



US Army Corps  
of Engineers®  
Buffalo District

# Harshaw FUSRAP Site

## Investigative Area 06 Proposed Plan

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### Fact Sheet

US Army Corps of Engineers, Buffalo District • April 2010

*This fact sheet has been prepared to address community outreach needs and is consistent with provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Fact sheets are one part of an effort to provide public information on environmental restoration performed under the Formerly Utilized Sites Remedial Action Program (FUSRAP)..*

#### Site Description and History

The former Harshaw Chemical Company Site is located at 1000 Harvard Avenue, approximately 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 former Harshaw Chemical Company was contracted by the Manhattan Engineer District (MED) and later the Atomic Energy Commission (AEC) to support the Nation's early atomic energy program. From 1944 to 1959, various forms of uranium were processed in Building G-1 (formerly known as Plant C) for isotopic separation and enrichment at Oak Ridge, Tennessee.

Previous investigations that addressed residual radiological contamination at the site were conducted from 1976 to 1979. The current property owners conducted additional investigations in the 1990s and numerous buildings were demolished. Based on a request from the State of Ohio and the site owners, the US Department of Energy (DOE) determined that this site should be reviewed for possible inclusion in the Formerly Utilized Sites Remedial Action Program (FUSRAP). On June 3, 1999, the DOE referred this action to the Corps of Engineers. Based on the results of a Preliminary Assessment, the former Harshaw Chemical Company Site was included in FUSRAP in Spring 2001, for further characterization of FUSRAP-related contaminants.

FUSRAP was initiated in 1974 to identify, investigate, and cleanup 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.

When implementing FUSRAP, the Corps follows the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Following the CERCLA Process, the Corps recently completed the Remedial Investigation of the former Harshaw Chemical Company Site. During this investigation the Corps divided the site into Investigative Areas (IAs).

- IA 01 - Building G-1
- IA 02 - Other buildings
- IA 03 - Building G-1 soils
- IA 04 - Soils North of Harvard Avenue
- IA 05 - Soils South of Harvard Avenue
- IA 06 - Soils East of the Cuyahoga River
- IA 07 - Soils South of Harvard Avenue along Jennings Road
- IA 08 - Surface Water and Sediment
- IA 09 - Sewers and Drains
- IA 10 - Groundwater

#### Investigative Area (IA) 06

IA 06 is a six-acre area located north of Harvard Avenue and east of the Cuyahoga River that was once owned by the former Harshaw Chemical Company. No known process-related activities were conducted in IA 06. Historical information indicates this area was used for general construction debris fill activities. There are no buildings in IA 06 and a historical aerial photo analysis shows no evidence of past development.

The Corps has been working closely with the Ohio Environmental Protection Agency, the Ohio Department of Health and the Ohio Canal Corridor

to expedite completion of FUSRAP-related work on IA 06.

Ninety nine soil samples were collected from 42 locations on IA 06 during the Remedial Investigation of the site. These samples were analyzed for the following constituents of interest:

- Americium-241
- Cesium-137,
- Europium 152,
- Europium-154,
- Lead-210,
- Lithium,
- Molybdenum,
- Total Petroleum Hydrocarbons,
- Neptunium-237
- Plutonium-238
- Plutonium-239/240,
- Technetium-99
- Total Uranium (including uranium-233, -234, -235, -236, and -238)
- Radium-226,
- Radium-228,
- Thorium-228,
- Thorium 230, and
- Thorium-232

The results of this investigation of IA 06 are summarized below:

Lithium, molybdenum, and Total Petroleum Hydrocarbons were detected in IA 06 soils samples, but were not determined to be significant constituents of potential concern (COPC).

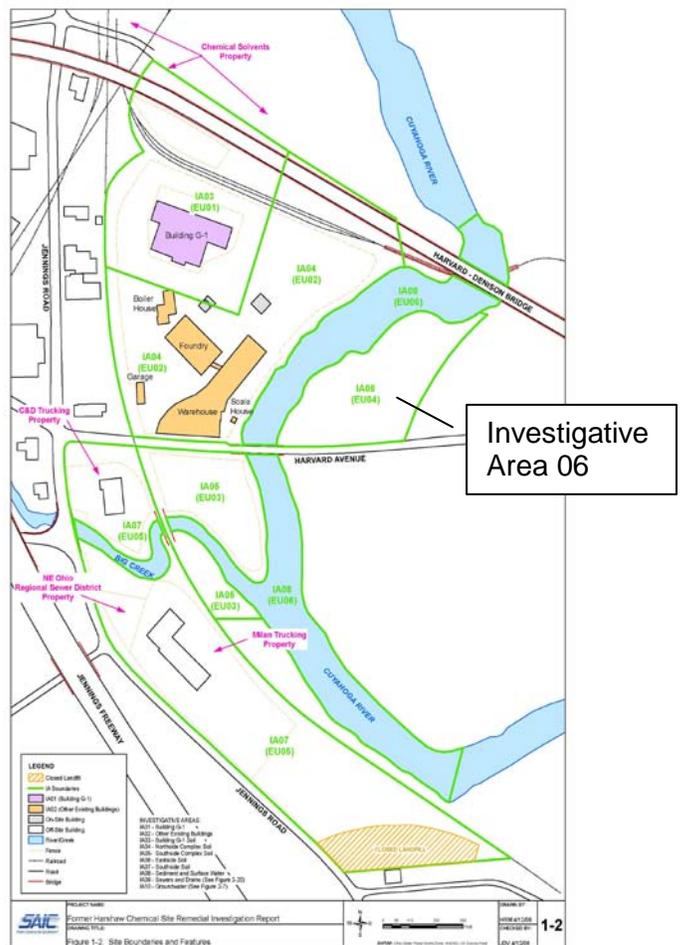
Three radiological constituents: radium-228, thorium-228, and thorium-232, were also detected in IA 06 soil samples, but were not identified as significant COPC.

Three samples found total uranium in a single localized zone in the south-central portion of IA 06. The composition of the materials in this area indicates the total uranium in IA 06 may occur as a result of fill emplacement in the mid 1950s. Only two samples exceeded the most conservative background value for radium-226 and radium-228. Soil samples with thorium-230 results above the most conservative background value appear to be present in the same location as the total uranium.

Modeling of the groundwater in IA 06 indicates that uranium concentrations in the soils will not produce

groundwater impacts above background nor exceed the drinking water standard.

The Remedial Investigation Report for the former Harshaw Chemical Company Site includes a Baseline Risk Assessment that includes Human Health and Screening Level Ecological Risk Assessments. Residual radionuclide concentrations within IA 06 do not pose a risk to human health or the environment based on the evaluations in the Baseline Risk Assessment for current or reasonably anticipated future land use of recreational.



Former Harshaw Chemical Company Site Boundaries and Features

## Investigative Area 06 Proposed Plan

Based on the findings of the Remedial Investigation and the conclusion that the chemical or radiological FUSRAP constituents of interest at IA 06 do not pose unacceptable risks to human health or the environment for the current and reasonable future site use, which is recreational, the Corps proposes no further action for IA 06. The no action remedy outlined in the Proposed Plan is fully protective of human health and the environment.

The Corps invites members of the public to review the Proposed Plan and provide us with your comments. The Proposed Plan is available on the Buffalo District website at: [www.lrb.usace.army.mil/fusrap/harshaw](http://www.lrb.usace.army.mil/fusrap/harshaw). Additional information regarding the former Harshaw Chemical Company Site and IA 06 is included in the Administrative Record File for the site which is available locally in Cuyahoga County Library (Brooklyn Branch), 4480 Ridge Road, Cleveland, OH 44134. The Administrative Record File includes the recently released Revised Remedial Investigation Report and other documents that support the Proposed Plan.

Members of the public who wish to comment on the IA 06 Proposed Plan may submit their comments in writing to the Corps by email at: [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil) by close of business May 26, 2010 or by postal mail to the US Army Corps of Engineers, FUSRAP Team, 1776 Niagara Street, Buffalo, NY 14207, postmarked by May 26, 2010. Please refer to the former Harshaw Chemical Company Site IA 06 Proposed Plan in any comments. All comments will be reviewed and considered by the Corps prior to making a final decision concerning the IA 06. A public meeting will be held on May 12, 2010 at 6:30 p.m. in the State Boat Landing Room of the Cleveland Metroparks Canalway Center located at 4524 East 49<sup>th</sup> Street, Cuyahoga Heights, OH 44125.

After the close of the public comment period, the Corps will review all public comments and any new information developed or received during the course of this public comment period, as required in CERCLA and the National Oil and Hazardous Substances Contingency Plan. An authorized official of the Corps will then make a final selection of the remedy for IA 06. This decision will be documented in a Record of Decision, which will be

issued to the public, along with a response to comments submitted regarding this Proposed Plan.

If there are any questions regarding the comment process, or the Proposed Plan, please direct them to the addresses noted above, or telephone: 1-800- 833-6390 (option 4).

## Administrative Record File

The Administrative Record File for the former Harshaw Chemical Company Site contains documents that support the decision-making process for the site. It is available for your review at the following locations:

Cuyahoga County Library (Brooklyn Branch) 4480 Ridge Road Cleveland, OH 44134	US Army Corps of Engineers (by appointment) 1776 Niagara Street Buffalo, New York 14207
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## ***For More Information***

Call the FUSRAP toll-free public access line:

**1-800-833-6390**

The Buffalo District Web Page address  
for the Harshaw Site is:

**[www.lrb.usace.army.mil/fusrap/harshaw](http://www.lrb.usace.army.mil/fusrap/harshaw)**

Electronic mail can be sent to us at:

**[fusrap@usace.army.mil](mailto:fusrap@usace.army.mil)**

Please let us know if you would like to be included  
on the mailing list for the Harshaw Site.

You may also contact the:  
US Army Corps of Engineers  
FUSRAP Team  
1776 Niagara Street  
Buffalo, NY 14207