

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2013

TO: S. A. Stokes, Acting Technical Director
FROM: D. L. Burnfield, Site Representative
SUBJECT: Savannah River Site Weekly Report for Week Ending July 12, 2013

Mark Sautman was on leave this week.

Rain Water Intrusion: The Augusta/Aiken area has received an average of approximately 0.5 inches per day of rain for several weeks. During the last week, a number of items of interest have cropped up because of the rain, described below.

Defense Waste Processing Facility (DWPF): The ventilation tunnel that runs from the vitrification building to the sand filter has three sumps to accommodate rainwater intrusion into the tunnel. There has been a significant rainwater accumulation in each of those sumps. The pump in the upper sump is not operating. Water has accumulated in the sump several inches above the expected level. The water appears to contain high levels of contamination (approximately 10 mrem/hour β/γ has been detected several inches above the water). SRR is preparing to remove the excess water, and send workers into the sump to access the pump so that it can be replaced. The workers will be required to descend a ladder approximately 20 feet wearing a plastic suit to perform this work. To add further complications, a sink hole has opened up near the location where SRR would like to place the crane that is necessary to lift the contaminated pump.

F-Tank Farm: While the site rep and a facility rep performed field oversight of F-Tank Farm, they noticed two gauges on the catch tank (located on the east side of the tank farm) that were off scale. While these gauge are not the actual gauge used for surveillance of the tank level and are not routinely calibrated they were in service and functioning. The gauge actually used to measure the depth of water in the catch tank read 93 inches (the scale of the gauge is 0-100 inches). The water level is approaching the high alarm level. Normally SRR would drain the water through F Pump Pit 1 to Tank 33 (located on the west side of the tank farm); however, this cannot be done because of the work being done on F Pump Pit 1. SRR is preparing to sample the catch tank. Following this sampling, SRR will install a temporary modification to transfer the contaminated water from the catch tank to Tank 33 using an above ground transfer line.

H-Tank Farm: SRR has suspended the operation of the submersible mixing pumps in Tank 13 because the rainfall resulted in an annulus conductivity probe alarm.

Saltstone: SRR last performed a production run two weeks ago. During this run, the Salt Disposition Unit 2A drain water pump failed. This week SRR performed instrument comparisons between recent SDU 2A camera inspections and pre-installation pictures of the drain water pump and found a foreign object in the inlet of the pump. SRR is now planning for removing and repairing the pump. They have placed further processing on hold until the 2A drain water pump is repaired.

HB-Line: The facility representative for HB-Line previously identified that the facility personnel completely evacuate the control room during a criticality drill. The site had previously determined that this was acceptable for several reasons including hearing conservation. This week DOE-SR reversed this practice and told the contractor that they should provide the necessary personnel to occupy the control room during all drills in case of an actual emergency. The necessary safety basis documents will have to be revised.