

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 4, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Z. C. McCabe Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending June 4, 2021

Salt Waste Processing Facility (SWPF): Parsons personnel inadvertently transferred approximately 100 gallons of flush water to the Alpha Sorption Tank while attempting to prime a wash water transfer pump. Prior to the inadvertent transfer, Parsons personnel repaired a set screw on a three-way valve and then successfully completed the necessary post-maintenance testing (PMT). With the PMT completed, operations and maintenance personnel discussed in which position to leave the valve; the work order did not specify. Operations personnel decided to place the valve in a cascade status without further manipulation, which allows the Basic Process Control System to manipulate the valve based on the process. The following shift, Parsons personnel commenced a pump priming procedure, an operation that involves manual system alignment. This procedure did not instruct the user to verify the valve alignment, thus the previously repaired valve was left as-is. This left the flow path to the Alpha Sorption Tank open. Shortly after they initiated flow, a control room operator noted the unexpected increase in the Alpha Sorption Tank and took the appropriate actions to halt the operation. Discussions during a fact-finding meeting largely focused on ensure the pump priming procedure (and other manually-aligned transfer technical work documents) had the appropriate alignment specification and verification. The resident inspector believes this is an appropriate solution to this specific issue. However, the resident inspector noted that there was no discussion regarding the broader apparent causes beyond the lacking technical work document, and specifically asked about any expectation to manually verify your flow path prior to initiating a transfer. Parsons personnel stated that they do have this expectation, which will be reinforced via shift orders until all applicable procedures can be revised.

Defense Waste Processing Facility (DWPF): The resident inspector observed a field emergency preparedness drill that involved an injured and contaminated worker at 511-S. To avoid impacts to the actual control room, SRR personnel ran the control room portion of the drill with a separate shift compliment out of the DWPF simulator. The drill players included control room personnel, operations personnel, radiological protection department, SRS Operations Center, and Emergency Medical Technicians. Players, controllers, and observers noted several communication issues that were largely due to drill play in the DWPF simulator. For instance, not all personnel were provided with the simulator radios, so the control room was not informed as promptly or as often as anticipated. Multiple personnel noted that some of these issues will need to be resolved if control room drill participation is out of the DWPF simulator going forward as intended.

Tritium Extraction Facility (TEF): Last week during the simulator scenario training conducted focusing on operating the facility with only on glovebox stripper system blower, each shift noted an issue with the electronic procedure (see 5/28/2021 report). The procedure did not allow the operator to resume the extraction after aborting. This scenario had not occurred in past. TEF personnel were able to modify the procedure to resolve this issue and have entered the extraction window for the first of six remaining extractions planned this calendar year.