

# Spent Nuclear Fuel Project speeds up fuel removal

Michele Gerber, FH

In late January, Hanford's Spent Nuclear Fuel Project accomplished a "first" by removing three Multi-Canister Overpacks of irradiated fuel from the K West Basin in one week. Each MCO contains approximately 5.1 tons of irradiated uranium and about 150,000 curies of radioactivity. The MCOs hold approximately 290 N Reactor fuel elements that have been in wet storage in the K Basins since the mid-1970s.

Thus far, 46 MCOs have left the K West Basin, representing nearly 12 percent of the total amount of fuel in the K Basins when the SNF Project began.

"The ramp-up in MCO production has been planned for many months and has taken a lot of energy and commitment from the entire SNF team," said Bob Heck, Fluor Hanford vice president for the SNF Project. "We are on schedule and ready to meet the 2002 challenges of continuing safe operations. Our fuel removal schedule is aggressive, but we intend to meet it!"

The unique SNF Project has a milestone in the Tri-Party Agreement that calls for 957 metric tons of irradiated uranium (approximately 190 MCOs) to be removed by the end of this year. That amount corresponds to the amount of fuel stored in the K West Basin when fuel removal activities commenced. However, fuel from the K East Basin will be transferred into K West Basin beginning in November, so the K West Basin won't be empty of fuel when the 957 metric tons of fuel are removed.

In addition, Fluor Hanford has committed to the Department of Energy Richland Operations Office to have 150 MCOs removed by the end of September to help ensure that the Tri-Party Agreement milestone is met. All fuel removal (nearly 2,200 tons) must be complete by July 31, 2004.

In order to meet future schedule commitments, the project will have to achieve a fuel removal rate of three to four MCOs per week. The K West Basin, where fuel is processed, cleaned, sorted, re-packed and loaded out for drying, began round-the-clock operations on Jan.7.

At the Cold Vacuum Drying Facility, where fuel is dried after being removed from the K West Basin, process improvements have shortened the average processing time to 77 hours per MCO. The average is well below the project target rate of 90 hours per MCO.

The SNF Project's January quarterly maintenance outage, which included nearly 145 work packages in three major facilities, was completed safely and in record time. ♦

