



US Army Corps  
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# FUSRAP Fact Sheet

## Niagara Falls Storage Site: SITE STATUS UPDATE

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*This is one in a series of fact sheets that provides information about regulatory, technical, and other issues related to the Formerly Utilized Sites Remedial Action Program (FUSRAP). This fact sheet discusses current site status and recent accomplishments at the Niagara Falls Storage Site.*

**Site Description:** The Niagara Falls Storage Site (NFSS) is a federally owned 191-acre site located in Lewiston, New York. This land was once a portion of the Department of Defense's former Lake Ontario Ordnance Works site. The property includes a 10-acre interim waste containment structure (IWCS) for radioactive residues and waste, and three buildings, one of which contains isolated areas of fixed, low-level radioactive contamination.



Material stored in the IWCS includes approximately 25,000 cubic yards of radioactive residues, and 235,000 cubic yards of contaminated material resulting from the processing of ores by the Manhattan Engineer District, and later the Atomic Energy Commission. Primary constituents of concern are radium, thorium and smaller amounts of uranium. The IWCS is covered with an interim cap designed to retard radon emissions and rainwater infiltration. There is also radiological contamination of soils throughout the site, but at activity levels considerably below those of the materials stored in the secure IWCS. The U.S. Army Corps of Engineers is tasked with the investigation and remediation of the site. In addition, outside of the federally owned 191-acre site, there are three vicinity properties (labeled E, E', and G), which are being evaluated separately from the NFSS site proper.

**Current Status:** A remedial investigation (RI) of the site is 95% complete. Other than the regular monitoring, sampling to support the RI is complete. A feasibility study is being conducted to evaluate the IWCS, and to develop and evaluate potential alternatives for cleanup of the site. Building 403, originally a laboratory and office building, has been decontaminated and demolished. Building 401, a building used for boron-10 manufacturing and radiological waste storage, has undergone asbestos abatement in preparation for radiological decontamination and demolition. Soil, sediment, air, surface water and groundwater are monitored on a regular basis to assure that contaminants are not migrating from the IWCS into the environment.

### Recent Accomplishments:

- 1) Geophysical Survey of NFSS and Vicinity Property G: The Corps confirmed locations of Interim Waste Containment Structure (IWCS) contents, and identified utility (i.e. sanitary sewer, storm sewer, water lines, etc.) locations. In addition, the Corps identified magnetic anomalies, which were investigated further by trenching. The geophysical survey did not identify any seismic pressure points on the site that would make the site susceptible to earthquakes. The final Gamma Walkover and Geophysical Survey Report has been issued.
- 2) Gamma Walkover Survey of NFSS: The Corps identified isolated locations on NFSS where surface soil radiation levels were in excess of background levels. These areas were investigated further with soil borings. The final Gamma Walkover and Geophysical Survey Report has been issued.
- 3) Excavation of geophysical anomalies on NFSS: Following the geophysical survey, the Corps conducted extensive trenching on the NFSS to confirm the presence of buried materials. The trenching identified a former underground storage tank location in the shops area (north of Building 401), the former lagoon area (east of the IWCS), and the disposal area containing demolition debris from former site buildings. The Corps also located an area where cut vegetation was placed after a past site clearing.

- 3) Excavation of suspected University of Rochester Burial Area on Vicinity Property G: The Corps performed extensive trenching of the suspected burial area location, but did not find any evidence of animal carcasses. However, the Corps did unearth two deteriorated metal garbage cans containing antiquated laboratory debris, such as pipettes, reagent bottles, and microscope slides. Based upon laboratory results, the Corps properly disposed of the drum of lab debris and the adjacent soils.
- 4) Background Groundwater Sampling: The Corps collected groundwater samples from twenty-six (26) groundwater-monitoring wells on the Modern Landfill property in March 2003. This dataset will be compared with groundwater results at NFSS and results will be reported in the Remedial Investigation Report.
- 5) Groundwater Sampling: The Corps collected groundwater samples from on-site groundwater-monitoring wells on the Niagara Falls Storage Site property in May-June 2003. The RI results will be compared to background levels and reported in the Remedial Investigation Report.
- 6) Disposal of Investigation derived waste (IDW): The Corps disposed of 95% of the IDW from Phases I and II of the RI. All IDW was first sampled for both radiological and chemical constituents to assure compliance with waste disposal criteria. The soil IDW was sent to Waste Control Specialists (WCS) in Andrews, TX. The wastewater was sent to the City of Niagara Falls Wastewater Treatment Plant. IDW disposal from Phase III investigations is planned for December 2003, once laboratory results are available.
- 7) Asbestos abatement: The Corps completed 95% of the asbestos abatement in Building 401 (former TNT Boiler and Boron-10 Plant). All waste from this abatement project was radiologically scanned prior to packaging and disposal at U.S. Ecology Idaho in Grand View, Idaho.
- 8) Technical Project Planning (TPP) Meeting: The Corps met with stakeholders in June 2003 to focus the remedial alternatives being consideration for Interim Waste Containment Structure (IWCS) in the Feasibility Study (FS) and discuss Applicable or Relevant and Appropriate Requirements (ARARs) that will establish cleanup goals.
- 9) Final Remedial Investigation Sampling: The Corps installed 10 groundwater-monitoring wells, and collected over 100 surface water, sediment, soil and groundwater samples in September-October 2003 to address data gaps and concluded RI sampling. Data collected during Phases I, II, and III of the RI will be evaluated and summarized in the Remedial Investigation Report. Regular monitoring of the site will continue.
- 10) Additional Geophysical Survey of the IWCS: The Corps performed additional geophysical surveys on the Interim Waste Containment Structure (IWCS) to further evaluate the integrity of the clay dike surrounding the IWCS. The clay dike is designed to contain the cell contents by preventing groundwater infiltration into the IWCS. USACE further evaluated the most likely vulnerable dike areas, based upon document review of the IWCS construction and previous geophysical studies. Additionally, further seismic surveys were conducted to ensure the landfill cap and surrounding clay dike are effectively retarding rainwater and groundwater infiltration, respectively. The final Geophysical report is in draft and will be finalized no later than December 2003.

**What's next:** The U.S. Army Corps of Engineers completed the remedial investigation fieldwork in October 2003. Laboratory results from RI Phases I, II, and III will be compared to background levels and summarized in the Remedial Investigation Report. The Corps will complete a baseline risk assessment to determine the current and future potential risks from site contaminants to human health and the environment. The Corps is also continuing work on the feasibility study for remediation of the site.

### Where can I get more information?

The USACE Buffalo District has established an administrative record for this site. This record contains reports of past investigations and other pertinent site data used in the decision-making process. As new information becomes available, it will be added to the record. This record is available for viewing by the public at the following sites:

**Lewiston Public Library ● 305 South Eighth Street ● Lewiston, New York**  
**Youngstown Free Library ● 240 Lockport Street ● Youngstown, New York**  
**U.S. Army Corps of Engineers (USACE) ● 1776 Niagara Street ● Buffalo, New York**

### The USACE Buffalo District NFSS Web Site:

<http://www.lrb.usace.army.mil/fusrap/nfss/index.htm>

To get more information about NFSS or other FUSRAP sites,  
or to be added to the program's mailing list, contact:

**U.S. Army Corps of Engineers, Buffalo District**

**Public Affairs Office**

**1776 Niagara Street**

**Buffalo, NY 14207**

You may also call toll-free at: 1-800-833-6390

Or e-mail: [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil)