

# Brookhaven National Laboratory



The High Flux Beam Reactor exhaust stack at Brookhaven National Laboratory.

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## Overview

The High Flux Beam Reactor (HFBR) at the Brookhaven National Laboratory (BNL) in Upton, New York, was a research reactor that operated from 1965 to 1996. The mission of the HFBR was to provide a source of neutrons for multidisciplinary scientific research in materials science, chemistry, biology, and physics. In April 2000, the Office of Environmental Management developed a Memorandum of Agreement with the Offices of Science (SC) and Nuclear Energy (NE) to transfer management and ownership of the reactor to EM.

In February 2009, EM and the U.S. Environmental Protection Agency, Region 2, signed the Final Record of Decision (ROD) for the reactor. EM conducted cleanup and demolition activities at BNL from the 1990s until 2013. While two of the reactors and associated facilities were decommissioned, left behind was the 100-meter exhaust stack (Building 705). The scope of this ROD included remedial activities required to be completed by the end of 2020. All of these actions, except for the removal of the HFBR Exhaust Stack, have been completed. Upon completion of D&D, the facility will be transferred back to SC for long-term surveillance and maintenance.

## **Cleanup accomplishments include:**

- **Completed D&D of the Brookhaven Graphite Research Reactor (BGRR).**
- **Completed soil and groundwater remediation activities.**

## **Planned Cleanup Scope 2020-2030**

DOE will complete its remaining workscope at Brookhaven in 2020. By the end of 2020, work will be completed to remove Building 705, the HFBR Exhaust Stack. This 100-meter tall stack, initially constructed to provide an elevated exhaust of the BGRR primary and secondary cooling air, is now almost 70 years old, and is no longer needed. Demolition activities include isolation of utilities (e.g., electrical service), demolition and removal of the stack to the pedestal, final status survey, independent verification survey, packaging, transportation, and disposal of the waste, and restoration of the affected site.

## **Remaining Cleanup Scope Post-2030**

There are no post-2030 plans associated with Brookhaven.