

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 6, 2005

TO: K. Fortenberry, Technical Director
FROM: D. Grover, Hanford Site Representative
SUBJ: Activity Report for the Week Ending May 6, 2005

Board staff member Quirk was on-site this week performing site representative duties. Staff member Messrs. Roarty and Troan were on-site reviewing criticality safety at the Tank Farms.

K Basin Closure Project: During fuel processing operations the project was unable to load the final fuel basket into three Multi-Canister Overpacks (MCO). This was thought to be due to stacking interference problems or not seating the MCO immersion pail properly during basket loading. These MCOs were then shipped without the final basket to the Canister Storage Building for storage. A concern was raised about the acceptability of these three MCOs to meet shipping requirements to the repository. The missing fuel basket raised the potential that the remaining fuel could develop more momentum during an accident and apply a greater impulse force to the shipping container. This condition made it potentially necessary to reopen the three MCOs to add a basket or repackage the fuel into a new MCO. On April 28, 2005, the National Spent Nuclear Fuel Program transmitted a letter stating that based on preliminary calculations these MCOs would perform similarly to fully loaded MCOs. Based on this information the project is expecting to authorize welding closure caps on these containers to meet the interim storage criteria.

The project completed cleanout and video taping of the weasel pit floor. The video was to demonstrate the lack of cracks which could impact basin integrity under the loading of the filled sludge consolidation containers. The site rep and project reviewed the video and did not observe any evidence of cracking. The project has commenced the installation of the weasel pit sludge containers. The timing of the completion of this activity has been fortuitous as one of the two tech view pit containers has been registering a high sludge level alarm during pumping operations (the alarm has been clearing as retrieval stops and sludge settles). Discussions with the sludge project engineering manager has identified that the flocculant system is reducing the carryover of sludge out of the containers. Previously during operations the settling tubes had been obscured, now they are visible during sludge retrieval. As flocculated sludge accumulation is noticed on the settler tubes, water sparging of these solids has resulted in them dropping down into the consolidation containers.

Cc: Board Members