to

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accommodate the lumberyard’s requirements to permit property access for the proposed cleanup. Mr. Thomas also adapted. He adapted to a future that neither he nor his ancestors who founded the lumber company could have possibly foreseen.

In so doing, two great organizations have moved ahead. The USACE is taking another step toward completing its mission and Mr. Thomas, his family, and employees continue to enjoy a bright future in their chosen lives. It’s called a “win-win” solution... and now you know the rest of the story.



By working with the lumber company, USACE was able to successfully complete the cleanup of the property in February 2005.

St. Louis Airport Site Enters Final Phase

Unusually heavy rainfall earlier this year delayed work at the St. Louis Airport Site (SLAPS) where crews are preparing for the final phase of cleanup.

Crews are installing sheet pile along the Norfolk Southern Corporation rail line, which in part forms the southern border of SLAPS. Sheet piling is being installed to maintain the stability of the rail line during the excavation of the final phase of SLAPS – Phase 6.

USACE has been working closely with the railroad. The sheet piles are being driven from a rail-mounted crane that operates from their track siding. This, in turn, minimizes disruption to main line operations.

The sheet piling installation will continue throughout the upcoming summer. Excavation of contaminated material will follow this installation in a “stair-step” manner. Removal will generally proceed from the west end of the site by Coldwater Creek to the east. Phase 6 is estimated to result the removal of some 90,000 cubic yards of material.



Crews are installing sheet piling along the Norfolk Southern Corporation rail line from a rail-mounted crane. Sheet piling is being installed to maintain the stability of the rail line during upcoming cleanup activities.

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