

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 15, 2012

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 June 15, 2012

H-Tank Farms: The SRR investigation continued on the cause of the inadvertent transfer to Tank 30 (see 6/8/12 report). This week it was determined that level indicators on the tank had alarmed and operators had reset the alarms during the transfer without a thorough determination why they had alarmed. A more thorough evaluation by back shift personnel might have resulted in a smaller transfer to Tank 30.

During recent heavy rainfall, the high level alarm for tank 21 alarmed and reset. A further investigation of this condition revealed that SRR personnel had misplaced the in-tank conductivity probe on top of a gravity drain line that extends into the tank. Because SRR knows about this obstruction, there is a requirement to video the location of the probe when it is changed. The current still shots of the probe clearly identify both the probe and the gravity drain line. SRR installed the probe in September 2011. According to site personnel who reviewed the stills from this installation, the obstruction is not visible in the video. While the quality of the video was deemed to be unsatisfactory, no site standard exists for determining video quality based upon contrast, brightness, or any other common characteristic of photography.

E-Area: TRU waste is being remediated inside a structure contained in Cell 11. SRNS personnel have installed a nitrogen and water vortex fire suppression system inside this structure. During the backshift, when no one was present in this structure, the fire suppression system activated. No spread of contamination was detected in the remainder of the structure. The initial automated indications were that the system was manually activated. Maintenance personnel visually inspected the pull-station and determined that it had not been activated. E-area personnel prepared a reentry plan and are working to determine the cause of the activation.

F-Area: 235-F exhaust fan #1 has had high vibrations recently. An inspection found that one of the fan blades is broken.

Spent Fuel: DOE directed SRNS to perform ultrasonic inspections of oversized cans containing uranium metal spent nuclear fuel. While this has the potential to provide data on the wall thickness of the cans and possibly the presence of water, the configuration of the cans and fuel will make it challenging to get useful data.

Defense Waste Processing Facility: SRR is considering formalizing the process they use to prepare shift operations managers for oral boards in light of recent site rep observations.

Waste Solidification Building (WSB): A worker dropped a piece of bar being used on the ventilation system approximately 20 feet to an occupied room below. No one was injured but a worker was struck by the metal once it hit the floor. SRNS and Baker Construction are taking steps to preclude a similar incident from occurring. These actions include precluding workers from entering the space below an area where overhead work is performed without adequate protection and changing requirements for overhead decking and postings.

Quality Assurance: The site Facility Evaluation Board conducted a review of quality assurance and concluded procurement packages for many common non-complex parts did not have the appropriate documentation of the critical characteristics for acceptance (see 3/16/12 report.) The site rep met with SRNS Quality Services and Engineering personnel to review the corrective actions that they are taking. It appeared that many of the corrective actions were well thought out and most had been completed. However, a full suite of critical characteristics for threaded fasteners had not been included in the evaluation.