More Lawsuits for the DOE

Eight utilities have filed a lawsuit in federal court challenging the U.S. Department of Energy's authority to use the Nuclear Waste Fund to pay damages caused by its failure to meeting the January 31, 1998, deadline to begin accepting spent nuclear fuel from nuclear power plants. Parties to the lawsuit include: Alabama Power Co., Carolina Power and Light Co., Duke Power, Florida Power and Light Co., Georgia Power Co., Northern States Power Co., Southern Nuclear Operating Co., and TXU Electric Co. The primary point of contention is the DOE's use of the Nuclear Waste Fund as the source of compensation in the DOE's settlement for the Peach Bottom nuclear power plant (see "Headlines," *Radwaste Solutions*, Sept./Oct. 2000, p. 6.).

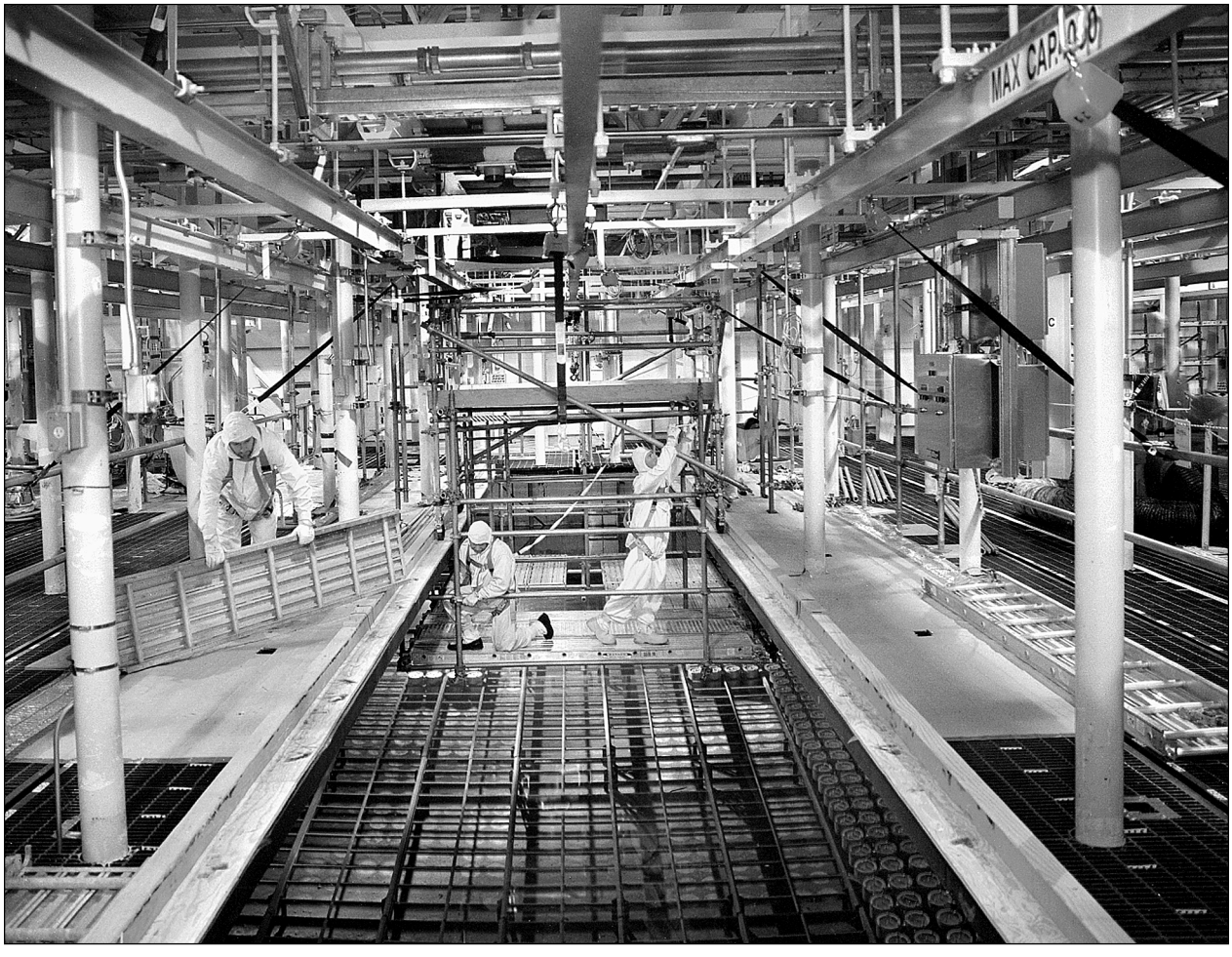
K-Basin Spent Fuel Removal Begins

On December 7, the U.S. Department of Energy and its contractor Fluor Hanford Inc. (FHI) successfully completed the first-ever shipment of Hanford spent nuclear fuel from the K Reactor Basins to a newly constructed treatment facility, where it will be dried and prepared for long-term safe storage. Over the next four years, some 2300 tons of fuel will be moved out of the K Basins—two water-filled and leak-prone pools located about 400 yards from the Columbia River. The spent nuclear fuel in the K Basins is one of the greatest threats Hanford's wastes pose to the environment.

The fuel moved was retrieved from the floor of the K-West Basin, then cleaned and inspected using two underwater robotic arms. The nearly 300 fuel elements were loaded into six custom baskets, which were placed into a multi-canister overpack (MCO) while still underwater. Workers placed the MCO on a special transporter for the approximately 400-yard trip to the Cold Vacuum Drying Facility (see photo on page 6), where all the water will be removed from the MCO and fuel through a four- to five-day process.

From there, workers will move the MCO to the Central Plateau, in the center of the Hanford Site, where the fuel will be stored in one of 220 forty-foot-long, carbon steel tubes in a below-ground vault in the newly constructed Canister Storage Building.

After removal of the spent fuel, sludge, water, and debris, both basins will be turned over to the Environmental Restoration project for disposition along with Hanford's other reactors along the Columbia River.



Removing K-West floor grating to make room for fuel-removal equipment.

Industry news

The DOE and FHI expect to move about 25 MCOs filled with spent fuel from the K-Basins during the first year of operations. At its peak, the project is expected to move 10 to 12 MCOs of spent fuel out of the basins and into storage per month.

Moving spent fuel away from the Columbia River is a key component of the DOE's work to restore the Columbia River corridor by completing key pieces of cleanup work by 2012. More on the K-Basin spent-fuel project will be featured in the March/April 2001 issue of *Radwaste Solutions*.

Aerial view of the 100-K Area of the Hanford Site, showing the location of the two K Reactors and the newly constructed fuel drying facility.