

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 28, 2004

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
J. J. McConnell, Deputy Technical Director  
**FROM:** R. T. Davis/ T. D. Burns  
**SUBJECT:** SRS Report for Week Ending May 28, 2004

**Deactivation Activities:** As part of the de-inventory process in Building 321-M, a cesium-137 sealed source was size reduced for shipment in a Department of Transportation 5-gallon container. The source is approximately 1 1/16" in length and was connected to a three foot handle. The bottom portion of the handle containing the source was inserted into a shielded "pig". The size reduction operation required removal of the handle just above the pig. Prior to removing the handle the dose rate was measured to be 45 mR/hr on contact with the pig. Following removal of the handle and placement of the pig into the 5-gallon container the measured dose rate was 1 R/hr on contact with the container. The container was isolated while WSRC investigated the higher than expected dose rate. Subsequent interviews with the worker indicated that a small cylindrical object was discovered after the cutting operations. The object was placed by hand into the 5-gallon container and is believed to be the source.

Despite the possibility of radiation fields greater than 1 R/hr, no radiological work permit (RWP) was issued for the size reduction activities. Since the work was performed without a RWP, no extremity dosimeters were worn and a dose reconstruction will be necessary if the small cylindrical object is indeed the source. Additionally, the work was performed under a simple work package which precluded the development of a job specific activity level hazard analysis. Site personnel are currently working on the development of a recovery plan.

**KAMS:** Last week, WSRC identified two 9975 drums in K-Area Material Storage (KAMS) that do not have materials packaged in accordance with DOE-STD-3013 as required by the KAMS Documented Safety Analysis (DSA). The facility was already operating under the Limiting Condition for Operations (LCO) for an unauthorized shipping package because of issues identified with several 9975 packages (site rep weekly 5/7/04). One of the packages contained plutonium material smaller than allowed by the standard. The other package had inner and outer containers that were packaged to different versions of the standard. On Friday, the two drums were transported back to FB-Line for processing. WSRC plans to open these packages for stabilization and repackaging.

**Building 235-F:** The Container Surveillance and Storage Capability (CSSC) project will provide DOE-STD-3013 surveillance capability and additional storage capacity in Building 235-F. Earlier this month, DOE received approval for reprogramming of funds to support this project (site rep weekly 4/23/04). WSRC continues design activities and is pursuing long lead procurements. The preliminary Documented Safety Analysis was also submitted to DOE earlier this month.