

# Waste Management Project accelerated waste disposal

**T**he DOE Richland Operations Office and Fluor Hanford's Waste Management Project are aligning work with new Hanford Site goals for accelerating waste disposal.

Well ahead of past plans, activities are under way to accelerate treating and disposing of mixed low-level waste, retrieving transuranic waste and shipping TRU waste off the site. The Waste Management Project is working with other DOE sites to ensure that disposal capability exists to meet DOE mission and closure schedules.

## Acceleration initiatives

Key initiatives to accelerate cleanup during the next four years include the following actions:

- treat and dispose of more than 6,000 cubic meters of waste currently stored at the Central Waste Complex
- treat and dispose of more than 800 cubic meters of mixed low-level waste forecasted to be generated by cleanup activities during the contract period
- process approximately 2,000 cubic meters of above-ground transuranic waste, currently stored at the CWC, and ship it to the Waste Isolation Pilot Plant in New Mexico for permanent disposal
- retrieve, designate and disposition more than 15,000 drums of below-ground suspect transuranic waste
- place 1,936 cesium and strontium capsules into dry storage.

## Receiving sludge, spent fuel

Recent accomplishments and current activities focus on preparing T Plant for compliant storage of sludge from the K Basins. In addition to storing sludge, T Plant is the prime candidate for a future remote-handled transuranic and mixed-waste processing mission. That mission will also include preparing the K Basins sludge for shipment to WIPP.

Since the late 1970s, T Plant has stored spent fuel from the Shippingport, Pa., reactor in a water-filled cell. To make way for the sludge, activities are under way to remove the Shippingport fuel to safe, dry interim storage at Hanford's Canister Storage Building until permanent disposal plans are finalized.

The first of 18 planned shipments was made in September, and seven shipments have been made to date. The next one planned will be this spring. The 72 Shippingport fuel assemblies represent nearly 16 metric tons of irradiated uranium.

Other preparations continue for storing sludge, including cleaning out eight process cells and 15 sections of canyon deck in the 850-foot-long T Plant "canyon." The job required removing and disposing of six PUREX towers, 19 large pieces of equipment and 145 empty drums. It resulted in 68 filled waste containers and more than 30,000 cubic feet of waste removed from the canyon.



A worker prepares a Shippingport spent fuel container for departure from T Plant.

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## Meeting the challenges

Other notable benchmarks in the Waste Management Project over the past year include these accomplishments:

- In December 2002, Waste Management Project workers surpassed 4.5 million work hours without anyone missing a day of work because of an injury.
- The project accelerated mixed low-level waste shipments to off-site treatment facilities to make room for retrieved transuranic waste storage at the Central Waste Complex. The current average is 20 shipments per quarter — the equivalent of 1,500 drums — of debris and radioactive lead solids, which are macro-encapsulated by a local treatment facility. The project is planning to more than triple this rate during the next year.
- In 2002, Hanford was the first DOE site to achieve recertification under new WIPP requirements. Since September, three transuranic waste shipments have been sent to WIPP, for a total of 13 since the first departed from Hanford in July 2000.
- During fiscal year 2002, 790 suspect transuranic waste drums were retrieved from low-level burial grounds. Retrieved drums are processed at the Waste Receiving and Processing (WRAP) facility and temporarily stored at the Central Waste Complex awaiting shipment to WIPP.
- Waste Management workers disposed of more than 140,000 cubic feet of low-level waste in fiscal year 2002.
- More than 10,700 cubic feet of mixed low-level waste were treated during the fiscal year.
- Liquid-waste activities during 2002 protected the groundwater by processing more than 22 million gallons at the 200 Area Effluent Treatment Facility and more than 42 million gallons in the 300 Area Treated Effluent Disposal Facility.
- Waste Management supported the DOE cleanup mission by providing key support to numerous on-site and off-site cleanup projects. On-site support was provided to the Plutonium Finishing Plant, the tank farms and the deactivation efforts for the 324 and 327 Buildings. Off-site wastes were accepted from a wide variety of generators, and these included wastes from Parks Township, Pa., an effort initiated in 1999. ■



A shipment of transuranic waste is on its way to the Waste Isolation Pilot Plant in New Mexico.