

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 11, 2015

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman, D. L. Burnfield, and Z. C. McCabe, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending December 11, 2015

F-Area: At approximately 2300 on Monday evening F-Area experienced a power failure when two phases of the 13.8 kV 3A and 3B feeder switch shorted. After inspection of the switch and discussions with the DOE facility rep and the facility manager, it appears that a lightning arrester failed catastrophically resulting in the short. Power was temporarily lost to F-Canyon and Building 235-F, and a power transient was experienced in the F/H Lab. The diesel generators for the canyon and Building 235-F (including generators that support ventilation) started as expected, and the exhaust fans operated as designed. The transient in the labs caused a reduced flow ventilation upset in the Building 772-F. This condition was reset. Site services restored power to all of the affected buildings without a spread of contamination.

HB-Line: Workers on the sixth level were preparing to complete a task requiring the use of breathing air. They connected the hoses to the manifold and turned on the supply. Shortly after that a member of the site Independent Evaluation Board (IEB) examined the manifold and found the workers had failed to notice the required annual inspection of the manifold was past due. Operators are trained to examine all tags on equipment before operating the equipment, but missed this tag, possibly because of its location within the box holding the manifold.

The site reps observed an oral board for an HB-Line shipping first line manager. The site reps consider that SRNS conducted the oral board professionally and followed site wide guidance.

L-Area Tritium Monitor: On December 1, L-Area personnel performing preventative maintenance on a Kanne Tritium Monitor (Kanne) recorded a source reading that was out of the acceptable range specified for that Kanne. However, the Kanne was not declared inoperable or taken out of service. This oversight was not recognized until December 6. At that time, the proper personnel were notified, and Radiological Protection (RP) took the Kanne out of service. Upon further inspection, RP determined that the Kanne was operating correctly and it was placed back into service. During an issue review L-Area personnel identified multiple corrective actions. One corrective action will be to investigate whether the procedure can be improved. A potential procedure improvement is making the table used for recording maintenance data more user-friendly. As written, the table is cumbersome to read and fill out. Additionally, the procedure currently does not define how long a source must be held to the Kanne when performing maintenance. The procedure instructs the reader to allow the needle to stabilize when performing a source check. However, during the IR L-Area personnel explained that the needle can move very slowly, which could cause them to believe the needle has stabilized.

H-Canyon Second Uranium Cycle: Last week H-Canyon personnel began operation of the second uranium cycle of the separations process with non-radiological simulant hot feed. Last week's efforts were halted when a reductant feed general service pump failed. The pump was replaced and the second uranium cold run was resumed this week. The site reps observed control room operations this week from the start of second uranium operations through the initiation of the simulated hot feed without any significant issues.