

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 18, 2002

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending October 18, 2002

Spent Nuclear Fuel Project (SNFP): The Site Rep met with SNFP management several times this week to discuss the findings of the Contractor Operational Readiness Review Team. The repetitive nature of the findings was discussed as well as the failure of previous efforts to correct the root causes of the problems. The SNFP has spent the majority of the week performing root cause analysis and taking corrective actions on the findings. Information gathered during the corrective actions is being used to reevaluate the root causes and identify additional corrective actions as necessary. The Site Rep was informed that as many as four iterations of this process has been performed for some findings. (I-C)

Unreviewed Safety Questions (USQ): The two Department of Energy (DOE) offices approved high-level USQ procedures, but left most of the details in contractor-approved procedures. The staff is encouraging DOE to include their expectations, clarifications, and discussion of non-applicable issues in their approved procedure to prevent future discrepancies between contractor implementation and DOE expectations as well as to make the process less personality dependent.

A criticality nonconformance was declared at the Plutonium Finishing Plant (PFP) after assays identified that 12 of the couple hundred "empty" plutonium solution containers stored in the PFP tunnels contained more than 15 g Pu (the highest was 168 ± 150 g). Furthermore, this area was not covered by the PFP criticality alarm system although the estimated total inventory exceeded 450 g nor was this scenario discussed in the safety basis. The staff agrees with DOE that once this discrepancy between the facility condition and the analysis was identified, there was enough information available to declare that a Potential Inadequacy in the Safety Analysis (PISA) existed. However, the contractor chose to wait until they performed a subsequent analysis to show that a criticality was impossible due to the physical form of the Pu and then argue that based on these results there never was a potential inadequacy. While the staff agrees with the ultimate conclusions that a criticality was impossible and there was not a USQ, the correct process is to declare a PISA and initiate the USQ process, not to use the results of the USQ process to justify not declaring a PISA. (I-C)

Tank Farms: In response to a Site Rep discussion with the CH2M Hill Hanford Group (CHG) Deputy General Manager (see 9/27/02 weekly report), CHG completed an evaluation of 13 electrical safety events. Inattention to detail during planning, review, and execution contributed to 9 events. The evaluation found that work on or in the vicinity of energized electrical circuits was often authorized as a matter of convenience without evaluating lock out/tag out alternatives. Controlled drawings did not reflect field conditions in some cases also. CHG has initiated a number of corrective actions and has communicated the lessons learned to their workforce. (I-C)
cc: Board Members