

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 8, 2016

TO: S. A. Stokes, Technical Director
FROM: Z. C. McCabe, Site Representative
SUBJECT: Savannah River Site Weekly Report for Week Ending July 8, 2016

Structural Integrity Program (SIP): It is typical for a facility's safety basis to credit a SIP to provide reasonable assurance that the evidence of degradation of a passive structure, system, or component (SSC) is detected to permit corrective actions before the function of the SSC is compromised. Due to recent issues involving structural integrity across multiple facilities (see 6/10/16 and 6/24/16 weekly reports), DOE-SR is planning to assess the adequacy of the SIP implementation for SRR and SRNS. The assessment will consist of a site-level programmatic review and facility-level performance-based assessment.

Certain aspects of the SIP for the Defense Waste Processing Facility (DWPF) need improvement. For example, SRR personnel are required to develop an annual summary report that lists the SIP inspections and tests performed, highlighting any trends and degradation. The last annual summary was completed for the 2012 inspections. This report references a list of action items, several of which are still open. One item still overdue is the structural integrity inspection of the Failed Equipment Storage Vault. While it appears that most other inspections are being performed within the required timeframe, it is unclear if the data gained is being tracked and trended in a meaningful way. Tracking and trending is a required and vital part of ensuring the SIP is providing its intended function. Additionally, the structural integrity data sheet for the DWPF reinforced concrete portion of the exhaust tunnel states that inspections are not needed. However the referenced document supporting that statement actually recommends periodic inspections for coated concrete structures such as the exhaust tunnel. SRR is planning a self-assessment of the SIP to determine what improvements can be made.

DOE-SR Review of SRR: In response to recent conduct of operations events (see 5/27/16, 6/3/16, 6/10/16 weekly reports) DOE-SR recently performed a multi-day review, consisting of ten DOE-SR assessors focusing on two SRR facilities. The review efforts consisted of observing work, interviewing SRR personnel, and reviewing recent SRR self-assessments. DOE-SR documented their review and presented several findings and opportunities for improvement (OFI) in a letter to SRR dated June 30, 2016. Noteworthy findings and OFIs include less than adequate maintenance procedure compliance and understanding, and poor work planning often leading to delays. DOE-SR did, however, commend SRR's safety culture, noting that SRR personnel are comfortable to ask questions and raise issues to management. The letter requested a formal response from SRR documenting their causal analysis, extent of condition, and corrective action plan.

H-Area Tank Farm (HTF) Emergency Preparedness (EP) Drill: The site representative observed a coached EP drill at HTF. The drill scenario involved a waste spill during a transfer. SRR personnel noted multiple opportunities to improve future drills. For instance, poor communication between the controllers led to confusion on the rate of the transfer and thus the volume of the spill, which is used to classify the emergency. Additionally, the responder tasked with the initial approach of the spill stated that he was unsure of the spill volume on top of the tank, represented by accumulated rain water. The controller then informed the responder that the spill was roughly 100 gal, which was unearned.