

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER (FFA/CO) NEW SITE IDENTIFICATION (NSI)

Site Title: Buildings MFC-767 and -795	Site Code: ANL-67 Document number: NSI-26007
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PART A

1. Site Status: Potential Existing

If a potential site, record the date entered into the Long Term Stewardship Tracking System:
June 5, 2012

2. Description of Site and Location:

Potential new Site Argonne National Laboratory (ANL) -67 consists of the buried remains of Buildings Materials and Fuels Complex (MFC) -767 (Experimental Breeder Reactor II [EBR-II] Reactor Building) and -795 (Cover Gas Cleanup System Building). Decontamination and decommissioning (D&D) activities of the buildings were completed in 2009 and 2010. Both buildings contain a limited quantity of regulated asbestos-containing material (RACM) remaining in the belowgrade portions of the buildings. Figure 1 shows the locations of former Buildings MFC-795 and MFC-767.

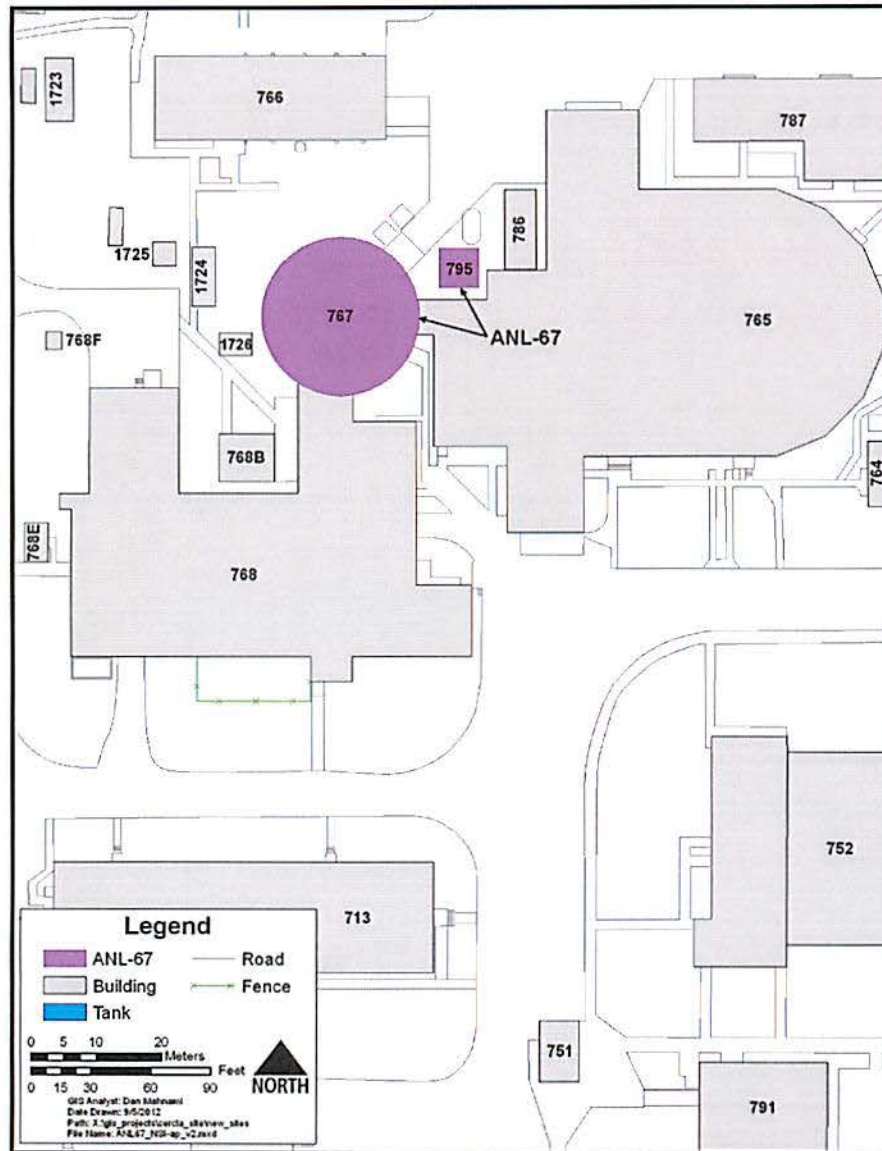


Figure 1. Location of Site ANL-67 including former Buildings MFC-767 and -795.

During summer 2009, final D&D activities were initiated for the MFC-767 building and the EBR-II vessels within it: the EBR-II reactor

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primary tank and a baffle tank. Activities performed included removal of shielding lead, circuit boards, polychlorinated biphenyl (PCB) ballasts, ozone-depleting substances, and asbestos present within the building and exterior to the biological shield. Components containing elemental sodium and sodium-potassium alloy were treated in accordance with the closure plan conforming to the Idaho Hazardous Waste Management Act (HWMA 1983)/Resource Conservation and Recovery Act (42 USC § 6901 et seq.).

Celotex asbestos-containing insulation surrounds the primary tank within MFC-767. The insulation is located within the radial blast shield and the radial biological shield. An estimated 1,521 ft² of asbestos-containing material is located in the blast shield, and an estimated 216 linear ft of asbestos-containing material is located within the biological shield. The blast shield is 26-3/4 in. thick and is composed of three layers of material separated by layers of steel plate. The blast shield surrounds the entire primary tank and baffle tank. The 8-in.-thick outer layer of the blast shield is composed of asbestos-containing material. The biological shield is a 6-ft-thick concrete structure that surrounds the blast shield with thirty-six 8-in. air ducts that penetrate through the shield. Each air duct is wrapped with 1/4-in.-thick aluminum-covered asbestos insulation. As specified in the *Action Memorandum for the EBR-II Final End State* (DOE-ID 2010), concrete will be placed above the asbestos-containing material.

In 2010, D&D of Building MFC-795 was completed in accordance with the *Action Memorandum for General Decommissioning Activities Under the Idaho Cleanup Project* (DOE-ID 2009). The activities consisted of removing all shielding lead, circuit boards, PCB ballasts, and suspect radiologically contaminated exhaust ductwork. Asbestos was removed from piping in the abovegrade portions of the building. Following removal of the hazardous wastes from the building and the asbestos from the abovegrade portions of the building containing asbestos, the remaining abovegrade portions of the building were demolished and disposed of as nonhazardous, nonradiological, industrial waste. However, three tanks remain in the belowgrade portions of the building. One of the tanks (i.e., a charcoal absorber tank) is covered with approximately 69 ft² of insulation with RACM. The charcoal absorber tank is 2 ft in diameter × 10 ft in length, and the tank is situated vertically on a 2-ft-tall stand within a concrete vault that extends 18 ft below grade. The top of the tank is located approximately 6 ft below grade. The other two tanks (i.e., a surge tank and a cold box) do not contain asbestos. The asbestos-containing material was covered with a soil cover above the top of the charcoal absorber tank.

On February 9, 2011, CH2M-WG Idaho, LLC, received official approval from the U.S. Environmental Protection Agency for its request to designate the combined sites of former Buildings MFC-795 and MFC-767 as an asbestos landfill. The Idaho Department of Environmental Quality had previously approved this request. Therefore, it is recommended that a new Federal Facility Agreement and Consent Order (DOE-ID 1991) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.) site be created to document that asbestos remains at the former location of Buildings MFC-767 and -795, and that this site be added to the *INL Site-Wide Institutional Controls and Operations and Maintenance Plan* (DOE-ID 2012).

Because of the presence of asbestos at the ANL-67 site, it is recommended for inclusion as a new CERCLA site. Institutional controls for soil sites, as documented in Revision 7 of the *INL Site-Wide Institutional Controls and Operations and Maintenance Plan* (DOE-ID 2012), will be implemented as an interim measure to control the site pending the final remedy decision. The remedy decision will be documented when Part B of this new site identification (NSI) form is completed. As shown on this NSI form, the current boundary of the site consists of the former footprint of Buildings MFC-795 and MFC-767.

References

42 USC § 6901 et seq., 1976, "Resource Conservation and Recovery Act (Solid Waste Disposal Act)," United States Code, October 21, 1976.

42 USC § 9601 et seq., 1980, "Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund)," United States Code, December 11, 1980.

DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory*, Administrative Record No. 1088-06-29-120, U.S. Department of Energy Operations Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.

DOE-ID, 2009, *Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project*, DOE/ID-11293, Rev. 1, U.S. Department of Energy Idaho Operations Office, January 2009.

DOE-ID, 2010, *Action Memorandum for the EBR-II Final End-State*, DOE/ID-11426, Rev. 0, U.S. Department of Energy Idaho Operations Office, April 2010.

DOE-ID, 2012, *INL Site-Wide Institutional Controls, and Operations and Maintenance Plan for CERCLA Response Actions*, DOE/ID-11042, Rev. 7, U.S. Department of Energy Idaho Operations Office, April 2012.

HWMA, 1983, "Hazardous Waste Management Act of 1983," Idaho Code Sections 39-4401 et seq., 1983.

3. Is the site a solid waste management unit? Yes No

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4a. Potential Site Recommendation

- Do NOT include as a new FFA/CO site. This site does NOT warrant further investigation, and does NOT meet the criteria for acceptance (i.e., no evidence of a release of a CERCLA hazardous substance). The site should NOT be included under FFA/CO Action Plan.
- Include as a new FFA/CO site. This site DOES meet the criteria for acceptance (i.e., evidence of a release of a CERCLA hazardous substance), DOES warrant further investigation, and SHOULD be included under the FFA/CO Action Plan (complete the remainder of Part A).

Additional sampling recommended?

- Yes – Submit Part A .
- No – Proceed to Part B.

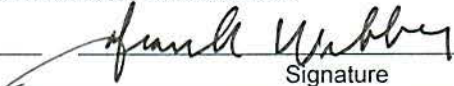
4b. Existing Site Recommendation

Additional sampling recommended?

- Yes – Submit Part A.
- No – Proceed to Part B.

4c. Idaho Cleanup Project Environmental Restoration Director Concurrence:

Frank L. Webber
Name (printed)


Signature

12/3/2012
Date

435.36
11/06/2012
Rev. 13
Use with MCP-3448

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PART A

5. FFA/CO Remedial Project Manager (RPM) Concurrence:

DOE-ID FFA/CO RPM: Concur with recommendation. Do not concur with recommendation.
EPA and DEQ concurrence required? Yes No

Kevin O'Neill *Kevin O'Neill* 12/3/12
Name (printed) Signature Date

Explanation:

EPA FFA/CO RPM: Concur with recommendation. Do not concur with recommendation.

Name (printed) Signature Date

Explanation:

DEQ FFA/CO RPM concurrence: Concur with recommendation. Do not concur with recommendation.

Daryl F. Koch *Daryl F. Koch* 12/11/2012
Name (printed) Signature Date

Explanation:

435.36
11/06/2012
Rev. 13
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PART A

5. FFA/CO Remedial Project Manager (RPM) Concurrence:

DOE-ID FFA/CO RPM: Concur with recommendation. Do not concur with recommendation.

EPA and DEQ concurrence required? Yes No

Karen O'Neill Name (printed) [Signature] Signature 12/3/12 Date

Explanation:

EPA FFA/CO RPM: Concur with recommendation. Do not concur with recommendation.

Dennis Faulk Name (printed) [Signature] Signature 1/7/13 Date

Explanation:

DEQ FFA/CO RPM concurrence: Concur with recommendation. Do not concur with recommendation.

Name (printed) Signature Date

Explanation: