HFBR and BGRR Decommissioning Projects

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HFBR Update

- Control rod blades
- Beam plugs
- Next steps
HFBR Control Rod Blades

- **8 main blades**
  - Removed from reactor vessel
  - Loaded into Shipping Cask CNS 1-13G
  - Shipped to Nevada Test Site (NTS) for disposal

- **8 auxiliary blades**
  - Removed from reactor vessel
  - 6 Loaded into shipping cask CNS 1-13G and shipped to NTS
  - 2 Loaded into shipping cask CNS 1-13C along with rod followers awaiting shipment to NTS

- Excellent agreement between measured dose rates and values predicted by activation analysis
Auxiliary CRB Removal from Reactor Vessel
Shipping Cask being Moved Close to Fuel Pool
Shipping Cask being Moved Into Fuel Pool
Shipping Cask with CRBs in Fuel Pool
HFBR Vessel After CRB Removal
Moving Shipping Cask with CRBs to Transport Trailer
Shipping Cask with CRBs Ready for the Road
HFBR Beam Plugs

- 9 beam plugs
  - Beam plug with highest radiological inventory removed from HFBR
  - Loaded into Shipping Cask CNS 3-55
  - Shipped to NTS for disposal
  - Arrived safely at NTS February 23
  - 8 remaining beam plugs to be removed and shipped to NTS/Energy Solutions, Utah
Beam Plug H-9 Being Loaded Into Shipping Cask CNS 3-55
Preparation of CNS 3-55 for Transport
CNS 3-55 Ready to Roll
Part of the HFBR Crew
Next Steps

- Remove contaminated water from reactor vessel and fuel canal
- Solidify using polymer
- Ship to Energy Solutions, Utah for disposal
BGRR Update

- Preparations continue for graphite pile and bioshield removal
Asbestos Abatement

Asbestos containing floor tiles were removed from all elevations in contact with the graphite pile.
Elevator Demolition

The elevator demolition commenced August 2008 and was completed December 2008.
Balcony Removal

Three balconies attached to the pile had to be removed to install the cranes and CCE.
Conduit and Miscellaneous Services Removal

Numerous conduits and service piping were removed for CCE installation.
New Steel Installed in Elevator Shaft to Support New Cranes
Columns Erected to Support New Cranes
Contamination Control Enclosure
HEPA Ventilation System

One of the four HEPA units being installed to provide filtration of radioactive airborne particulates during graphite pile removal.
HEPA Ventilation Ductwork
HEPA Ventilation Exhaust Ducts

HEPA ventilation exhausts ducts waiting to be connected to blower trailer
Graphite Pile Removal Control Room

Excavator and gantry crane will be operated remotely from this location
Next Steps

- Install Crane Girders and Trusses
- Install Excavator Crane
- Install Gantry Crane
- Install CCE
- Complete Installation of Ventilation System
- Test and Approve System for Graphite and Bioshield Removal