

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 3, 2020

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer  
**SUBJECT:** Sandia National Laboratories (SNL) Report for June 2020

**COVID-19 Response:** During June 2020, SNL continued operations at a number of facilities, including Technical Area V (TA-V), while a majority of Sandia Field Office (SFO) and National Technology and Engineering Solutions of Sandia, LLC (NTESS) staff continued to telework in response to the COVID-19 pandemic. The SNL and SFO return-to-site plans, which include four phases, remain in Phase 1.

**Annular Core Research Reactor (ACRR) Facility Safety Basis Annual Update Approval:** On June 2, 2020, SFO approved the 2019 Annual Update to the ACRR Facility Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) documents. SFO independently reviewed changes to the DSA and TSR documents and the supporting unreviewed safety question determinations (USQD), evaluations of potential inadequacies in the safety analysis (PISA), and actions for assigned tasks to address operational experiences. SFO approved the Annual Update and the additional changes to support experimental activities with no Conditions of Approval. SFO also noted that the ACRR Facility Safety Basis continues to provide reasonable assurance of adequate protection to the workers, the public, and the environment from the identified hazards associated with ACRR operations and meets the requirements specified in 10 CFR 830, Subpart B, *Safety Basis Requirements*. SFO directed NTESS to confirm implementation of the approved Annual Update within 120 calendar days.

**ACRR Status:** On June 8, 2020, NTESS completed the first seven high-priority experiments in support of mission-critical programmatic work. The ACRR then entered maintenance mode, which is scheduled to continue through August (see SNL Monthly Reports for March 2020, April 2020, and May 2020). During this maintenance period, ACRR staff members will inspect a number of ACRR fuel elements and control elements, replace “in-core” instrumentation, and remove the 15-element fuel rack from the ACRR pool. The ACRR is scheduled to resume operation in September to complete the final three series of high-priority programmatic experiments.

**Mixed Waste Landfill (MWL) Report:** On May 27, 2020, SFO and NTESS submitted the *Mixed Waste Landfill Annual Long-Term Monitoring and Maintenance Report, April 2019 – March 2020*, to the New Mexico Environment Department. The report documents the long-term monitoring, inspection, and maintenance activities conducted at the MWL during the reporting period. The report noted that all monitoring activities were conducted in accordance with MWL Long-Term Monitoring and Maintenance Plan requirements. No monitoring trigger levels were exceeded, all maintenance and inspection activities were completed in accordance with requirements, and all evapotranspirative cover and associated site controls were performing as designed. The MWL site conditions continue to be protective of human health and the environment.

**Alternate Methodology for DSA and TSR for SNL Reactor Facilities:** On June 5, 2020, SFO approved the NTESS Alternate Methodology Proposal for DSAs and TSRs at SNL Reactor Facilities (see SNL Monthly Report for November 2019). SFO and the National Nuclear Security Administration (NNSA) recognized this landmark as the first approval of an Alternate Methodology for preparing a safety basis in accordance with 10 CFR 830 within NNSA.