

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 16, 2010

**TO:** T. J. Dwyer, Technical Director  
**FROM:** D. L. Burnfield, Site Representative  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending July 16, 2010

Todd Davis, the Los Alamos National Laboratory site rep, was on-site this week to assist in the site rep duties.

**L-Area:** Last week, the site rep attended the safety reviews associated with pre-job planning to place sub-contracted divers in the L-Area transfer basin to do maintenance on structural equipment needed for future fuel handling (see July 9, 2010 report). The planning did not adequately balance the hazards associated with diving and potential radiation exposure. The site rep was concerned that during an alarm the potential evacuation of the diver support team before removing the diver from the basin could jeopardize the safety of the diver. SRNS management revised the alarm response procedure accordingly.

This week the site reps observed the dive team as they entered the transfer basin and replaced the nuts and bolts on the structural equipment. The diver worked underwater for approximately 5 hours without incident. After exiting the transfer basin, the diver (still in his dive suit) was washed down using deionized water and dried. Radiological control personnel took large area surveys of the dive suit, which were all within specification. Radcon personnel assisted the diver in removing his suit and performed a whole body frisk for contamination prior to exiting the Contamination Area. No contamination was found on the diver or any member of the dive team. As a result of this successful operation, SRNS will be able to use the 70-ton cask to transfer spent fuel from L-Area fuel storage to H-Area for processing.

**K-Area:** An operator working in a glove box snagged his glove during a 3013 container cutting operation (see July 9, 2010 report). The operator was cutting the inner can (which contains the convenience can) of a 3013 container packaged at Rocky Flats. While some containers had protective burr covers, this one did not. The operator placed a piece of tape over the hole in the side of the inner can and placed the inner can in the cutting device. The can was oriented so that the piece of tape was facing upward. The operator tightened the collar on the cutting device, which resembles a pipe cutter, and turned on the cutter. At this point, the cutting machine collar was not tightened sufficiently. The cutting heads started rotating around the can, and it rotated in the device.

The operator noticed the can spin and requested the other operator to stop the can cutter motor. The operator feared that the tape on the hole had come loose, allowing oxide to spill out of the hole. As allowed by the procedure, he then reached into the glovebox and grabbed the inner 3013 container by the end away from the rough Rocky Flats cut end using the glovebox glove only. When he could not spin the can back to the original upright position, he “instinctively reached” in with the other hand and grabbed the cut end of the can and the glovebox glove snagged on the can burrs and tore. While the worker was not contaminated, this event bears similarities to the puncture wound that occurred in F-Area (see the June 18, 2010 report). Specifically, the ability to provide oversight or peer review of the operation being performed was impaired. The workers did not exhibit the necessary desire to stop the operation when they were approaching the limits of their task (in this case the approximately 25% of the cans appears to slip in the collar during cutting). Furthermore, management did not understand that the problems were occurring.

**Saltstone:** SRR is moving along the recovery path to remove grout from the process lines (see July 2, 2010 report). They staged the spare grout hopper in the process room, installed replacement piping, and rebuilt the rupture pin. The facility should be able to be recovered week of July 19, 2010.