



FUSRAP Team
 1776 Niagara Street
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 US Army Corps of Engineers
 Buffalo District



Contact Us!

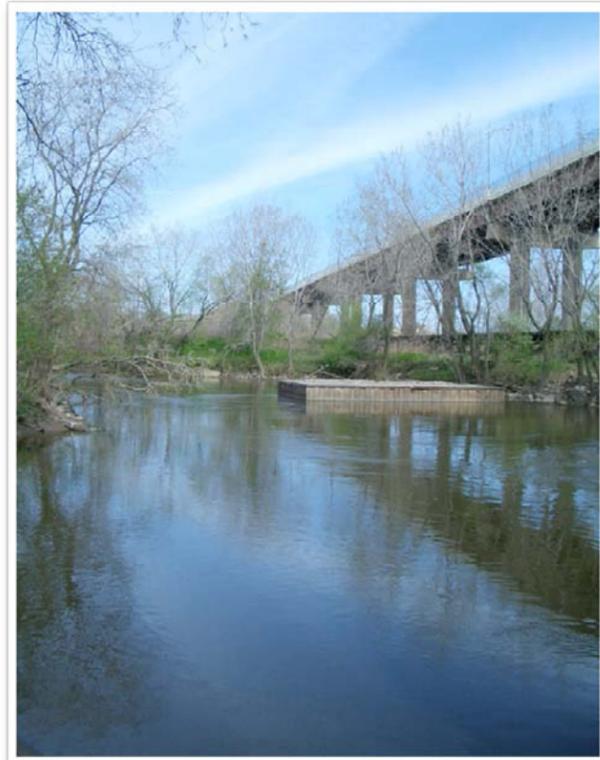
Please contact us if you have questions or would like additional information. Please notify us if you know someone who would like to be added to our mailing list.



US Army Corps of Engineers
 Buffalo District

FUSRAP Team

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The Cuyahoga River running through the Former Harshaw Chemical Site.



US Army Corps of Engineers
 Buffalo District



Information about the Former Harshaw Chemical FUSRAP Site for Cleveland area residents

Harshaw Spotlight

April 2008

WHAT IS FUSRAP?

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and clean up or control sites throughout the United States that were part of the Nation's early atomic weapons and energy programs during the 1940s, 1950s, and 1960s. Activities at the sites were performed by the Manhattan Engineer District (MED) or under the Atomic Energy Commission (AEC). Both MED and AEC were predecessors of the Department of Energy (DOE).

In October 1997, Congress transferred management of FUSRAP to the U.S. Army Corps of Engineers. When a site is identified, records are reviewed by DOE, and if DOE determines there is potential for contamination present that may affect human health and the environment, they may send a request to the Corps to review the site. The Corps then does a Preliminary Assessment, and possibly a Site Inspection, to review historical records, perform limited sampling, and determine if further investigation is necessary. If contamination is found that is connected with past MED or AEC activities, exceeding guidelines, investigation and, if necessary, cleanup may be authorized under FUSRAP. Congress has also added sites to FUSRAP through authorizations.

Dear Interested Citizen,

This is our first letter to you regarding the Former Harshaw Chemical Site that is currently under investigation by the U.S. Army Corps of Engineers (the Corps), Buffalo District under FUSRAP. We hope that this and future newsletters will be informative and useful to you as interested citizens.

The Corps is committed to informing and involving the public as it moves through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process during the investigation and potential cleanup of the Former Harshaw Chemical Site and has established the following overall goals for the community involvement program. The Corps will:

- ✓ Foster and maintain a climate of understanding and trust between the public and the Corps,
- ✓ Communicate our commitment to protect human health and the environment during FUSRAP activities at the Former Harshaw Chemical Site,
- ✓ Encourage and enable the public to get involved and provide input,
- ✓ Listen carefully to what the public is saying,
- ✓ Identify and deal responsively with public concerns, and
- ✓ Change planned actions where public comments or concerns have merit.

You can learn more about the CERCLA process inside this newsletter. Please contact us if you have additional questions; our contact information is on the last page of this newsletter.

Respectfully,

*The U.S. Army Corps of Engineers
 FUSRAP Team*



Historic view of the Former Harshaw Chemical Site



Top: A current view of the Former Harshaw Chemical Site; Bottom left: Sewer water sampling is performed during the Remedial Investigation; Bottom center: Trenching is performed in front of Building G-1 during the Remedial Investigation; Bottom right: A close-up of the Foundry Building.

Where are we now?

SITE INFORMATION

The Former Harshaw Chemical Site is a 55-acre industrial facility located five miles southwest of downtown Cleveland in Cuyahoga County, Ohio. The main portion of the facility included over 30 buildings on about 16 acres of land. The site is located in a low-lying area adjacent to the Cuyahoga River and Big Creek and is surrounded on three sides by industries.

The U.S. Department of Energy (DOE) determined the site eligible for inclusion into FUSRAP in June 1999, thus representing the start of the site investigation activities by the U.S. Army Corps of Engineers - Buffalo District.

Recent and ongoing FUSRAP investigation and evaluation activities at the Former Harshaw Chemical Site are explained on the next page.

The Former Harshaw Chemical Site, located along Harvard Avenue, was initially purchased by the Harshaw, Fuller & Goodwin Company in 1905. The site was previously owned by the Canadian Copper Company. Early operations conducted at the Harvard Avenue location included the manufacture of acetone, hydro-fluoric acid, sodium fluoride, ammonium fluoride, and nickel and cobalt salts.

From 1944 to 1959, the former Harshaw Chemical Company was contracted by the Manhattan Engineering District (MED) and the Atomic Energy Commission (AEC) to produce uranium that was sent to Oak Ridge, Tennessee, for isotopic separation and enrichment. In 1960, the site was released for unrestricted use by the AEC.

Previous investigations that addressed residual radiological contamination at the site were conducted from 1976-1979. The current property owners conducted additional investigations in the 1990s and numerous buildings were decontaminated and demolished.



Subsurface investigation being performed using specialized radar equipment.

Questions? Please call or e-mail us to learn more and ask questions!

Our contact information is located on the back page.

CERCLA AT A GLANCE

When implementing FUSRAP, the Corps follows the Comprehensive Environmental, Response, Compensation and Liability Act (CERCLA), which was enacted by Congress on December 11, 1980. This law:

- ✓ Established prohibitions and requirements concerning closed and abandoned hazardous waste sites.
- ✓ Provided for liability of persons responsible for releases of hazardous waste at these sites.
- ✓ Authorizes response actions for both short-term removals and long-term remedial response actions to permanently and significantly reduce the dangers associated with releases of hazardous substances.

WHERE ARE WE NOW IN THE CERCLA PROCESS?

A Remedial Investigation was performed to collect data to characterize site conditions, determine the nature of waste, and assess risk to human health and the environment. During the Remedial Investigation, the site was divided into the investigative areas that are identified in the figure to the right. The Corps' team sampled sediment and surface water in the Cuyahoga River and Big Creek, the groundwater under the site, the surface soils and subsurface soils on site and the building structures on the site (see the table at bottom right). The Corps' team found evidence of varying amounts of contamination resulting from MED/AEC activity at the site. The residual radioactive contamination includes the radioisotope radium in addition to uranium and thorium. Also identified were MED/AEC process related chemical contaminants (lithium, molybdenum, and kerosene).

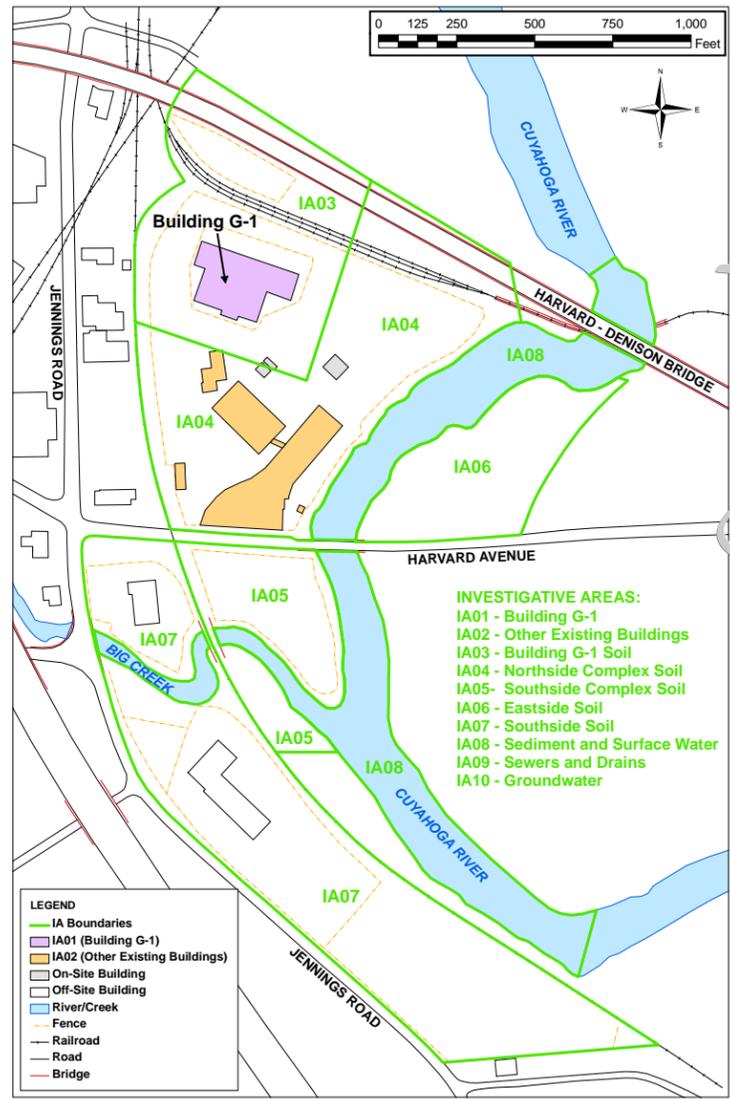
Preliminary results of the Remedial Investigation were summarized in the 2006 Remedial Investigation Report, which also included the Baseline Risk Assessment. Based on the site's current use, the levels of radiological contamination found do not pose an immediate risk to human health and/or the environment. The Remedial Investigation Report and the Baseline Risk Assessment conclude that:

- ✓ There are no imminent threats to human health for current site use and controls.
- ✓ Over a person's lifetime, with 25 to 30 years of daily exposure on the site, there are long-term human health risks related to the radiological contamination at the site.
- ✓ Uranium is present above background levels in buildings, soils, sediments, and groundwater.
- ✓ Uranium concentrations are highest near Building G-1, the main processing facility.

During the development of the Remedial Investigation Report and the Baseline Risk Assessment the Corps identified the presence of additional radioactive elements and obtained additional historical

documents which indicate other MED/AEC processes may have taken place at the site. As a result of these findings, the Remedial Investigation Report and the Baseline Risk Assessment are being revised in 2008 to address thorium and other potential radiological contaminants of concern.

Upon completion of the Remedial Investigation phase, the Corps will complete a Feasibility Study to identify and evaluate cleanup technologies for addressing the human health and ecological risks associated with MED/AEC contaminants.



Type of Sample Collected During the Remedial Investigation	No. of Locations	No. of Samples Collected
Onsite soil - IA03, IA04, IA05, IA06, and IA07	384	1,105
Onsite building materials (e.g., walls or floors) - IA01 and IA02	41	47
Sediment and surface water from the surrounding rivers - IA08	16 sediment 12 surface water	19 sediment 14 surface water
Soil, sediment, and water inside and surrounding the onsite sewer manholes - IA09	20 sediment 5 soil 11 water	36 sediment 5 soil 14 water
Onsite groundwater	53	121