

1221261



# River Corridor Closure Project

One Team for Safe, Visible Cleanup of the River Corridor

300-2916:

December 2011

## River Corridor's 324 Building B-Cell Contamination

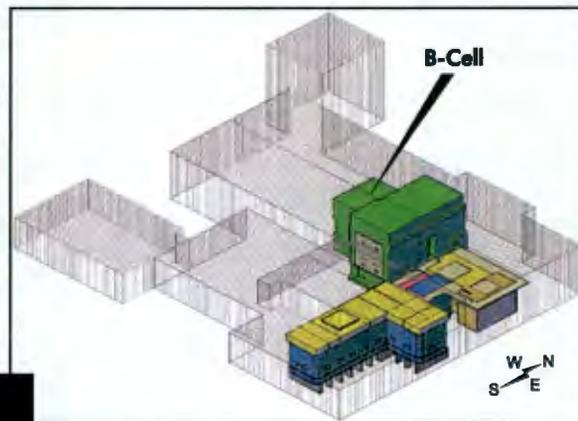
Highly contaminated radioactive material below building poses latest challenge for Hanford's River Corridor Closure Project

### Background

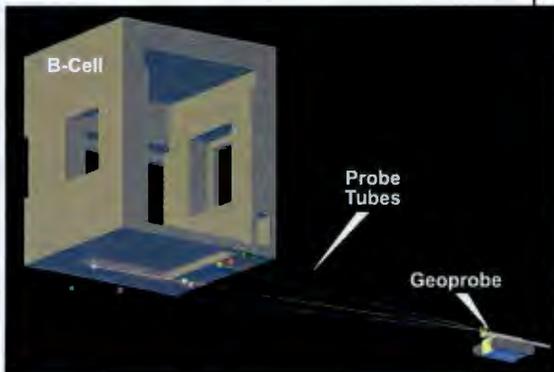
For nearly 60 years, the 300 Area was the center of Hanford's radiological research and nuclear fuel fabrication. Located along the Columbia River and just 1.5 miles north of the city of Richland, the past research and fabrication work left behind highly contaminated facilities and waste sites. The discovery of highly radioactive contamination below the 324 Building makes it the most hazardous facility that Washington Closure will deactivate, demolish and clean up along Hanford's river corridor.



The 324 Building is one of the largest and most hazardous facilities along the Columbia River. During experiments in B-Cell, radioactive materials leaked to the soil below the hot cell.



RECEIVED  
AUG 06 2013  
EDMC



Instrument probes show the contamination remains below the hot cell and above groundwater. Radiation levels are extremely high and direct exposure for a few minutes would be fatal. Readings in the soil were measured at levels up to 8,900 R/hr.



Soil samples directly below B-Cell were retrieved in June 2011. Criteria for selecting cleanup options are under review.

### Project Needs

Washington Closure Hanford is currently seeking proven remedial technologies that will allow for the safe removal and disposal of highly radioactive soils beneath the 324 Building.

The removal methods must avoid exposure of workers or the environment to unacceptable levels of either direct radiation or airborne radioactive material. The final retrieved waste form must be transported and disposed at the Environmental Restoration Disposal Facility or Central Waste Complex, on the Hanford Site, in compliance with shipping and waste acceptance criteria.

To receive additional information from Washington Closure Hanford please contact:

J. Gilbert, (509) 308-1003, or  
S. Marske, (509) 420-3579



U.S. Department of Energy

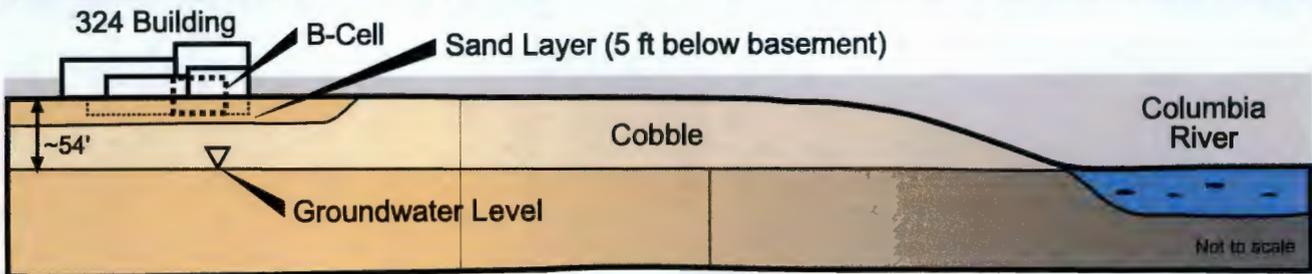
## Protecting the Columbia River

E1111060\_21

300-FF-2

## B-Cell Soil Contamination

Sampling has verified that B-Cell soil contamination levels remain above groundwater



Probes were installed below the hot cell where highly contaminated research materials leaked into the soil.

- High dose measurements follow the plane of the B-Cell floor expansion joint
- Little or no contamination detected beneath center of cell or outside cell footprint
- Soil above groundwater measured at background level

