DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 6, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman and Z. C. McCabe Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending December 6, 2019

Salt Waste Processing Facility (SWPF): In the final report for the contractor Operational Readiness Review (ORR), three objectives (fire protection, radiation protection, work planning and control) were graded Not Met. These three objectives contain six criteria that were Not Met and three that were Partially Met. In addition to ten findings the report describes several dozen additional negative observations, many of which appear to be significant and several of which are related to Integrated Safety Management guiding principles and core functions. The report does not explain why these were not considered to be findings, but the ORR team used criteria in DOE-HDBK-3012, *Team Leader's Good Practices for Readiness Review,* and these tend to have a high threshold (e.g., unacceptable impact on safety of facility). Two days after approving the final report, Parsons declared to DOE that they were ready to start the DOE ORR. This was highly unusual since they had only completed 5 of the 21 pre-start corrective actions from their ORR and many of the open pre-start corrective actions are not due until the day before the DOE ORR or after it. The scope of the planned corrective actions are also very narrowly focused (e.g., revise two radiation protection plans). DOE management has expressed serious concerns with the above and plans to issue direction to Parsons imminently.

Tritium Facilities: As part of an ongoing evolution, construction personnel were tasked with cutting a piece of two inch conduit containing fiber optic cables. However, construction personnel cut the incorrect conduit nearby that contained seven power cables. Fortuitously, six of the power cables were out of service and the seventh was de-energized as part of a single point lock-out. Those involved with this task flagged the correct line of conduit throughout the facility, but not as a means to guide the cutting. A flag was nearby but out of sight of the individual performing the cut on a scissor lift. The personnel involved did not discuss this part of the evolution as a critical step, and they also did not utilize available human performance tools such as peer checking to ensure they were cutting the appropriate conduit.

After replacing a moisture probe and a check valve on the tritium process stripper (TPS) system, maintenance personnel requested to do a loop check calibration as planned. The shift manager tasked a control room operator (CRO) with determining available options for achieving the system pressure required in the work package. Rather than an approved process, the CRO suggested using four steps in the TPS Operations procedure. The shift manager agreed and initialed the procedure along with the CRO indicating what portion they would perform. Performing only this portion of the procedure left a valve in the incorrect configuration which resulted in blowing a rupture disk once the CRO turned on the metal bellows pump. Neither the site conduct of operations manual nor the procedure used allows for selecting portions of a procedure to perform without fulfilling the prerequisite actions and performing the rest of that section. Additionally, there was no pre-job brief for this portion of this task and only an informal discussion that was incorrectly described as a pre-job brief during the issue review. As a compensatory measure to these and other recent events the management team has implemented additional management oversight in the form of Senior Supervisory Watch of specific activities.