

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 11, 2009

TO: T. J. Dwyer, Technical Director
FROM: D. L. Burnfield and M. T. Sautman, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending September 11, 2009

H-Canyon: A construction painter foreman wanted to check lighting and supplies in the truck well airlock before helping paint the truck well floor. After an informal discussion with a Radiological Control Inspector (RCI) and the Person-in-Charge (PIC), he was told to sign in on a standing Radiological Work Permit (RWP) that allowed him to wear a lab coat, shoe covers, and gloves for performing observations in some Contamination Areas (CA) like the truck well airlock. Both the RWP and the RCI's verbal direction prohibited entry into the cell cover airlock. Once inside the CA, he entered the cell cover airlock. The postings do not identify the name of this airlock or state that lab coats are prohibited in this part of the CA. Inside this airlock, he noticed that the door to the warm canyon was standing ajar. (The door's latch was broken and the canyon's vacuum would pull the door open). When he was unable to shut the door, he stepped onto the warm canyon cell covers to try to operate the latch and got grease on his gloves. The warm canyon cell covers are posted as both a High Contamination Area and an Airborne Radioactivity Area (ARA), although some hoses had fallen down and partially obscured the posting. In addition, he had to cross over a step off pad. Although the foreman had worked at H-Canyon for two years, he was unfamiliar with this part of H-Canyon. He did not know where he was or appreciate that he was entering a part of the canyon normally only accessed while wearing plastic suits. After closing the door, he proceeded back through the airlock, down the stairs, and checked some equipment before exiting. While he performed these actions, he spread contamination wherever his gloves and shoe covers touched. When he tried to exit the CA, his hands and feet repeatedly alarmed a count rate meter. RCIs responded and found up to 40,000 dpm α on his pants legs. The contaminated pants were taped and later removed. No contamination was found on his skin nor did air monitors outside the ARA detect any increase in airborne radioactivity. A chest count was negative and bioassay samples will be taken. Contamination surveys found 10^5 dpm α on the cell cover airlock door knob and 1000's to 10,000's dpm α along much of his travel path. The shoe covers were recovered and were found to contain 10^6 dpm α and 10^5 dpm $\beta\gamma$. The fact finding meeting identified weaknesses with facility knowledge, PIC supervision, use of walkdowns, work scope definition, postings, and notifications.

Modular Caustic Side Solvent Extraction Unit (MCU): The Site Rep met with contractor and DOE to discuss conduct of operations and training issues related to last week's scrub feed pump event. All parties agreed that there actually was a procedure in effect (i.e., roundsheet) at the time it was realized the pump was not operating and that the Conduct of Operations Manual requirements for notifying supervision and documenting the condition and path forward were not met. Furthermore, when performing on-shift training, the qualified operator will not act as a procedure reader. He will focus solely on observing the trainee and will intervene if warranted.

American Recovery and Reinvestment Act (ARRA): After teams of workers, engineers, and subject matter experts complete their review of work packages, the revised packages are further scrutinized by management and the Facility Evaluation Board (FEB). (See 9/4/2009 report). Senior management should release the first work packages next week. Since the A-Line incident, the Site Reps have observed a change in attitudes in the workforce.

Tank Farms: After an engineer questioned the setup of seismic scaffolds, an inspection of seismically-qualified scaffolds in the tank farms identified four scaffolds that were missing a required horizontal tubular member.