

Potential errors cloud waste classification

Fluor Hanford, Bechtel Hanford and the Department of Energy Richland Operations Office are working together to resolve questions regarding the calculation of plutonium concentrations in packaged waste from two Hanford facilities undergoing deactivation in the 200 West Area. Plutonium concentration is an important criterion for determining the waste disposal path.

At least one package now in the Environmental Restoration Disposal Facility, or ERDF, contains a higher level of plutonium than permitted, according to Doug Sherwood of the Environmental Protection Agency.

Over the past two years, Fluor has provided Bechtel with non-destructive assay services for packaged waste removed from the 233-S Facility, formerly used to concentrate plutonium solutions. In May, Fluor discovered that two portable detectors used to survey these packages between May 1999 and May 2001 were incorrectly calibrated, and calculation errors were made in the data provided to Bechtel.

Fluor officials brought the issue to the attention of Bechtel, and Bechtel notified DOE and the EPA. DOE, Fluor and Bechtel are evaluating the potential impacts and are developing corrective actions based on the results of the evaluation.

Fluor is recalculating the plutonium values established for that one-year period by the two portable detectors. However, as the company's corrective action plan for the 233-S non-destructive assay work was being implemented, other issues emerged involving waste package surveys dating back five years and more. Fluor found additional measurement and calculation issues and procedure violations affecting these portable detectors.

Preliminary indications are that there have been no impacts to human health or the environment from the errors. Fluor is continuing to re-evaluate the data.

Fluor is also:

- conducting an independent review of all portable non-destructive assay procedures and results in the Plutonium Finishing Plant Analytical Laboratory
- evaluating and receiving independent validation of its overall PFP Analytical Laboratory quality assurance program to assure the completeness, accuracy and adequacy of data produced
- working with Bechtel, DOE and EPA to determine the impact of these errors on values used for packaged waste placed in the Hanford Environmental Restoration Disposal Facility, or ERDF, which is managed by Bechtel and permitted by the EPA.

"To resolve any remaining questions, we are recomputing and validating the corrected numbers we previously provided to Bechtel to determine their impact on waste designation and development of any required corrective actions," said George W. Jackson, Fluor vice president for the Nuclear Material Stabilization Project. "At the same time, we are conducting a more comprehensive review of our broader non-destructive assay and waste designation systems and procedures to assure these difficulties don't exist elsewhere."

"We've made no decision on whether they need to exhume the material from the burial ground," Sherwood said. ♦