

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 9, 2004

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Donald Owen, Oak Ridge Site Representative  
**SUBJ:** Activity Report for Week Ending January 9, 2004

Staff members Goff and Winters and outside expert Lewis visited Oak Ridge to observe the Operational Readiness Review for the Melton Valley Waste Processing Facility.

A. Melton Valley Waste Processing Facility (WPF). Following DOE-ORO line management declaration of readiness, the DOE Office of Environmental Management (EM) conducted their Operational Readiness Review (ORR) for startup of supernate processing this week. The ORR team found that the operational demonstrations and overall readiness preparations were generally satisfactory. Five pre-start and two post-start findings along with several observations were identified by the ORR team dealing with use of procedures and other issues. Corrective action plans for the findings are in development:

An evolution observed by the site rep. and staff during the ORR was a demonstration of a ventilation filter replacement in the filter plenum for the main evaporator exhaust. Replacement of these filters is anticipated to be an infrequent, non-routine activity involving substantial airborne and external radiation hazards to workers (as will many emergent maintenance activities that are anticipated during the supernate processing campaign). A procedure with numerous steps for contaminated filter removal and replacement was developed for this activity. The site rep. and staff had the following observations on this demonstration:

- The filter replacement procedure, while in the room, was not being referenced during the course of the activities in the room, even following a problem with establishing a slight negative pressure in the plenum during the replacement.
- The job supervisor was not in the room observing the evolution, but rather observing from outside the room where the potential to evaluate conduct of the job is very limited.
- The radiological control technician (RCT) assigned to the job became actively involved in the filter removal and replacement tasks in addition to his radiological survey tasks. Such active involvement could compromise the RCT role of objectively observing the activity to identify any radiological concerns.

An ORR pre-start finding and an ORR observation were identified related to the demonstration, but it is not clear that the staff observations would be addressed. The site rep. and staff discussed the staff observations with DOE-ORO line management, including the potential implications to conduct of other hazardous, non-routine maintenance activities. DOE-ORO line management indicated that they would address the staff observations prior to seeking startup approval from EM. (III)

B. Y-12 Building 9212 B-1 Wing Fire Protection. As reported on October 3<sup>rd</sup> and 10<sup>th</sup>, the NNSA letter to the Board of September 23, 2003 noted plans to evaluate B-1 Wing fire protection. The letter also noted an option involving use of a shroud around the chemical extraction columns to funnel combustible liquids to the first floor and douse with sprinklers. A Performance Based Analysis (PBA) of B-1 Wing fire protection has recently been completed. In a December 19<sup>th</sup> letter forwarding the PBA report to YSO, BWXT noted that the proposed upgrades resulting from the PBA include installation of sprinklers on the first floor, a new system shutdown interlock and relocation of certain equipment (but no proposal to proceed with installation of a shroud). The PBA and proposals are under review at Y-12. A YSO recommendation to NNSA Headquarters is expected by late February. (I)