

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 7, 2001

**TO:** K. Fortenberry, Technical Director

**FROM:** D. Grover and M. Sautman, Hanford Site Representatives

**SUBJ:** Activity Report for the Week Ending September 7, 2001

Spent Nuclear Fuel Project (SNFP): In the June 22, 2001, Activity Report, Mr. Grover identified an issue where the project administrative procedures allowed a reduced level of operational formality compared to the site wide guidance. This led to the SNFP categorizing a procedure which requires written verification of the implementation of a TSR administrative control as not needing to be present at the work site. This is not consistent with the guidance provided by the DOE order for conduct of operations. Subsequently, the project has implemented a change to administrative procedure in question removing much of the criteria explaining the level of rigor is required for procedure use at a job site. The remaining criteria does not appear to adequately implement the DOE conduct of operations order as relates to procedure use. This concern along with the failure to recategorize the above procedure, raises questions with the SNFP's efforts to ensure that operations are conducted with the appropriate rigor. (III-A)

Tank Farms: Battelle has revised their model for gas release events (GREs) that are induced while decanting waste tanks in order to investigate staff concerns with multiple or cascading GREs. A Monte Carlo code is being used to address uncertainties with key waste parameters for tank AN-105, which should be the worst case. Very preliminary data from the first 5000 runs found that the highest flammable gas concentration was about 47% of the lower flammability limit (LFL). In most cases, the maximum did not exceed 25% of the LFL. Mr. Sautman suggested that future runs examine the effectiveness of two potential control strategies. In the first case, the decant rate would be varied to see if a lower rate can significantly reduce the maximum gas concentration without extending the retrieval duration too long. In the second case, decanting would stop once 25% of the LFL was reached. Since stopping decanting does not instantaneously stop GREs, it would be useful to see how much higher the gas concentration would increase and how likely it would be for additional GREs to be triggered once decanting was shut down. It was agreed to examine both of these issues. CH2M Hill Hanford Group hopes to have a Control Decision Meeting on this topic in October. The staff will review the bases for the parameter distributions and how the results are used in future safety analyses.

Mr. Sautman observed dry runs, drills, and interviews associated with the Department of Energy's Operational Readiness Review for restoring the capability to receive additional high-level waste into Tank SY-101. (III-A)

Interaction with the Public: Mr. Sautman gave a presentation to the Kennewick-Pasco Rotary Club about the Board's responsibilities and activities at Hanford.

cc: Board Members