

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 6, 2018

**TO:** Steven A. Stokes, Technical Director  
**FROM:** Douglas J. Brown, Cognizant Engineer  
**SUBJECT:** Sandia National Laboratories (SNL) Report for March 2018

**DNFSB Staff Activity:** On March 26–30, 2018, two Defense Nuclear Facilities Safety Board (Board) staff members observed a new series of pipe over-pack container fuel pool fire tests at the SNL Thermal Test Complex.

**Auxiliary Hot Cell Facility (AHCF) Campaign 18 Update:** On March 6, 2018, SNL personnel relocated the last Campaign 18 item from an Annular Core Research Reactor (ACRR) floor storage vault to the AHCF. On March 21, 2018, SNL suspended programmatic operations after identifying damage on the South High Bay crane during a crane inspection. SNL identified the damage to the crane's electrical contacts (shoes) which was caused by discontinuities between the electrical rail sections. SNL maintenance personnel placed the crane in a non-operational status until either the electrical rail insulation can be repaired or rails replaced. SNL is working to locate and procure replacement parts.

**ACRR Reactivity Control System Upgrade (RCSU) Update:** As discussed in the November 2017 monthly report, SNL has ceased programmatic operations at ACRR to perform the final transition and switchover to the new reactivity control system on March 27, 2018. The Sandia Field Office (SFO) directed a readiness assessment prior to restart in accordance with the requirements and guidance contained in the Department of Energy (DOE) Order 425.1D, *Verification of Readiness to Start-up or Restart Nuclear Facilities*, and DOE Standard 3006-2010, *Planning and Conducting Readiness Reviews*. SNL has planned for several major milestones. After the switchover, RCSU acceptance testing and calibration is planned for mid-April to mid-May 2018. An RCSU management self-assessment is expected in the latter half of May 2018. A contractor readiness assessment is planned for in the latter half of June 2018. A final federal readiness assessment should take place in late July to early August 2018. The common goal of all assessments is to evaluate the facility, equipment, personnel, safety features, operating procedures, and safety/support systems to support safe programmatic operations.

**Sandia Pulse Reactor Facility (SPRF) Fire Fighting Directive:** On March 22, 2018, SNL issued an interim directive to accommodate emergency response personnel (i.e., fire fighters) into the facility. The directive includes the conditions, limitations, and the posting required. This directive is interim guidance until the safety basis and operating procedures are updated to reflect the change. The operating procedures are currently being updated, but the safety basis documents will not be updated until the next annual update due in November 2018.

**SPRF Umbilical Rerouting Update:** As discussed in the February 2018 monthly report, SNL personnel resumed rerouting replacement cabling between the SPRF critical experiment control room in the Falcon's Nest and the critical experiment structure in the Reactor Room. Cable lay down has been completed. Terminal connections will be made after completion of two hands-on criticality training courses scheduled for the latter half of April 2018. SNL now anticipates completing the project in May 2018.