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Brookhaven Graphite Research Reactor (BGRR) Project Completion

John Sattler

Federal Project Director

Office of Environmental Management

U.S. Department of Energy

BNL Community Advisory Council

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BGRR D&D Project History

- World's first reactor for peacetime research
- Operated 1950-1968; fuel removed by 1972
- DOE EM assumed responsibility for D&D in February 1999
- Three main project components, as outlined in the BGRR Record of Decision (January 2005):
 - Remove the graphite pile
 - Construct an engineered cap
 - Remove the bioshield

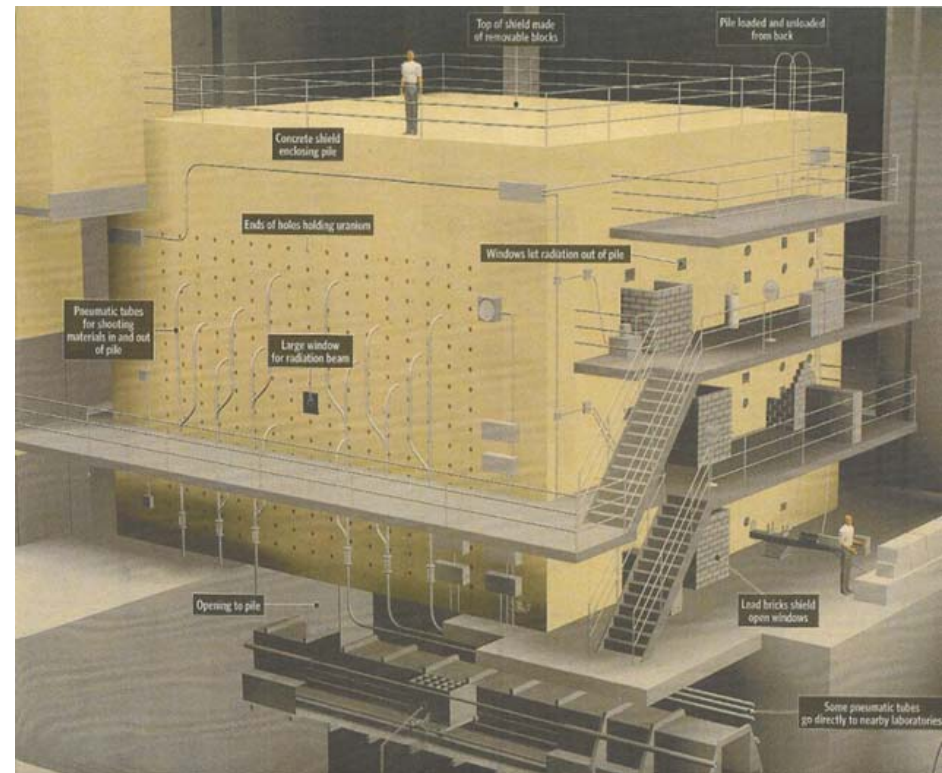


Illustration of the BGRR pile and bioshield



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Graphite Pile Removal

- 25-foot cube with ~60,000 individual graphite blocks
- Removal began December 2009, ended May 2010
- Remote tooling used to remove the graphite
- Removed:
 - More than 40,000 cubic feet of waste



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Engineered Cap

- Prevents water intrusion into contaminated soils around B701
- Has multiple layers, an asphalt surface, covers 32,400 square feet
- Installed in four sections between January and June 2011
- Five monitoring wells installed



Installing the high-density polyethylene liner



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Bioshield Removal

- Bioshield Enclosure:
 - 55' Long
 - 37' Wide
 - 33' High
- Bioshield Wall:
 - 6" interior steel
 - 4' concrete
 - 3" exterior steel
- August 2011:
 - Excavator introduced
- May 2012:
 - Removal done
- Removed:
 - More than 125,000 cubic feet of waste



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The BGRR today



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Next Steps

- Complete waste shipments (June 30)
- Complete project documentation, including close-out report
- Transition to long-term surveillance and maintenance
- Office of Environmental Management transfer to Office of Science (October 2013)



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