

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 22, 2000

TO: K. Fortenberry, Technical Director

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

SUBJ: Activity Report for the Week Ending September 22, 2000

Plutonium Finishing Plant (PFP): PFP completed processing the first batch of solution through the magnesium hydroxide precipitation process Wednesday night. The only anomaly was that there was excessive foaming when operators began to sparge the solutions after adding magnesium hydroxide. This had not occurred during surrogate testing. This might have been caused by manually adding all the powder before sparging versus adding the powder while sparging as was done at Rocky Flats. There was also a thin layer of residual test solution that appeared to hinder dissolution of the powder while it was being added. When operators were unable to sparge the solution according to procedure, the supervisor stopped work. A plan was developed and approved to allow some minor modifications for how the powder was added and the solution sparged. When work resumed, the revised technique reduced the amount of foaming to a manageable level and the plutonium precipitated out shortly thereafter. The presence of senior managers during this and other operations recently has helped to resolve operational issues that arise. The crews are also generating several ideas for improving the processes. (3-A)

Spent Nuclear Fuel Project (SNFP): Additional problems with the rupture of underwater hoses and failed fittings continue to delay the completion of the Phase III readiness assessment. Replacement hoses are expected to be installed over the next few days. This issue highlights a persistent engineering problem since the hose failures are related to the selection and installation of a 100 psi rated hose in a 125 psi system. This discrepancy has been well understood for some time. Fortunately, the continued failure of the 100 psi hose will finally be addressed since the new hoses are rated at 150 psi. However, it is not clear that newly designed fittings will be installed to replace the existing design until later. These items should be addressed as prestart items for the upcoming operational readiness reviews beginning 9/25/00. (1-C)

Integrated Safety Management System (ISMS): The Department of Energy Richland Operations Office (DOE-RL) completed an independent verification of the short corrective term actions from the July 2000 ISMS verification review. Mr. Keith Klein has elected to continue using a project management approach to fully address the ongoing long term corrective actions. The transition from the short to long term project team is currently underway and will be ongoing for the next 2 weeks. Discussions between the Site Rep and the new project team are planned to review implementation of the existing long-term corrective action plan. Additionally, Mr. Klein declared this week that the basic components, processes, and manuals of practice for ISM are in place at Hanford and are implemented within DOE-RL's prime contractor organizations. (1-C)

cc: Board Members