



SITE CERTIFICATION SUMMARY

This Site Certification Summary provides information about the **Buffalo, New York, Site**. The U.S. Department of Energy Office of Legacy Management is responsible for long-term stewardship of the site under the **Formerly Utilized Sites Remedial Action Program**.

Site Description and History

The Buffalo, New York, Site (formerly known as the Bliss & Laughlin Facility) is located at 110 Hopkins Street in Buffalo, New York. The site consists of a single large building with a floor area of about 12,000 square meters (129,600 square feet) surrounded by about 15,000 square meters (161,460 square feet) of grounds. In 1952, Bliss & Laughlin Steel Company machined and straightened uranium rods under subcontract with National Lead of Ohio for the U.S. Atomic Energy Commission. These activities took place in the Special Finishing Area (SFA), which occupied 380 square meters (3,230 square feet) of the building's floor space. The primary radiological constituent of concern is natural uranium.

Site Remediation Timeline

1992 — The U.S. Department of Energy (DOE) determined that the Buffalo site was eligible for the Formerly Utilized Sites Remedial Action Program (FUSRAP).

1995 — Bechtel National Inc. performed a site characterization survey for DOE.

September 28, 1998 — The U.S. Army Corps of Engineers (USACE) issued the remedial investigation, feasibility study, and proposed plan for site cleanup.

December 1998 — USACE completed pre-remediation surveys.

December 11, 1998 — The Record of Decision (ROD), which presented the selected remedy for the site, was signed and issued.

December 1998 to March 1999 — Decontamination procedures took place at the Buffalo site.

September 30, 1999 — USACE published *Closure Report: Decontamination of the Former Bliss & Laughlin Facility, Niagara Cold Steel, Buffalo, New York*.

Remedial Action

The chosen alternative for site remediation was “decontamination of building.” The ROD concluded that if the selected remedy was implemented and completed, no further action would be required at the site. USACE completed pre-remediation surveys in early December 1998, and decontamination procedures started immediately thereafter and continued through March 1999. Under criteria in Subpart E of 10 CFR 20, a site qualified for unrestricted use if the residual activity that is above background radiation results in a total effective dose equivalent to or does not exceed 25 millirem per year (mrem/yr). To meet the criteria, the average contamination levels in the former SFA should be below 1,500 disintegrations per minute (dpm)/100 square centimeters (cm²); the levels of surface contamination should be below 2,000 dpm/100cm²; and the cleanup level for uranium-238 in soil should be 100 picocuries per gram (pCi/g) or less. See the site [Fact Sheet](#) for more details about the remediation.



Courtesy of the Buffalo History Museum,
Hauser Bob Collection (undated).

Post-Remediation Sampling

The only portion of the Bliss & Laughlin Facility that required remediation was SFA. A post-remediation survey was conducted in SFA per a Final Status Survey Plan, and a Final Status Survey Report was prepared. The locations included in the post-remediation survey were the cement floor, the overhead trusses, the steel supports, Trenches 01 and 02, and the finishing pit. All locations, excluding the steel columns, were found to be contaminated prior to remediation and, therefore, needed to be surveyed following decontamination activities. The steel columns were surveyed in case they were contaminated during remediation.

SFA was subdivided into several survey units, which were selected based on material type and location. Survey methods included surface scans followed by direct measurements (removable and fixed) near the surfaces being decontaminated or surfaces being verified as containing acceptable levels of residual radioactivity (below 25 mrem/yr). Soil samples were also taken in the trenches and the finishing pit.

The maximum total alpha and beta surface activity levels on the trusses measured during the Final Status Survey were 98 dpm/100 cm² and 803 dpm/100 cm², respectively. Maximum alpha and beta surface activity measurements on the concrete floor were 112 dpm/100 cm² and 1,249 dpm/100 cm², respectively. All of these measurements were below the limit of 2,000 dpm/100 cm².

The maximum total alpha and beta surface activity measurements in Trench 01 were 112 dpm/100 cm² and 1,605 dpm/100 cm², respectively. Maximum alpha and beta surface activity measurements in Trench 02 were 84 dpm/100 cm² and 1,219 dpm/100 cm², respectively. Maximum alpha and beta surface activity measurements of the finishing pit were 70 dpm/100 cm² and 119 dpm/100 cm². All of these measurements were below the limit of 2,000 dpm/100 cm². Uranium-234, -235, and -238 concentrations from soil samples in the finishing pit were less than 1 pCi/g, which meets the soil cleanup level of 100 pCi/g of U-238.

For more detailed results of the post-remediation sampling, see the [Site Certification Data Summary Worksheet](#) on page 3. For a detailed map of the site and sampling locations, see the [Site Overview Map](#) on page 4.

Current Site Conditions

After remediation, all Final Status Survey measurements were below required cleanup levels established in the Buffalo ROD. Each survey unit met the release criteria, and no further action was required at the site. As a result, the site was released for unrestricted use.

DOE has been responsible for long-term stewardship of the Buffalo site since 2002. The stewardship requirements and protocols are captured in the Long-Term Stewardship Plan for Completed FUSRAP Sites, which is available on the DOE Office of Legacy Management website (www.energy.gov/lm/buffalo-new-york-site).



ADDITIONAL INFORMATION

Documents related to FUSRAP activities at the Buffalo, New York, site are available on the LM website at Impublicsearch.lm.doe.gov/SitePages/default.aspx?sitename=Buffalo.

For other information on site history or current long-term stewardship activities, please contact us at:

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Buffalo, New York, Site Certification Data Summary Worksheet

Two tables in the Buffalo Closure Report provided the evidence used to certify the site as clean.

Closure Report: Decontamination of the Former Bliss & Laughlin Facility, Niagara Cold Steel, Buffalo, New York (dated September 30, 1999).

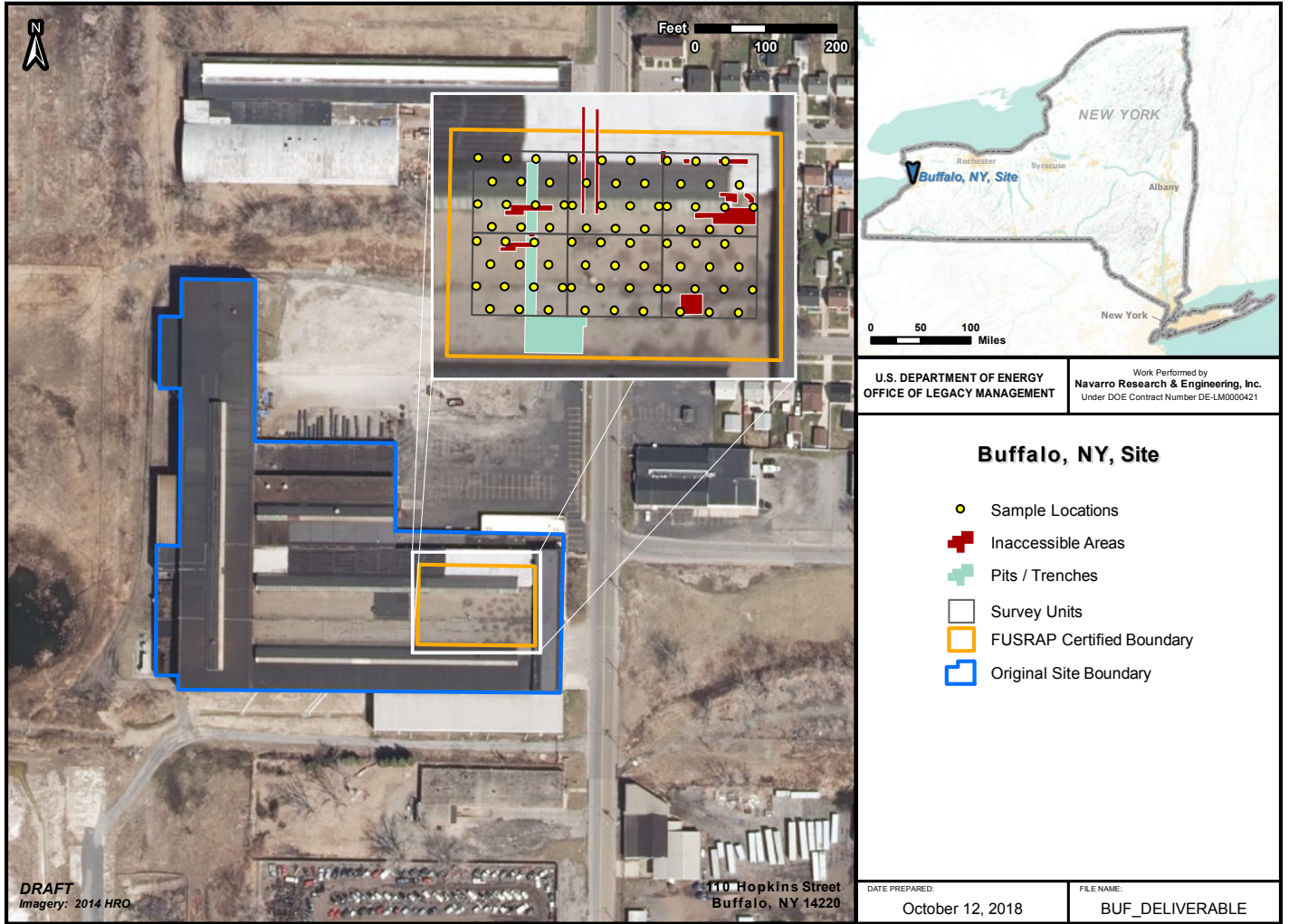
Final Status Survey Results			
Table 4.6 in Closure Report			
Survey Unit	ROD Cleanup Level (dpm/100 cm ²)	FSS Mean Value (dpm/100 cm ²)	FSS Maximum Value (dpm/100 cm ²)
Concrete Floor	2,000	23.13	111.89
Truss Survey 98-073	2,000	26.22	97.9
Truss Survey 98-004	2,000	82.65	153.85
Truss Survey 98-005	2,000	154.72	293.71
Trench 01	2,000	43.03	111.89
Trench 02 Survey 98-046	2,000	66.16	181.82
Trench 02 Survey 98-049	2,000	73.93	209.79
Trench 02 Survey 98-049	2,000	94.99	251.75
Trench 02 Survey 98-071	2,000	47.95	83.92
Pit	2,000	18.10	69.93
Support Columns	2,000	88.22	181.82
Background Concrete	2,000	38.73	69.93
Background Trusses	2,000	46.26	83.92

Note: Though not mentioned in Table 4.6 or in the text of the closure report, this table only shows alpha surface activity in each survey unit. Beta surface activity results are given in the text of the closure report. All beta surface activity measurements were less than the cleanup level of 2,000 dpm/100 cm².

Barringer Laboratories, Inc., Analytical Results for Trench Soil Samples				
Attachment H in Closure Report				
Date Analyzed:	3/17 - 3/19/1999		Method:	908.0
Fraction:	Total		Units:	pCi/g
Analyte: U-234				
Lab ID	Date Sampled	Matrix	Sample ID	Concentration + 2σ
991614-1	14-Mar-99	Soil	B+L-SO-001	13 ± 1
991614-2	14-Mar-99	Soil	B+L-SO-002	1.1 ± 0.4
991614-3	14-Mar-99	Soil	B+L-SO-003	1.2 ± 0.5
991614-4	13-Mar-99	Soil	B+L-SO-004	4.9 ± 0.9
991614-5	13-Mar-99	Soil	B+L-SO-005	2.6 ± 0.9
991614-6	13-Mar-99	Soil	B+L-SO-006	4.9 ± 0.7
Analyte: U-235				
991614-1	14-Mar-99	Soil	B+L-SO-001	0.2 ± 0.3
991614-2	14-Mar-99	Soil	B+L-SO-002	0.0 ± 0.2
991614-3	14-Mar-99	Soil	B+L-SO-003	0.0 ± 0.2
991614-4	13-Mar-99	Soil	B+L-SO-004	0.1 ± 0.3
991614-5	13-Mar-99	Soil	B+L-SO-005	0.0 ± 0.4
991614-6	13-Mar-99	Soil	B+L-SO-006	0.0 ± 0.2
Analyte: U-238				
991614-1	14-Mar-99	Soil	B+L-SO-001	10 ± 1
991614-2	14-Mar-99	Soil	B+L-SO-002	1.3 ± 0.3
991614-3	14-Mar-99	Soil	B+L-SO-003	1.2 ± 0.4
991614-4	13-Mar-99	Soil	B+L-SO-004	2.5 ± 0.6
991614-5	13-Mar-99	Soil	B+L-SO-005	1.2 ± 0.7
991614-6	13-Mar-99	Soil	B+L-SO-006	4.4 ± 0.6

Note: The soil cleanup level for U-238 was 100 pCi/g.

Buffalo, New York, Site Map



U.S. DEPARTMENT OF ENERGY
OFFICE OF LEGACY MANAGEMENT

Work Performed by
Navarro Research & Engineering, Inc.
Under DOE Contract Number DE-LM0000421

Buffalo, NY, Site

- Sample Locations
- + Inaccessible Areas
- + Pits / Trenches
- Survey Units
- FUSRAP Certified Boundary
- Original Site Boundary

DATE PREPARED:
October 12, 2018

FILE NAME:
BUF_DELIVERABLE

\\imgis\Project\WorkArea\Sites\NY\Buffalo\Project\WorkArea\pin\elm\BUF_DELIVERABLE.mxd 10/12/2018 Source: Closure Report, Decontamination of the Former Bliss & Laughlin Facility, Buffalo, New York (USACE)