

The logo for DOE NEWS. The letters 'DOE' are in a large, blue, serif font, and 'NEWS' is in a smaller, blue, sans-serif font. The text is positioned to the right of a series of horizontal blue lines that extend across the top of the page.

**FOR IMMEDIATE RELEASE:**  
October 26, 2005

## **First Radioactive Sludge from K Basins Treated for Disposal**

Workers today began treating the first radioactive sludge retrieved from a spent nuclear fuel pool at the U.S. Department of Energy's Hanford Site in southeast Washington State.

The sludge was removed from a section of Hanford's K East Basin, one of two water-filled pools about 400 yards from the Columbia River. The million-gallon basin once contained hundreds of tons of spent nuclear fuel that had corroded over the decades, resulting in approximately 42 cubic meters of sludge covering the floor of the basin. Sludge is made up of fragments of concrete from the basin walls, sand blown in from the desert, and fuel corrosion products.

Approximately four cubic meters of sludge were retrieved from an offshoot of the basin, called the North Load Out Pit. During Hanford's plutonium-production era, the North Load Out Pit was used to load fuel irradiated in the K East Reactor into railroad cars for the trip to processing facilities on Hanford's Central Plateau. Most recently, the pit was used to hold "backwashed" sand from the basin's water-filtration system. The sludge from this area is less radioactive than the sludge in the rest of the basin and was identified for earlier treatment. After the sludge was pumped into large containers, crews with contractor Fluor Hanford transported the containers to Hanford's T Plant canyon, where specialized equipment will be used to process the material.

“Getting to this point in the project is significant,” said Keith A. Klein, manager of DOE’s Richland Operations Office. “This is a small portion of the K Basins sludge by volume, but working with the material will teach us a lot about safely treating the balance of it.”

Over the next several months, workers will be measuring and mixing the sludge with grout in 55-gallon drums. The grout, a cement-like material, is used to solidify and encapsulate the sludge for permanent disposal.

“The key to starting this important project has been the involvement of the workforce from the very beginning,” said Dale McKenney, Fluor Hanford vice president of Waste Stabilization and Disposition. “The workers who will operate the system had direct input on the design and layout of the equipment. They visited the fabrication shop and offered improvements to the engineering team. They also practiced on the equipment with non-radioactive, non-hazardous substitutes for the sludge to gain hands-on experience in a clean environment.”

The process will result in up to 300 drums of treated waste, which will be temporarily stored at T Plant while they are evaluated for disposal at an onsite or offsite facility. The disposal pathway will be based on the characteristics of the treated waste and the acceptance criteria for the selected disposal facility.

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Note to Editors:

For the first time in many years, DOE has made arrangements for reporters to enter Hanford’s T Plant to observe some of the sludge stabilization work underway.

T Plant was Hanford’s original canyon facility and processed the plutonium from B Reactor used to end World War II. Continuing its service some 60-years later, T Plant is a key facility on the Hanford Site and the oldest nuclear facility in the world still operating with a nuclear mission.

**What:** Access to Hanford’s T Plant to observe sludge stabilization

**When:** Tuesday, Nov. 1, 9:00 a.m. Meet at the Federal Building in Richland (825 Jadwin Avenue) for badging. Expect to return to the Federal Building by 1 p.m.

Visual opportunities include the control room where sludge treatment activities (and workers in protective clothing/masks) can be seen on monitors; the operating deck access station where workers exit the inner T Plant work area; a simulated drum, and a simulated piece of grout. Project personnel will be available to answer individual questions. Video footage of workers treating sludge will also be provided.

Interested reporters should respond to Geoff Tyree, Fluor Hanford Communications (509-372-1145) by noon, Friday, Oct. 28.

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