

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 7, 2000

TO: K. Fortenberry, Technical Director

FROM: M. Sautman and S. Stokes, Hanford Site Representatives

SUBJ: Activity Report for the Week Ending July 7, 2000

A. Spent Nuclear Fuel Project (SNFP). Significant problems occurred this week during testing of the Integrated Water Treatment System (IWTS) in K-West Basin that will cause further delays of the planned Readiness Assessment needed to support Phases 3 and 4 of the Phased Start-up Initiative (PSI). These delays are poorly defined and depend upon the successful repair efforts discussed below. The latest problem is the result of a spray leak from a hand-hold cover on one of the three sand filters in the IWTS that occurred on 7/3/00 (this is one of 18 of these types of covers). The leak occurred during a hydrostatic leak test following replacement of flexible hoses. The resulting contamination of the basin was fairly wide-spread but at low-levels (less than 1000 dpm) and fully contained within the basin. Clean-up efforts were initiated immediately and the area around the sand filters returned to a radiation buffer area within 10 hours of the leak. Current recovery efforts are aimed at repairing the leak and determining its cause, e.g., a failed gasket or something less obvious. However, these repairs are a significant challenge due to the location of the hand-hold within the shielded enclosure surrounding these vessels, e.g., existing clearances are in the 2-4 inch range. A work package is being prepared to remove and replace the existing gasket material using a jig fabricated to allow workers to work more easily within the shielded enclosure. This work is anticipated to begin next week. If this approach fails, other options are being considered but are rather unattractive due to increasingly greater impacts to the already tight schedule. For example, welding the cover on then re-certifying the vessel, cutting the shield wall away to allow access or removing the vessel from the enclosure then completing repairs. Additionally, since there are 17 more of these hand-holds, questions regarding the exact failure mechanism that caused this leak must be adequately addressed since a spray leak occurring after initiating hot operations would be involve a significant amount of radioactive material. (1-C)

B. Department of Energy - Richland (DOE-RL) Integrated Safety Management (ISM) Verification Review. DOE-RL recently underwent an ISM verification review between June 19-29, 2000. Though the final results from this review are not available yet, DNFSB staff and Outside Expert observations and discussions with ISM verification team leads indicate that DOE-RL may not have fully implemented their ISM program (the final report will be available on July 13, 2000). The likely cause is the scope and magnitude to DOE-RL's recent reorganization and their decision to implement a new computer based ISM system. However, given the work already completed and the framework created to support ISM, DOE-RL could successfully implement their program before the 9/30/00 deadline. This will only be possible though, if DOE-RL rapidly resolves existing project management related issues, focuses on the minimum set of

safety related policies and procedures needed to address ISM, and more effectively manages the transition to their new management system, e.g., more effective use of training. Discussions between the Site Representative and the DOE-RL Manager clearly indicate that actions are already underway to address these and other issues. (1-C)

cc: Board Members