

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 5, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer  
**SUBJECT:** Sandia National Laboratories (SNL) Report for January 2021

**SNL Operating Status in Response to COVID-19:** On January 8, 2021, the New Mexico Governor issued Executive Order 2021-01 extending the Updated Public Health Emergency Orders and imposing county-by-county restrictions due to COVID-19. The order remains in effect through February 5, 2021. SNL is an essential business and is exempt from this order. The operating status of SNL remained unchanged during January. The Sandia Field Office (SFO) and National Technology and Engineering Solutions of Sandia, LLC (NTESS) continued to operate under Phase 2 of their return-to-site plans, which encourage maximum telework for SFO and NTESS staff members.

**Contractor Readiness Assessment (CRA) for In-Service Fuel Element Inspection Activities:** From January 15 to January 28, 2021, NTESS completed a CRA as part of the readiness assessment activities for in-service fuel element inspection at the Annular Core Research Reactor Facility (ACRRF). The CRA, which was primarily conducted remotely due to the COVID-19 pandemic, was a performance-based review of the operational readiness of the facility, staff, and documentation for startup and execution of in-service fuel element inspection at the ACRRF. CRA team members performed their assessment in accordance with the 15 Criteria and Review Approach Documents (CRADs) in the CRA Implementation Plan. The CRA team reviewed 175 documents and conducted 35 interviews primarily via WebEx. On January 26–27, 2021, four CRA team members traveled to SNL to observe performance demonstrations and an operational drill. The CRA team concluded that all CRA Objectives were met and 74 out of 76 Criteria were met. For two Criteria, the CRA team observed weaknesses in some aspects of Human Performance and Formality of Operations. During their out-brief presentation on January 29, 2021, the CRA team identified no pre-start Findings and no post-start Findings. The CRA team concluded that ACRR personnel and Sandia management had adequately demonstrated readiness of equipment, procedures, and personnel to commence in-service fuel cladding inspection activities included in the scope of the CRA. The CRA team expects to complete their final report (following factual accuracy checks) by February 8, 2021. The Federal Readiness Assessment (FRA) for this activity is scheduled for late March 2021.

**Second Quarter Fiscal Year 2021 Startup Notification Report (SNR) Approval:** On January 5, 2021, NTESS submitted the Second Quarter Fiscal Year 2021 SNR to SFO. NTESS proposed two activities for potential readiness assessment this quarter. The two activities are Pathfinder Fuel Packaging and Shipping Preparation for the Sandia Pulsed Reactor Facility (SPRF) and Fuel-Ringed External Cavity Version II (FREC-II) Operations for Class I and Class II Experiments for the ACRRF. NTESS noted that the Readiness Level Determination (RLD) team evaluated the ACRRF's proposed activity for conducting Class I and Class II experiments with the FREC-II coupled. The RLD team noted no proficiency or safety concerns related to these experiments and no changes to the FREC-II since its last use. Although the RLD team determined that a readiness assessment was not required, the Facility Manager elected to perform a Level 3 Readiness Assessment for this activity. NTESS stated that the Plan of Action for Fielding Class III Experiments with Fissionable Material at ACRRF will be provided to SFO in January 2021. The current proposed start for the Class III Experiments FRA is September 2021. NTESS noted that there may be additional changes to their notional readiness assessment schedule and that any changes will be communicated to SFO through quarterly SNRs or sooner, if necessary.