

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 2003

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending January 10, 2003

Waste Treatment Plant (WTP): The Site Rep inspected cracks that appeared on a High-Level Waste Facility basemat section that was placed on December 17. Although this placement was a large one, the cracks only occurred in a thickened slab area between two walls. The cracks have a definite pattern that appears to follow the horizontal grid of rebar which is located several inches below the concrete surface. Some of the cracks have opened wide enough that a penny can be inserted into them and their depth in some locations could be an inch or more. The individual cracks range between a couple inches and a couple feet long, but there are nearly continuous lines of cracks running parallel to the walls. These types of cracks were unexpected and it is not known why they seem to follow the rebar. Bechtel National is sending pictures of the cracks to their concrete expert for analysis. Similar cracks have also been seen in parts of a placement made on December 3. It may or may not be relevant that the cracks have all occurred where the placement received a bull float finish rather than a standard steel trowel finish.

In preparation for an upcoming Board brief, the staff discussed with Bechtel the proposed authorization basis maintenance process (see 12/27/02 weekly report). The staff also discussed other Bechtel proposals for major revisions to the Safety Requirements Document, Integrated Safety Management Plan, and the Preliminary Safety Analysis Report. (I-C)

Spent Nuclear Fuel Project (SNFP): The SNFP shipped the 185th Multi-Canister Overpack (MCO) this week. This shipment represented completion of the Recommendation 94-1 Implementation Plan milestone to ship a quantity of fuel equivalent to that originally stored in the K-West Basin. The project shipped another two MCOs before entering the scheduled January maintenance outage. In addition to the planned maintenance activities, the project will be installing the equipment needed to process and load fragmented fuel into scrap baskets. This installation has been delayed for more than a year while the project has focused on activities needed to meet the aforementioned interim milestone rather than completion of the project. The uncertainty with the amount of K-East Basin scrap remaining along with the scrap backlog from fuel already processed has led the project to expend resources to evaluate revising the safety basis to allow increased scrap loading in each MCO. (III-A)

Tank Farms: The staff continued its discussions with the Office of River Protection over their draft guidelines for nuclear safety risk classification and control selection guidelines, albeit with mixed success. (I-C)

Plutonium Finishing Plant: The Site Rep inspected the new neutron moderation and prompt gamma equipment that will be used for analysis of sealed 3013 cans. (III-A)

cc: Board Members