

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 28, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman, Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending December 28, 2018

L-Area: During a recent night, the only person inside the facility heard a Kanne or tritium air monitor (that monitors a nearby process room) alarming and called the K-Area Shift Operations Manager (SOM), who has the command function at night. The SOM contacted the on-call Basin first line manager (BFLM). The BFLM was unable to contact the L-Area Operations Manager, which is the expectation. The BFLM and SOM agreed that they did not need to respond that night to the alarm because the person in L-Area was avoiding the potentially affected area and because that person had checked the Kanne and reported that it was just a spike. There is also conflicting information whether the SOM instructed the person in L-Area to acknowledge the audible alarm. In any case, the person at L-Area was not trained or authorized to read the Kanne's chart recorder or acknowledge the alarm. Furthermore, the chart recorder was known to operate intermittently and had not been advancing for several hours that night so you could not determine from the chart whether it was a momentary spike or a prolonged increase. The next morning, the BFLM inspected the Kanne and its chart and noted the visual alarm was still on, but not the audible one. Although not trained or authorized, he then inadvertently reset the Kanne alarm. The L-Area SOM notified the Radiological Protection Department (RPD) of the alarm after his turnover. RPD inspectors are the only people authorized and trained to acknowledge and reset the Kanne alarms. Nearly seven hours after the alarm was initially noticed, a RPD inspector surveyed the process room and confirmed there was not actually a release of tritium. RPD then spent some time trying to figure out why neither the audible or visual alarm was still on because the SOM had not told them that the alarm had previously been acknowledged and reset. There was also a several hour period where the process room was not properly barricaded.

SRNS is planning to issue procedure guidance to better clarify the expected response to L-Area local alarms when K-Area has the command function and is issuing a standing order in the interim. Furthermore, people who are not trained or authorized will not be allowed to read or operate monitoring equipment. The resident inspector highlighted other issues: the lack of three-way communications when discussing emergency response actions, the reliance on a chart recorder to make decisions when it was not tagged out to indicate its unreliability, and whether there are other local alarms that could indicate the presence of a hazardous situation while there are people present who are not trained to interpret or respond to those alarms.

235-F: The removal of loose material in the cell 1 maintenance cabinet resulted in the removal of ~15 grams of plutonium or roughly 75% of its initial inventory. Workers are now removing loose material in cell 1, which has the largest source term. Workers use a hoe to consolidate dust and corrosion products on the cell floor, which are then scooped into cans. Meanwhile, other loose items are picked up by hand with protective gloves (e.g., old product cans) or picked up with tongs and hooks. The cans and items are then placed in a tote bag. One challenge is moving the bags about three feet to the side of the glovebox gloves where there is an opening for the maintenance cabinet. Another challenge are several cables that are getting in the way. SRNS is developing/identifying tools to reach/push items around the corner and to cut the cables.