

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 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 October 6, 2017

Salt Waste Processing Facility (SWPF): Parsons completed their corrective actions for Phase 2 (see September 22 and 29, 2017 reports) and began restoring the Basic Process Control System and other systems for habitability and safety, many of which have been shut down since Tropical Storm Irma. Meanwhile, Parsons has been working on the corrective actions required for Phase 3, which would allow resumption of testing with water and associated operations, maintenance, and construction activities. The resident inspectors (RI) met with DOE and Parsons management to discuss these corrective actions and observed a Senior Review Board meeting on this topic. The RIs provided feedback on the shift operations manager (SOM) level of knowledge interviews concerning the questions asked, how they were asked, and how the responses were evaluated and questioned the qualifications of those performing senior supervisory watch (SSW). DOE oversight personnel had the similar observations and concerns. DOE directed Parsons to formally assess the SOM qualification process, requalify all SOM's to the updated SOM qualification process (including an oral board), implement a training and qualification program for the Operations Manager and their deputy, and implement compensatory measures (i.e., full-time SSW in the control room) until the SOM Proficiency Verification Plan is complete. DOE also directed Parsons to define qualification requirements for personnel assigned as SSW and document their qualifications. Finally, DOE directed Parsons to submit to them a Deliberate Operations Plan for concurrence prior to resumption of testing activities.

DOE also informed Parsons they could not approve the SWPF safety basis. The deficiencies noted by DOE included hazard identification tables did not fully reflect as-built configuration, hazard screening step is missing or not documented, multiple potentially bounding hazard scenarios not considered, and a control that may not perform its mitigation function post-explosion. DOE has requested a corrective action plan

Emergency Management: DOE awarded a task order to conduct an independent analysis of alternatives for the Emergency Operations Replacement Project.

H-Canyon Exhaust (HCAEX) Tunnel: SRNS is drafting a revision to the evaluation of the safety of the situation for the HCAEX Tunnel potential inadequacy in the safety analysis (see 8/18/17 report). The potential revision will allow H-Canyon to transfer the contents of a plutonium (Pu) storage tank into a HB-Line tank. The H-Canyon Pu storage tank is at its heel and is judged to contain less than 250 grams of Pu. Upon receiving this solution, HB-Line would be able to process the remaining Pu on hand and use the transferred solution to flush the process lines and tanks. According to SRNS personnel, transferring this solution will only marginally increase the HB-Line risk to the collocated worker. The increase in risk would be temporary and would allow them to flush the oxide production process and eventually transfer a more significant quantity of Pu back to H-Canyon. HB-Line personnel are evaluating whether it would be practical to process the remaining Pu and flush the process with a non-fissile solution.