DOE NEWS

CONTACT:
Colleen French, DOE, 509-373-5985
Geoff Tyree, Fluor Hanford, 509-372-1145

FOR IMMEDIATE RELEASE:

DOE BEGINS TRANSFER OF RADIOACTIVE SLUDGE FROM HANFORD BASIN

Department of Energy (DOE) contractor Fluor Hanford today began moving radioactive sludge from the K East Reactor basin to the K West Reactor basin at Hanford. The project is an integral part of DOE's K Basins cleanup.

"The capture and transfer of this sludge proved to be much more difficult and complex than anyone first estimated," said Keith A. Klein, DOE Richland Operations Office Manager. "Reaching this stage is the biggest step for the K Basins cleanup project since we started removing the spent fuel in 2000. Getting the material into containers and out of the basin gets us in position to take down the basin itself so we can clean up the contamination underneath."

The K Basins sit about 400 yards from the Columbia River. Prior to the start of cleanup, the water-filled basins held about 2,300 tons of spent nuclear fuel as well as debris and small contaminants like sand and concrete particles that formed a layer of "sludge" on the basin floors. Removal and drying of all spent nuclear fuel was completed in 2004, and workers have now nearly finished vacuuming the estimated 55 cubic yards of sludge in the K East Basin sludge into underwater containers.

Today, workers pumped the first of that sludge through a specially designed flexible pipeline to underwater containers in the K West Basin, about a half mile away. Called a "hose-in-hose" system, the pipeline consists of a central line surrounded by a second line designed to contain the material should there be a breach of the main hose. Pumping stations along the 2,500-feet of pipeline keep the material moving. Workers tested the system over the last several months by transferring more than 100,000 gallons of water between the basins. The radioactive sludge will be transferred as five separate batches over the next five months.

"We are encouraged to see that the final step in removing sludge from the K-East Basin is underway," said Larry Gadbois of the Environmental Protection Agency's Hanford project. "Consolidation and transfer of K East sludge is an essential step towards meeting the May 2007 milestone to complete sludge removal from the basin. Removing the sludge, and the soils underlying the basin, is an important step in reducing risks to the Columbia River."

Vacuuming the sludge into containers was a complicated process. Workers stood on grates suspended above the 20-foot-deep basin and manipulated equipment at the end of long poles while using underwater cameras to guide their work. Visibility problems and an unexpectedly large amount of debris encountered while vacuuming the spent fuel pool often made progress slow. Workers alternated between vacuuming radioactive sludge and about removing about 150 tons of contaminated debris from the basin.

"The conditions in the K East Basin and the characteristics of the sludge presented a formidable challenge," said Pete Knollmeyer, vice president of the K Basins Closure Project for contractor Fluor Hanford. "The sludge ranged from flighty to hard-packed. The water was murky. Airborne radiation levels inside the basin would fluctuate as we conducted work. Project staff, workers and engineers worked side-by-side to adapt to changing conditions to finish this challenging project. Seeing the sludge now being transferred safely into the K West Basin is a real testament to their dedication."

Storing the sludge in underwater canisters in the K West Basin will provide radiation shielding until a treatment system is built to process the sludge for disposal. Removing the sludge from the K East Basin clears the way for removing contamination from the concrete walls and floors of the spent fuel pool. Cleanup plans call for draining the basin, tearing down the facility, and removing the underlying contaminated soil.

###