

# Spent Nuclear Fuel Project

## Expectation:

Protect the Columbia River by safely moving more than 2,100 metric tons of deteriorating spent nuclear fuel from the aging K Basins to safe, dry, interim storage in the center of the Hanford Site.

## Status Update:

- We began installing 220 storage tubes, handling equipment and a sampling station in the Canister Storage Building.
- Manipulator systems, in-pool tables for fuel canister baskets, closed-circuit TV system parts, a flexible crane-transfer system, and underwater pumps, tanks and filters for the water-treatment system were among fuel-retrieval hardware we began installing in the K West Basin.



*The handling machine being installed in the Canister Storage Building will place canisters of dry spent fuel in an underground vault for safe, interim storage of up to 40 years.*

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## Status Update (continued):

- Submitted our Final Safety Analysis Report with the Canister Storage Building annex on time.
- Closed out the last technical issue related to dry storage of N-Reactor spent fuel.
- Evaluated options for treating and disposing of sludge accumulated in the K Basins.

## Future Focus Areas:

- Complete remaining safety analysis documentation for the Spent Nuclear Fuel Project.
- Complete Canister Storage Building tube and handling equipment installations.



*The Canister Storage Building vault will hold 220 carbon steel tubes. Each 28-inch-wide tube is 40 feet long and will eventually safely store about seven tons of vacuum-dried spent fuel and scrap from the K Basins.*

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## Future Focus Areas (continued):

- Continue K-West Basin hardware installations such as a fuel-cleaning system, in-pool process tables, manipulators, instrumentation and water-treatment components.
- Develop a cost-effective treatment strategy for radioactive sludge that has accumulated on the K-East Basin floor during 20 years of spent fuel storage.



*Sludge from the K-East Basin is taken for testing and analysis. An underwater camera helps engineers monitor the sampling activity. Later, operators transfer a sample to a shielded container.*