

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 14, 2017

**TO:** S. A. Stokes, Technical Director  
**FROM:** M. T. Sautman and Z. C. McCabe, Resident Inspectors  
**SUBJECT:** Savannah River Site Resident Inspector Report for Week Ending April 14, 2017

**Chairman Visit:** Chairman Sullivan visited SRS on April 12-13. He visited the Failed Equipment Storage Vault, saw the new melter, and discussed SRR's plans for replacing the failed melter. He also observed the excavation and sheet piling work being performed to support the Salt Waste Processing Facility tie-in outage, discussed plans for repairing the failed 3H Evaporator pot, and visited 235-F, H-Canyon, Tank Farms, and the Tritium Extraction Facility.

**NNSA Letter of Concern:** In light of recent events, including three technical safety requirement violations since January (see 1/13/17 and 1/20/17), NNSA-SRFO sent a letter of concern to SRNS. The concerns include an observed downward trend in operational discipline and questioning attitude. The letter requested a formal response from SRNS to evaluate the root problems that led to these event and a plan to reverse this pattern of performance.

**Solid Waste Management Facility (SWMF):** SWMF personnel initiated the use of a new version of the Waste Inventory Tracking System (WITS) safety software for operational use on April 6. Roughly an hour later a user identified an error. The software was referencing the database used for acceptance testing instead of the actual "live" database. At the time, Process Control & Automated Engineering (PC&AE) believed it to be an issue local to the user and began troubleshooting. The following Monday, SWMF personnel noted that WITS would not allow the user to relocate a waste shipment and informed PC&AE. PC&AE determined that this error was caused by the same issue previously identified. This detected computer program error prevented SWMF personnel from relocating waste containers for shipment to the Waste Isolation Pilot Plant. After the error was identified, SWMF management directed PC&AE to re-install the previous version of WITS. However, PC&AE completed the rollback without properly documenting the configuration management control. The error was not identified before releasing the new version of WITS because PC&AE failed to perform the required post installation test. PC&AE did not use the software quality assurance (SQA) guide that directs the user to perform the post installation test, and the computer modification tracker (CMT) developed for installation of the new WITS version did not require the post installation test despite having multiple reviewers and approvers. After an issue investigation, SWMF personnel immediately placed WITS on hold until the proper configuration management could be documented. SWMF personnel are also reviewing all open CMTs to ensure each has an adequate test plan, and are reviewing all access to WITS between the erroneous version going live to when it the previous version was reinstalled (approximately four days). Considering this is the third SQA issue at SWMF in approximately six months, SWMF personnel are reviewing this and other recent issues to determine if latent organizational weaknesses are present.

**Tank Farms:** For the first time in more than a decade, SRR conducted a simulator drill for a nearly complete control room crew. The conduct of operations drill involved a simulated evaporator pot leak concurrent with a loss of cooling tower water to the evaporator and an injured worker. SRR intends to conduct more of these simulator drills in the future.