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## Niagara Falls Storage Site Lewiston, NY

**U.S. Army Corps of Engineers  
Buffalo District  
March 2019**

**Building Strong®**

### **Formerly Utilized Sites Remedial Action Program**

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and if necessary, clean up or control sites throughout the United States that were contaminated by activities related to the nation's early atomic energy program. Congress transferred execution of FUSRAP from the U.S. Department of Energy (DOE) to the U.S. Army Corps of Engineers in 1997. When implementing FUSRAP, the Corps of Engineers follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan.

### **Site Description and History**

During 1944 in the towns of Lewiston and Porter, New York, 1,500 acres from the southern portion of the Lake Ontario Ordnance Works TNT production area were transferred to the Manhattan Engineer District (MED). The MED and the Atomic Energy Commission periodically shipped radioactive residues and wastes from uranium ore processing to the area, then known as the Lake Ontario Storage Area, through 1954. Of the original 1,500 acres in the Lake Ontario Storage Area, 191 acres continue to be owned by the federal government and are now known as the Niagara Falls Storage Site (NFSS), while the remaining acreage is owned by other entities and known as vicinity properties of the NFSS.



**Figure 1: NFSS Interim Waste Containment Structure**

During the 1980s, the DOE consolidated the wastes on NFSS and many of the vicinity properties into the Interim Waste Containment Structure (IWCS), a 10-acre structure in the southwest portion of the site (Figure 1). Vicinity Properties E, E Prime, and G were not accessible during the consolidation effort, were not cleaned up at the time, and remain in the program.

Materials stored in the IWCS are uranium ore processing residues or “byproduct material” as defined by Section 11e.(2) of the Atomic Energy Act of 1954, as amended. They include the K-65 residues that contain high concentrations of radium-226, which is the main contaminant associated with uranium ore processing residues. Radium-226 undergoes radioactive decay to produce radon gas. The IWCS was engineered to inhibit radon gas emissions (notably radon-222), infiltration of precipitation, and contaminant migration to groundwater.

### **Corps of Engineers' Activities**

The Corps of Engineers Buffalo District completed a remedial investigation (2007), which included a groundwater fate and transport model; a historical photographic analysis (2009); and a remedial investigation addendum with an updated groundwater fate and transport model (2011) for NFSS. In 2009, to manage CERCLA activities at the NFSS, the Corps of Engineers divided the site into three operable units (OUs): IWCS, Balance of Plant, and Groundwater. The IWCS Operable Unit includes all of the material in the IWCS and is the first operable unit to proceed through the CERCLA process. The Balance of Plant and Groundwater Operable Units are comprised of all of the contaminated material outside of the IWCS.

### **IWCS Operable Unit**

During 2015, the Corps of Engineers released a feasibility study and proposed plan for the IWCS OU. The proposed plan identified Alternative 4: excavation, partial treatment, and off-site disposal of the entire contents of the IWCS as the preferred alternative. This alternative is the selected remedy in the 2019 record of decision for the IWCS OU. Responses to comments received on the proposed plan were included in the record of decision.

### **Balance of Plant and Groundwater Operable Units**

Additional investigations were conducted in the Balance of Plant OU to determine the extent and volume of soil contamination that may require remedial action. Reports outlining the results of these investigations were released in 2013 and 2015.

A feasibility study is being prepared to identify, develop, and evaluate remedial alternatives for the Balance of Plant and Groundwater OUs. The groundwater fate and transport model is being updated for the feasibility study.

### **Vicinity Properties**

Vicinity Properties E, E Prime, and G are still inaccessible and FUSRAP investigations have not been completed.

The DOE recently identified two formerly completed vicinity properties, H Prime and X, as newly eligible for consideration under FUSRAP.

During 2016, the Corps of Engineers released a preliminary assessment for Vicinity Property H Prime, which concluded that there is no imminent threat to human health or the environment on the property, while surface soils, subsurface soils, concrete slabs/foundations, sediment, surface water, and groundwater may have residual impacts from past storage and processing of FUSRAP-related material on the property. The remedial investigation at Vicinity Property H Prime began during the fall of 2018.

A preliminary assessment and site inspection of Vicinity Property X are currently being performed.

### **Site Status**

The Corps of Engineers has overall responsibility for maintaining the Niagara Falls Storage Site and ensuring the IWCS continues to effectively contain the radioactive materials within it for the protection of human health and the environment. The Corps of Engineers maintains an active presence at the site. Environmental monitoring and sampling activities take place quarterly at the site and an environmental surveillance technical memorandum is released annually. The analysis of over 30 years of environmental surveillance data from NFSS confirms the IWCS is performing as it was designed and will continue to be protective as long as it is maintained properly.

### **Administrative Record File**

The administrative record file for the NFSS contains CERCLA-related documentation used in the decision making process for the site. Reports and documents in the administrative record file are available electronically at the following locations:

Town of Lewiston Public Library  
305 South 8th Street  
Lewiston, NY 14092  
Phone: (716) 754-4720

Ransomville Free Library  
3733 Ransomville Road  
Ransomville, NY 14131  
Phone: (716) 791-4073

Youngstown Free Library  
240 Lockport Street  
Youngstown, NY 14174  
Phone: (716) 745-3555

By appointment only  
US Army Corps of Engineers  
1776 Niagara Street  
Buffalo, NY 14207  
Phone: 800-833-6390 (Option 4)

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**U.S. ARMY CORPS OF ENGINEERS – BUFFALO DISTRICT  
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