

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 27, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman, Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending December 27, 2019

Salt Waste Processing Facility (SWPF): Parsons submitted to DOE corrective action plans for issues identified in the contractor Operational Readiness Review (CORR) final report and for issues tracked in the commitment tracking system related to work planning and control, radiation protection, emergency preparedness, and fire protection. Other issues noted in the COR final report related to other programs are being handled separately by Parsons. Parsons corrective actions for work planning and control focus on cancelling maintenance instructions and developing new work orders instead plus providing for the segregation and storage of small safety significant parts. Many of the issues noted by the CORR dealt with field performance issues, some of which were simply due to lack of proficiency, but others were due to improper techniques (e.g., decontamination techniques, response to radiological issues). Several of the corrective actions rely on mock radiological exercises and maintenance demonstrations, but are silent on whether additional training, field mentoring, and/or feedback will be used to improve performance. For example, the sole corrective action for 8 radiological protection field issues is to perform effectiveness reviews and assessments on mock rad exercises and evolutions, but effectiveness reviews usually focus on reviewing the effectiveness of some other specified corrective actions. Similarly, it was not obvious whether switching to work orders and performing a series of maintenance demonstrations would resolved issues with overuse of generic job hazards analyses (JHAs), JHAs that did not capture hazards and controls, and insufficient contingency planning in case things go wrong in the field.

The resident inspector (RI) observed technicians changing a glovebox glove in the laboratory. During the CORR, workers ran into problems during two glove change demonstrations. This evolution went smoothly. The resident inspector pointed out that a technician with long hair might want to tuck that hair inside the lab coat because in the tight corner, the hair was repeatedly brushing up against glovebox windows and pushed inside gloves that had not been surveyed.

Defense Waste Processing Facility: Workers noticed that the level in the Recycle Collection Tank (RCT) was slowly increasing. The subsequent investigation detected that the Slurry Mix Evaporator Condensate Tank was slowly decreasing. The suspected cause is that a valve was not fully closed or was accidentally bumped. This is an established flow path. The main impact was that another RCT sample was needed given its contents had changed since the previous sample.

Building 235-F: The RI reviewed the revised fire scenarios for 235-F, the revised seismic scenarios for the Building 235-F material-at-risk, and the updated inputs and assumptions used to support nuclear safety calculations. The updated inputs reflect recent nondestructive assay data. Seismic impact fractions are calculated for each cell and glovebox assuming manipulator arms or mobile lifts break cell/glovebox windows during a seismic event and the broken glass shards impact Pu-238 on the cell/glovebox floor. A welder power supply tank and a hydraulic reservoir suspected of containing combustible liquids have been verified as being drained.