

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 9, 2002

**TO:** K. Fortenberry, Technical Director  
**FROM:** D. Grover and M. Sautman, Hanford Site Representatives  
**SUBJ:** Activity Report for the Week Ending August 9, 2002

Waste Treatment Plant: The Site Rep observed preparations, batch plant operations, and placement operations associated with the second 70/ F concrete placement. The preplanning meeting, craft safety briefing, and the operations side of the placement went well. High temperatures were not an issue since the placement started at 1:00 a.m. However, a nonconformance report (NCR) was written because the slump of two truckloads of concrete did not meet Bechtel National Inc.'s (BNI) Engineering Specification. While the measured slump was acceptable at the batch plant, the trucks had already been emptied by the time the slump was determined to be out-of-specification at the point of discharge. BNI believes that they were still able to achieve adequate consolidation around the reinforcing steel bars. Office of River Protection (ORP) personnel raised concerns with the slump NCR during the placement's Lessons Learned meeting and worked out a path forward with BNI. The Site Reps also met with the BNI Construction Manager, Field Engineering, Quality Control, and ORP personnel to discuss staff concerns with the slump issue and the proposed path forward. In the future, the slump is to be adjusted at the batch plant if it is anticipated that the slump may drop below 3" during transit to the placement site. In addition, the concrete is to be visually inspected and the slump measured if it looks questionable. If the slump is too low, water is to be added or the truck rejected. BNI's original procedures and specifications did not address how to handle an out-of-specification slump. It was not clear from discussions with BNI, how much of the above proposed process would be formally incorporated into procedures. For example, the batch plant would ideally have a predefined limit that would conservatively account for water absorption by the mixture during transit. BNI also indicated that they might modify or eliminate the lower slump limit; the implications of this need to be analyzed. Based on the NCRs that have resulted during the last two placements, it would seem to be prudent for the concrete Engineering Specifications to be reviewed to ensure the proper controls and contingencies are in place to prevent future NCRs rather than trying to address them after the concrete has been placed. (I-C)

Building 324: The contractor Readiness Assessment (RA) for spent fuel removal from building 324 hot cells concluded this week. The contractor RA team concluded that the facility was ready to proceed pending closure of the pre start findings. The majority of the pre start findings dealt with deficiencies with hoisting and rigging requirements and transportation requirements. Of note were several post start findings dealing with the failure to include service and support personnel in the facility ISMS team. This led to inadequate procedures for critical lifts performed by the support organization which resulted in several of the pre start items. The DOE RA team conducted their review in parallel and will conclude next week after reviewing the contractor RA team report. The DOE team stated that they concluded the facility was ready to commence operations upon completion of pre start items. (III-A)

cc: Board Members