



## April 2008

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### Safety and Training

- OSHA recordable rates (injuries/illnesses per 200,000 hours worked)
  - Recordable injuries in April: 4
  - Calendar year total recordable case rate: 0.86
  - Calendar year days away from work case rate: 0.14
  - DOE fiscal year total recordable case rate: 0.73
  - DOE fiscal year days away from work case rate: 0.16
- Fluor became a member of the National Safety Council (NSC), a nonprofit, nongovernmental, international public service organization whose goal is to educate and aid people in preventing accidental injuries and deaths. Members of the NSC include more than 50,000 businesses, labor organizations, schools, public agencies, private groups, and individuals. Employees of Fluor can now access and use the NSC's Internet site which offers its members exclusive information, webcasts, networking, and answers from experts to questions submitted by members. Annual membership in the NSC enables Fluor employees to remain current on the latest safety and health initiatives, trends, and compliance issues affecting day-to-day operations. Other membership benefits include access to comprehensive information in the organization's extensive safety and health information library, publications, and products.

### Deactivating and Decommissioning (D&D) Facilities

- Central Plateau Closure
  - Plutonium Finishing Plant (PFP)
    - Continued shipping plutonium to the Savannah River Site in South Carolina.
    - Continued cleaning out the highly contaminated equipment from glove boxes and "hoods" (open-face handling boxes) in the plant complex, with 107 of 232 completed to date. The boxes and hoods ranged in size from relatively small (12 cubic feet) units to ones larger than a sport utility vehicle (384 cubic feet).
  - Fast Flux Test Facility (FFTF)
    - Continued to shut down systems no longer needed to operate FFTF.
    - Completed 11 shipments of reactor fuel to the Idaho National Laboratory ahead of schedule, the latest major step in the process of deactivating and readying the former test reactor for long-term surveillance and maintenance. The first shipment left Hanford in October 2007, and the last shipment was made in April. The Tri-Party Agreement between the Department of Energy, U.S. Environmental Protection Agency, and Washington Department of Ecology called for the work to be completed by the end of March 2009. Since 2003, 386 nuclear fuel assemblies had been removed from the reactor.

### **Closing the K Basins**

- Downgraded K East Basins from a nuclear facility to a radiological facility on April 3 – 53 years after the facility began operations. The radiological designation means that nuclear materials are no longer present in significant quantities, although residual contamination exists, and allows the facility to be monitored for radiological conditions only.
- Continuing preparations to demolish the superstructure of the K East Basin.
- Preparing to remove scraps of nuclear fuel from the K West Basin. Approximately 2,300 pounds of spent fuel uncovered during sludge vacuuming will be placed in dry storage in 2008.

### **Remediating Soil and Groundwater**

- Installed eight small, flexible aquifer tubes in four clusters along the shore of the Columbia River that borders Hanford's 300 Area, located just north of Richland, Wash. The tubes reach to different depths in the soil media, extending from approximately a few feet to more than 20 feet. They are down gradient (downstream as groundwater flows) from the 300 Area Process Ponds and Trenches, which sit just east and north of the northern half of the 300 Area. The tubes were placed to measure levels of uranium and trichloroethylene (TCE). TCE is a solvent degreaser that was used in fabricating uranium fuel in the 300 Area beginning in 1944.
- Delivered a plan for testing technologies to remediate contamination deep in the vadose zone. The vadose zone varies in thickness across the Hanford Site – from nearly surface level near the Columbia River to up to 400 feet in the Central Plateau. When contamination is lodged deep in the soil, it is very difficult to access and treat. Cleaning up this deep contamination has not been attempted before. The plan lays out a strategy to develop and test technologies that can effectively and practically treat contamination in-situ (in place). Site scientists targeted uranium and technetium-99 (Tc-99) contamination, because both isotopes are very long-lived, well-documented and identified, and pose potential risks to the groundwater. Two initial treatability tests are identified in the plan to evaluate in-situ remediation of uranium and Tc-99.

### **Managing Low-Level and Transuranic (TRU) Waste**

- As of the end of April, a cumulative total of 35,980 drum-equivalents of waste had been retrieved from burial trenches for characterization.
- Made six shipments of transuranic waste to the Waste Isolation Pilot Plant in New Mexico, for a cumulative total of 403 shipments.
- On April 9, sent the 400th shipment of nuclear waste from the Hanford Site to the Waste Isolation Pilot Plant (WIPP), the national repository for transuranic waste. To date, Hanford has sent the equivalent of 13,700 drums of waste containing more than 1,000 pounds of plutonium to the disposal facility in New Mexico.

### **About Fluor Hanford**

- A prime contractor to the Department of Energy since 1996, Fluor Hanford has 3,600 employees and manages several major activities at the Hanford Site, including dismantling former nuclear processing facilities, cleaning up the site's contaminated groundwater, retrieving and processing transuranic waste for off-site shipment, maintaining the site's infrastructure, and operating the Volpentest HAMMER Training & Education Center. For more information, visit [www.fluorhanford.net](http://www.fluorhanford.net).