

BGRR Graphite Removal



Siva Kumar
Regulatory Affairs Manager
Environmental Restoration Projects

BROOKHAVEN
NATIONAL LABORATORY
a passion for discovery

Community Advisory Council
April 8, 2010

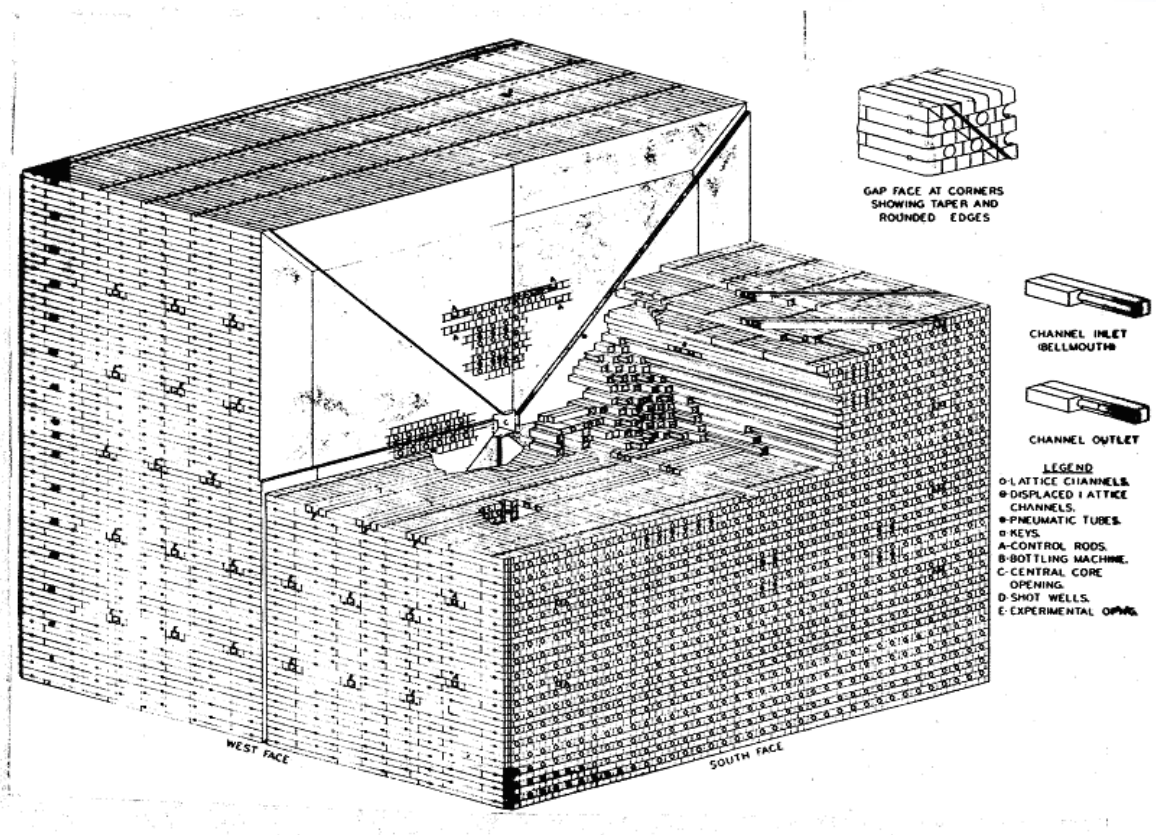


Graphite Pile Removal – Status Update

- Installation of equipment – Completed
- Management Self Assessment – Completed
- BSA Readiness Assessment – Completed
- DOE Readiness Assessment – Completed
- Authorization for graphite removal – Issued
- Graphite removal and shipment – Commenced
(February-May 2010)

BGRR Graphite Pile Details

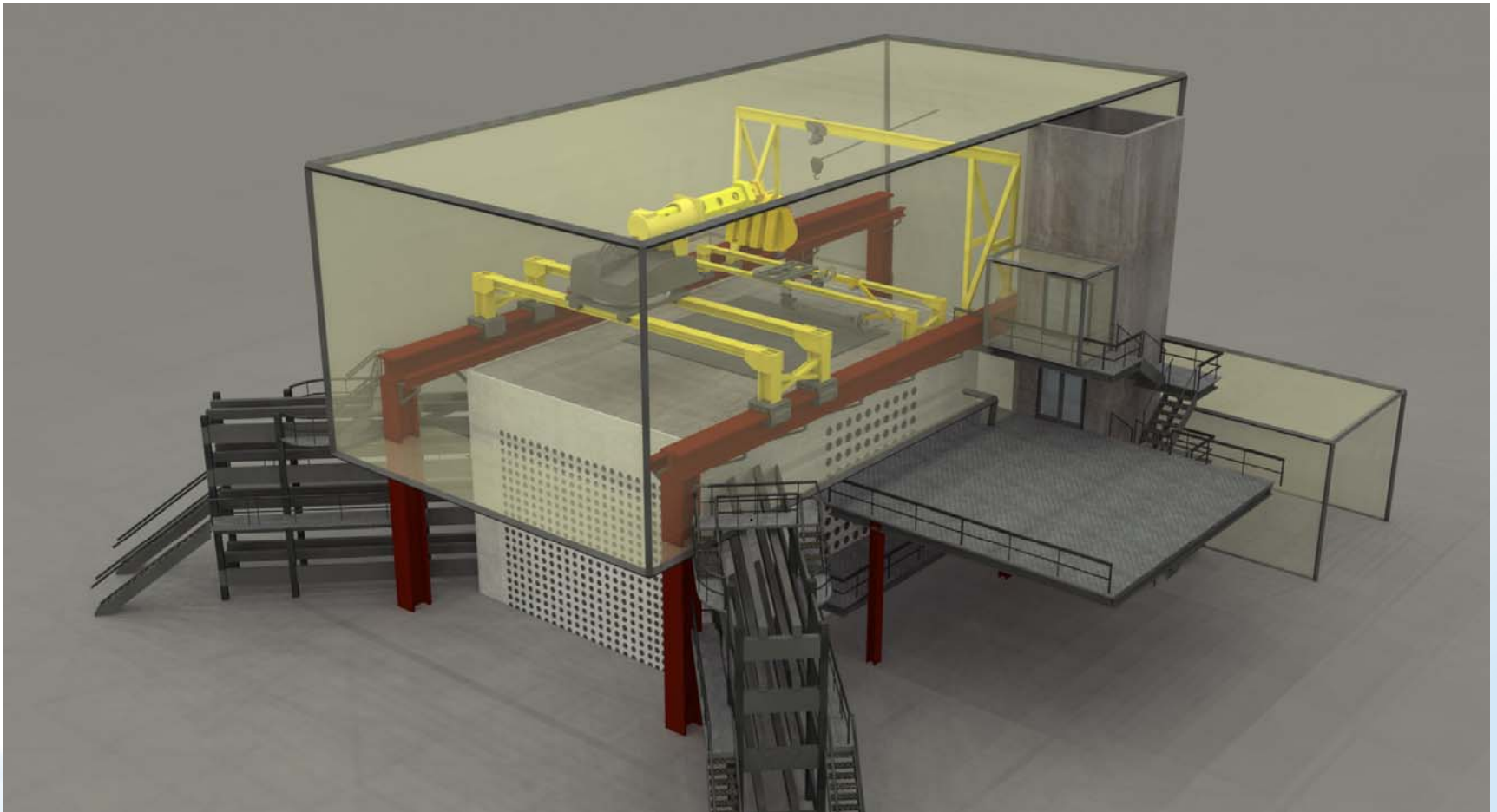
- 25' Cube
- 1.4 million lb
- 60,000 graphite blocks - 4" x 4" square by up to 45" long
- Total Activity 787 Ci
 - Predominantly Carbon-14
- Radiation level of an "average" graphite block
 - ~9 mR/hr contact
 - ~2 mR/hr @ 1 foot
 - ~0.4 mR/hr @ 3 feet



Remote Manipulator for Graphite Removal



Contamination Control Enclosure (CCE)



Remote Controls



Graphite Removal



Graphite Removal (V)



Graphite Removal

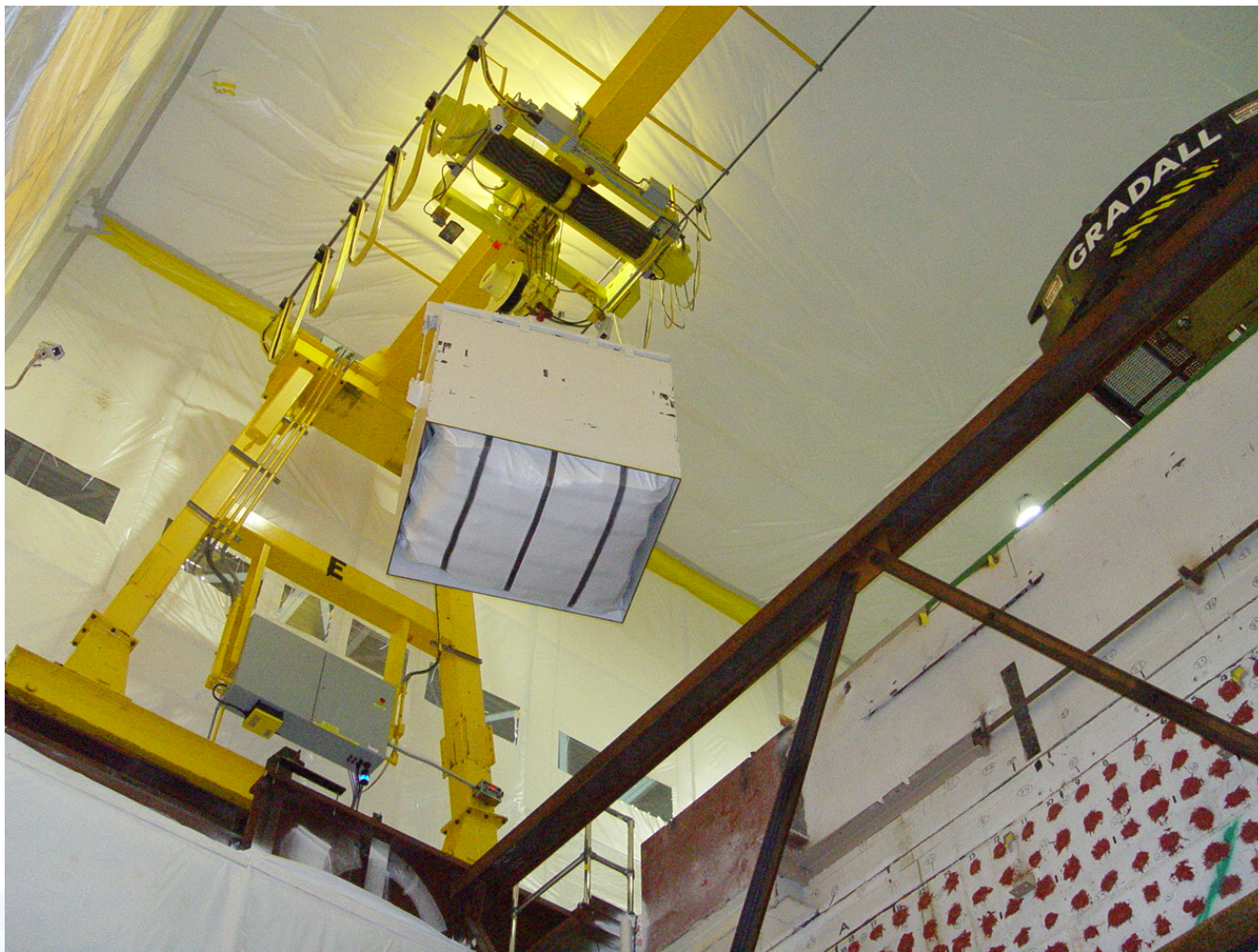


- Good use of fixative application for dust and contamination control

Transfer of Graphite to Supersack (V)



Moving Supersack with Graphite to Industrial Package (IP) – 1 Box (Dry Run)



IP-1 Box Sealed and Clipped



- ~ 250 boxes of graphite
- Typical box of graphite:
 - ~ 65 mR/hr on contact
 - ~ 0.8 mR/hr at 20 feet

First Graphite Shipment



First Graphite Shipment



Look Ahead

- Complete removal of BGRR graphite pile
- Complete shipment of graphite to DOE's Nevada Test Site
- Removal of biological shield
- Installation of engineered cap