

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer
SUBJECT: Sandia National Laboratories (SNL) Report for August 2023

Defense Nuclear Facilities Safety Board (Board) Staff Interactions: On August 22–24, 2023, the Board’s cognizant engineer for SNL and members for the Board’s technical staff were on site to observe the 2023 Annual Emergency Exercise and conduct routine oversight. The cognizant engineer met with the Technical Area V (TA-V) Senior Manager, the Nuclear Facility Operations Manager, and the TA-V Safety Basis, Quality, and Assurance Manager, and discussed the status of facilities, staffing and operations in TA-V. In addition, the Board’s staff team met with the Sandia Field Office (SFO) Manager, Deputy Manager, and Senior Technical Safety Advisor to discuss observations from the annual exercise and SFO oversight activities.

New Emergency Operations Center (EOC): On August 7, 2023, SNL hosted a ribbon cutting for its new EOC. The EOC will house the National Nuclear Security Administration and SNL emergency management staff offices, along with the 24/7 Emergency Management Communications Center. The communications center will feature dedicated spaces for incident management and coordination, as well as multi-purpose training rooms. Functions of the EOC include round-the-clock coverage during emergencies or crises. The new facility is equipped with improved tools and enhanced capabilities to collect, analyze, and share incident information with internal and external emergency response organizations. The EOC has redundant mechanical and electrical systems, a backup generator, showers, a kitchen with a pantry, a dining area, and temporary sleeping areas, ensuring it can operate independently for at least 72 hours. The EOC is scheduled to begin full operations by early 2024.

FY 2023 Annual Emergency Exercise: On August 23, 2023, SNL conducted its FY 2023 Annual Emergency Exercise at the Microsystems Engineering, Science, and Applications 858 Complex. The purpose of the exercise was to test and validate the effectiveness of SNL’s Emergency Response Organization through implementation of the site’s emergency plan and procedures, Department of Energy Order 151.1D, *Comprehensive Emergency Management System*, and the NA-41 *Criteria and Review Approach Document (CRAD) Handbook*. The exercise scenario included a simulated arc flash-explosion of a high-voltage electrical automatic transfer switch and a chemical-related incident that included multiple simulated casualties at the 858 Complex. The exercise included participation by the SNL EOC, SNL Security, Kirtland Fire Emergency Services, SNL Emergency Medical Services, Presbyterian Hospital, the City of Albuquerque, and Albuquerque Ambulance Services. The Board’s staff will evaluate the after-action report for this exercise when available.

Fourth Quarter FY 2023 Startup Notification Report (SNR): On August 3, 2023, SFO approved SNL’s fourth quarter FY 2023 SNR. In the SNR, National Technology and Engineering Solutions of Sandia, LLC determined that three activities in the next twelve months require readiness reviews. These activities include transient rod withdrawal operations at the Annular Core Research Reactor (ACRR) Facility, Hazard Category 3 material-at-risk handling and storage at the Sandia Pulsed Reactor Facility, and irradiated ACRR fuel X-ray at the Auxiliary Hot Cell Facility. SFO agreed with the readiness level determination for the three activities and approved the SNR.