

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2011

TO: T. J. Dwyer, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending November 4, 2011

Fire Protection: SRS continues to address several fire protection issues (see 6/24, 7/1, 7/29, 9/23, 9/30, 10/7, and 10/14/11 reports). The site rep recently met with SRNS Infrastructures Services (IS) to discuss their Fire Protection Systems Improvement Project Plan. The plan's goals include a reduction in fire impairments and the maintenance backlog and improving the integration of Technical Safety Requirements (TSR), National Fire Protection Association (NFPA) codes, SRS procedures and Memorandum of Understanding. In order to avoid future TSR violations, IS has revised how their staff releases work affecting nuclear facility utilities and their notification of facility management. The site rep reviewed the first of these revised MOU that tries to better define roles and responsibilities and better identify TSR requirements.

DOE Order 420.1B, *Facility Safety*, requires a fire hazards analysis (FHA) for all hazard category (HC) 3 facilities. In 2005, the Decontaminated Equipment and Waste Storage Area (DEWSA) located at the Defense Waste Processing Facility was identified as a HC 3 facility. Building 250-1S is part of the DEWSA and is used to store waste containers. In 2008, WSRC opened an action item to develop a FHA for 250-1S. Although this action item dealt with a noncompliance with a DOE Order, SRR extended this action item seven times and has yet to complete a FHA six years after making 250-1S a HC 3 facility. SRR is currently making arrangements to relocate the 8 waste boxes inside 250-1S and complete the FHA.

In 2007, the contractor conducted an inspection of the K-Area fire water storage tank per NFPA 25 *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems* and found sediment in the tank. In 2010, SRNS upgraded the tank to safety significant (SS) although the sediment remained in the tank, contrary to NFPA 25. This week, SRNS identified this code noncompliance and declared the operability of the SS shuffler fire suppression to be indeterminate.

L-Area: Operations loaded a spent fuel cask into the dry well (part of the shielded transfer system) inside the transfer basin while in standby mode. The definition of standby mode in the TSRs prohibits cask handling above the water. The dry well has historically been considered by Engineering to be "above the water" because a dropped cask could impact the basin floor although the TSR and related training do not clearly state this. The shift manager did not implement the procedure to change to operations mode, which involves verifying that the TSR minimum staffing requirements are met. Facility personnel initially maintained that since they actually had the required minimum staffing this was only a single violation of an administrative control, but not a TSR violation. Although the list of TSR violation criteria in the TSRs did not include this situation, the site rep and SRNS Nuclear and Criticality Safety Engineering considered this to be a TSR violation because an operation was conducted that was prohibited by the TSR mode they were in. The facility later declared a TSR violation.

235-F: The site rep completed field observations of 235-F and the associated ventilation building with senior DOE management as well contractor management. During one of the observations, the site rep identified a potential flooding problem with the ventilation building. In addition, the area manager identified additional walls in 235-F that were potentially made of the aluminum clad sandwich panels. The contractor is evaluating whether they should remove these panels, since they are potentially a source of fire loading.