314-260-3905/314-331-8000 www.mvs.usace.army.mil

FUSRAP continues cleanup during **COVID-19**

The U.S. Army Corps of Engineers has put additional health and safety practices into place to reduce the risk of COVID-19 impacting remediation operations.

USACE's Formerly Utilized Sites Remedial Action Program (FUSRAP) addresses radiological contamination generated by activities of the Manhattan Engineer District and the Atomic Energy Commission (MED/ AEC) during development of atomic weapons in the 1940s and 1950s.

Throughout the 2019 novel-coronavirus disease (COVID-19) pandemic, the St. Louis FUSRAP team has continued the cleanup.

"The FUSRAP mission is to protect public health and the environment while finding and removing contaminated soils," FUSRAP program manager Bruce Munholand said. "Performing that mission during the COVID-19 pandemic has required us to re-think how we execute our mission -- not only in terms of safely handling radioactive materials but doing so in a manner that safely distances our personnel and processes from local residents, our neighbors. To that end, USACE and its contractors have implemented several procedures to protect residents from COVID-19 exposure during the sampling and remediation processes."

FUSRAP procedures are in line with recommendations from the Centers for Disease Control and Prevention (CDC).

Pandemic calls for virtual open house

As an adjustment during the COVID-19 pandemic, the Formerly Utilized Sites Remedial Action Program will fulfill its commitment to the community for an annual open house and information exchange through a "Virtual FUSRAP Open House."

The FUSRAP team plans to have a link up and running on the FUSRAP webpage by the end of July. Visit https://go.usa.gov/xwjzB.

The "Virtual FUSRAP Open House" will include:

- 1. Several 2- to 3-minute videos of FUSRAP subjectmatter experts talking about their areas of expertise.
- 2. Electronic fact sheets about the St. Louis Sites and related topics of interest.
- 3. The "Ask the Experts" mailbox will allow webpage visitors to submit questions. Most questions will be answered within the "Ask the Experts" feature. Visitors may also submit questions to the program's email account, STLFUSRAP@usace.army.mil. FUSRAP officials will answer general questions within "Ask the Experts." However, in order to protect homeowner anonymity, some questions will receive a private email response. Although full names are required, submitters of general questions may ask FUSRAP to withhold publishing their names for privacy or to identify them only by first name and surname initial.

Among other precautions, both USACE's sampling and laboratory contractor Leidos and remediation contractor HydroGeoLogic (HGL) are:

- Allowing non-field team members to telework to the extent possible.
- Maximizing use of social (physical) distancing when performing work activities.
- Using face coverings when work requires being closer than 6 feet apart.
- Continuing their emphasis on cleaning and disinfecting hands and faces as well as contacted surfaces, equipment, scientific instruments, computers and personal items, such as cellphones and drinking cups.

Leidos has implemented a variety of additional measures to provide maximum protection for fieldwork and laboratory work, which, of course, cannot be performed remotely, according to Eric Danielson, program

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Upcoming Events

Upcoming Meetings: Due to the impacts of COVID-19, the FUSRAP Open House will not be held in the traditional way this year. Learn more about it on this page.

Information Releases: Winter
Newsletter - January 2021. FUSRAP issues
this newsletter twice a year.



manager at Leidos in the Civil, Environmental and Infrastructure Portfolio:

- Staggering/altering work shifts to reduce number of staff physically together at one time.
- Requiring every member of field and laboratory crew to undergo a daily pre-work health-screening. This process includes a temperature check and a series of basic healthscreening questions based on CDC guidance.
- Implemented a "contactless" sample-transfer process for receipt of samples from the remediation contractor.

"We manage COVID-related risks similarly to the way we manage other health and safety issues our employees face," according to Danielson, "that is, we minimize risk through the use of engineering controls, administrative controls and personal protective equipment. For COVID-19 risks in particular, we also incorporate measures from CDC guidance into our health and safety program."



Leidos contractors conduct activities at a sampling site during the 2019 novel-coronavirus disease (COVID-19) pandemic.

HGL's precautions include:

- Adjusting field operations to minimize the tasks that require workers to work within 6 feet of one another.
- Limiting vehicle occupancy to no more than two people, and those individuals must wear face masks.
- Increasing the vehicle fleet to reduce passengers and facilitate social distancing.
- Conducting Morning Tailgate Meetings, in which daily safety topics and the day's field operations are discussed, outdoors. During inclement weather, the meetings are broken into small groups to permit social distancing.

- Having field personnel take lunch breaks in their personal vehicles or in areas where 6 feet of separation or more is possible.
- Mobilizing additional handwashing stations and portable toilets to remediation areas.
- Installing handsanitizing stations outside of restrooms and in all common areas.



HydroGeoLogic contractors survey a site at the St. Louis Downtown Site, using COVID-19 guidelines from the Centers for Disease Control and Prevention.

 Using videoconferencing when feasible. When in-person meetings are needed, the meetings are held in small groups, and a minimum distance of 6 feet is maintained among individuals.

"As we all learn to manage the 'new normal,' the St. Louis FUSRAP team has been quick to adjust to the challenging conditions of the last few months," according to Adrian N. "Neil" DeYong, principal project manager for HGL. "Employing teamwork, communication and behavior-based safety, the personnel at SLDS and NORCO have helped prevent the spread of disease to subcontractors and to the public."

Keeping in Touch

Feedback - If you have any suggestions, questions or comments, contact the U.S. Army Corps of Engineers using any one of the following contact methods:

Phone: 314-260-3905/314-331-8000

Mail: U.S. Army Corps of Engineers
St. Louis District

FUSRAP Area Office 114 James S. McDonnell Blvd.

Hazelwood, MO 63042

Email: STLFUSRAP@usace.army.mil

Mailing List - To receive newsletters and other printed communications, sign up for the FUSRAP mailing list or email list, using one of the contact methods above.

Home page - To reach the new, redesigned FUSRAP webpage, visit https://go.usa.gov/xwjzB.

Facebook - Visit the USACE St. Louis District page at www.facebook.com/teamsaintlouis.

Formerly Utilized Sites Remedial Action Program Activities

St. Louis Downtown Site

Since the Winter Newsletter, the St. Louis District removed 1,662 cubic yards of contaminated material from the St. Louis Downtown Site (SLDS) and shipped it to a licensed, out-of-state disposal facility. The district had anticipated a total shipping goal for this fiscal year (October 2019 through September 2020) of 3,000 cubic yards from this site. The district has shipped 2,410 cubic yards from SLDS so far this FY and is on schedule to accomplish the shipping goal.

The FUSRAP team is currently conducting restoration activities at Destrehan Street and Plant 7W. Remedial activities in the previously inaccessible areas at the Gunther Salt property are continuing, and the evaluation of the previously inaccessible areas inside the Mallinckrodt Plant is ongoing. The district anticipates completing the restoration of Destrehan Street and Plant 7W, completing remediation at the Gunther Salt Dome 2 areas and issuing documents to release three additional areas during FY20.

The inaccessible areas of the St. Louis Downtown Site were broken into Group 1 and Group 2 property groups. The district issued a Record of Decision with No Further Action as the selected alternative for inaccessible soils at the Group 1 properties in FY14. Since then, the FUSRAP team has further evaluated several areas within the Group 2 properties for inclusion into Group 1. In FY20, the St. Louis District will continue working toward issuing a remedial investigation addendum focusing on the remainder of the inaccessible soils categorized as Group 2 properties.

North St. Louis County Sites

Former Ballfields Phase 3

The U.S. Army Corps of Engineers continues to remediate the former Ballfields area, which consists of approximately 48 acres. The FUSRAP team has shipped 12,627 cubic yards of contaminated soils this calendar year (through June 30). A total of 260 cubic yards remain from Phase 2B that will be removed during Phase 3 remediation. Phase 3 is on the west side of the former Ballfields adjacent to Coldwater Creek.

A total of 32,000 cubic yards of clean overburden was placed over contaminated material in this area of the former Ballfields to build up the area for development and flood prevention. In order to remove the contaminated material from Phase 3; the clean overburden must first be removed. About 95,000 cubic yards of contaminated material are approximately 6 to 19 feet below ground surface.

The FUSRAP team started the excavation of Phase 3 former Ballfields July 15, 2019, by removing 21,000 cubic yards of clean overburden. This material will be surveyed to ensure it meets North County Record of Decision (ROD) remediation goals (RGs). The material that meets ROD RGs is stockpiled and will be used to backfill in Phase 3 excavated areas. Presently, USACE has removed more than 25,000 cubic yards of contaminated material from Phase 3.

Frost Avenue

The FUSRAP team initiated Pre-Design Sampling at Frost Avenue in December 2019. USACE completed sampling at 189 sampling locations there. Sampling is on hold to obtain a Special Use Permit from St. Louis County, which is needed to complete the remaining 10 sampling locations.

FUSRAP/MoDOT partnership

The Missouri Department of Transportation's I-270 North Project will include improvements within the North St. Louis County FUSRAP Sites boundary established in the 2005 Record of Decision. MoDOT's work is presenting the U.S. Army Corps of Engineers (USACE), St. Louis District, Formerly Utilized Sites Remedial Action Program (FUSRAP) with a success story for its North County neighbors that may not have occurred otherwise.

USACE has been working closely with MoDOT to coordinate efforts planned for I-270 and Pershall Road between Lindbergh Boulevard and North Hanley Road, as well as replacement of bridges over Coldwater Creek in that same area

In 2019, USACE investigated to identify areas of contamination that may be affected by the MoDOT improvements. Cooperation from MoDOT will allow USACE to access and remediate approximately 35,000 cubic yards of contaminated soil, much of which is currently inaccessible or would be made inaccessible by the road improvements. These areas include soils beneath portions of Pershall Road and the area between I-270 and Pershall Road. Starting August 3, MoDOT will close Pershall Road between Ford Lane and Polson Lane. This will mark the beginning of USACE activities including traffic-control barrier placement and additional soil sampling, followed by remedial excavation. USACE will be performing remediation ahead of the main MoDOT work in the contamination areas but will have some concurrent activities. USACE plans to finish activities in January 2021.

The MoDOT I-270 North Project (http://www.i270north.org) runs from James S. McDonnell Boulevard to Bellefontaine Road.



To what sources of radiation are we exposed?

Radiation is all around, all the time, everywhere. This energy travels in the form of unseen waves or particles.

The average American receives 310 millirem of radiation every year from natural sources. An additional 310 millirem per year is received from man-made sources, like X-rays.

At the sites being cleaned up by the U.S. Army Corps of Engineers, St. Louis District, Formerly Utilized Sites Remedial Action Program (FUSRAP), uranium, thorium and radium are the primary radioactive contaminants. By testing the FUSRAP sites, scientists assess what needs to be cleaned up, where and to what level to reduce the overall risk to human health and the environment.

The National Council on Radiation Protection and Measurements (NCRP) Report No. 160, 2009, provides information on sources of radiological exposure.

Read the Radiation Basics fact sheet on the FUSRAP webpage at https://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/ or https://go.usa.gov/xwjzB.

Radiation Exposure

Source of Exposure	Amount of Exposure
CT angiography of heart	1,200 mrem/exam
CT scan of full body	1,000 mrem/exam
Upper gastrointestinal tract series	600 mrem/exam
Radon in average U.S. home	230 mrem/year
CT scan of head	200 mrem/exam
CT scan of lungs	150 mrem/exam
Cigarette smoking (1 pack a day)	36 to 70 mrem/year
Terrestrial exposure in Colorado Plateau (additional)	50 mrem/year
Mammogram (single procedure)	40 mrem/exam
Food and water supply	40 mrem/year
Cosmic exposure living in Colorado (additional)	35 mrem/year
Chest X-ray	10 mrem/X-ray
Eating 1 banana a day	4 mrem/year
Dental X-ray	1.5 mrem/X-ray
Airline travel	1.0 mrem/1,000 miles
Sleeping next to spouse (or significant other)	0.5 mrem/year

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