The United States Department of Energy
announces the availability of the Record of Decision relating to the
Brookhaven National Laboratory High Flux Beam Reactor

The U.S. Department of Energy (DOE) announces the availability of a document relating to the environmental restoration activities at Brookhaven National Laboratory (BNL). The *Final Record of Decision for Area of Concern (AOC) 31: High Flux Beam Reactor (HFBR)* is available at the locations listed below and also electronically at http://www.bnl.gov/hfbr/.

AOC 31 comprises the HFBR complex and the Waste Loading Area (WLA).

The HFBR complex consists of a domed reactor confinement building, several smaller ancillary buildings, underground utilities and piping, and the distinctive red-and-white striped exhaust stack.

The WLA is an area of radiologically contaminated soil along the eastern boundary of the Former Hazardous Waste Management Facility (FHWMF). It was transferred to the HFBR in September 2005.

This Record of Decision (ROD) documents the final cleanup action (called the remedy) selected by DOE and the Environmental Protection Agency (EPA). The New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), and Suffolk County Department of Health Services (SCDHS) concur with the selected remedial action.

The HFBR was a research reactor that operated at BNL between 1965 and 1996. Used solely for scientific research, the HFBR provided neutrons for experiments in materials science, chemistry, biology, and physics. During a routine maintenance shutdown in 1996, tritium was found in the groundwater south of the reactor. Investigations revealed that the source of the tritium was a small leak in the pool where spent reactor fuel was stored. HFBR operations were suspended and in 1999 the DOE announced it was permanently closing the reactor.

The final remedy incorporates many completed interim actions. They include: removal and disposal of HFBR fuel and primary coolant; shipment of equipment for reuse at other facilities; cleanup and transfer of the Cold Neutron Facility for reuse; dismantling of many ancillary buildings in the HFBR complex; cleanup of the WLA; and removal and disposal of the reactor control rod blades and beam plugs. The remedy also includes a number of near-term actions: dismantling of the remaining ancillary buildings; removal of contaminated underground utilities and piping; and preparation of the confinement building for safe storage. The segmentation, removal, and disposal of the remaining HFBR structures, systems and components (reactor vessel, thermal shield, biological shield, and others) after a safe storage decay period (not to exceed 65 years) are also part of the final remedy. The 65-year decay period allows for the natural reduction of the high radiation dose rates to a point where conventional demolition techniques can be used for the dismantling of the large activated components. The decommissioning of the HFBR is estimated to cost $144 million.

The selected remedial action was rated high in all five *Comprehensive Environmental Response, Compensation and Liability Act* (CERCLA) criteria for which relative

ratings were established: overall protection of human health and the environment, compliance with applicable or relevant and appropriate requirements, long-term effectiveness, short-term effectiveness, and implementability. It was presented to the public for review and comment from January 10 through March 17, 2008. The ROD contains a Responsiveness Summary, which documents public comments on the proposed remedial actions. It also contains DOE responses to those comments and changes made as a result of the comments.

Environmental remediation at the Laboratory is carried out under the requirements of CERCLA. Remediation work is conducted under an Interagency Agreement among DOE, EPA, and NYSDEC. The DOE owns BNL and funds cleanup at the site.

Located in Upton, N.Y., BNL is classified as an Inactive Hazardous Waste Site by NYSDEC. BNL is also on EPA's National Priorities List.

The *Final Record of Decision for Area of Concern 31: High Flux Beam Reactor (HFBR)* is available at the following locations:

BNL Research Library
Building 477A
Upton, NY 11973
(631) 344-3483 or
(631) 344-3489

U.S. EPA, Region II
Records Room
290 Broadway, 18th Floor
New York, NY 1007-1866
(212) 637-4308

Stony Brook University
Melville Library
Special Collections and University Archives
Room E-2320
Stony Brook, NY 11794
Phone: (631) 632-7119

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