

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 20, 2003

**TO:** J. Kent Fortenberry, Technical Director  
**FROM:** Donald Owen, Oak Ridge Site Representative  
**SUBJ:** Activity Report for Week Ending June 20, 2003

A. Y-12 Activity-Level Work Planning. As reported last week, the site rep had inquired with BWXT and YSO management on the activity-level work planning for a maintenance evolution that included replacement of a plexiglass window on a glovebox enclosure in E-Wing of Building 9212. A worker's arm had been contaminated following retrieval and installation of old gloves into the new window. A decision had been made prior to the evolution that the gloves from the old window would be reinstalled into the new window, as new gloves were not available; this decision was not reviewed with radiological controls personnel. Appropriate personal protective equipment was not worn for retrieving and reinstalling the old gloves.

The glove replacement was part of a total work scope that also included replacement of the head for a 150-ton hydraulic press in the contaminated enclosure. The site rep. was provided with work planning documentation including work instructions, a job hazard analysis screening form and the applicable radiological work permit (RWP). The site rep. has the following observations on the work planning aspects of this job and activity-level work planning in general:

- The job hazard analysis screening form contains a series of questions to establish whether a work scope requires a formal job hazard analysis. As all questions were answered (apparently appropriately) in the negative, no job hazard analysis was required for this work. Many of the questions do not directly deal with the hazard level of the work. The questions also do not consider non-routine versus routine nature of the work nor consider whether the work involves a breach of a radiological boundary. The site rep. considers that those questions that do directly deal with hazards of a work scope establish a high threshold hazard level below which no job hazard analysis is required.
- The RWP used for this evolution applies to several areas of Building 9212 and the Description of Work section states: "Repair/replace valves, pumps and flanges on piping, traps and tanks for process systems (not requiring bodily entry into casting line or enclosures). Tasks may include work on other components on process equipment/systems." This RWP scope is very broad and appears to cover much of the maintenance work on process systems. With the exception of an engineered safety control requirement that "exhaust ventilation" be in operation as directed by radiological controls personnel, the RWP safety controls are administrative or personnel protective equipment requirements.

Such lack of activity-specific hazard analysis may result in lack of proper definition of work scope and/or lack of identification of hazards and appropriate safety controls, particularly engineered safety controls, for specific jobs at Y-12. The site rep. discussed these observations with YSO and BWXT management who indicated that they would look into the matter. (1-C)

cc  
Board Members