

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 2, 2015

**TO:** Steven A. Stokes, Technical Director  
**FROM:** John R. Mercier, Cognizant Engineer  
**SUBJECT:** Sandia National Laboratories Report for September 2015

**Staff Activity:** During the week of September 21–24, 2015, a Defense Nuclear Facilities Safety Board's (Board) staff member conducted his first visit to Sandia National Laboratories (SNL) as the Board's Cognizant Engineer for the site. The staff member walked down several Category 2 & 3 nuclear facilities in Technical Area V and met with numerous scientists, engineers, and managers responsible for nuclear facility and worker safety. The site staff provided a familiarization briefing on their nuclear facilities and coordinated several discussions centered on their safety management programs. The federal Sandia Field Office (SFO) Manager, Deputy Manager, Assistant Managers, and several subject matter experts introduced themselves to the Board's staff member and discussed their oversight roles and responsibilities. Overall, the Board's staff member gained insight on the organizational structures of SFO and SNL, and how SNL is implementing requirements flowed down from Title 10, Code of Federal Regulations, Part 830 (10 CFR 830), *Nuclear Safety Management*, and 10 CFR 835, *Occupational Radiation Protection*.

**Annular Core Research Reactor Facility (ACRRF) Criticality Safety Infraction:** On September 8, 2015, a contractor was on site performing work at the ACRRF and was making measurements in preparation to install an air compressor and associated piping. The contractor moved a safe that was on wheels to get to a location where he could make a measurement without first contacting facility staff for approval. The safe contained fissile material and was moved within the designated criticality safety stand-off distance for other fissile materials located in the High Bay. Upon discovery of the condition, facility staff immediately evacuated the High Bay. Criticality safety engineers subsequently concluded there was no imminent danger of a criticality event because of the limited quantities of fissile material in the High Bay. The Radiological and Critical Safety Committee held a critique on September 9, 2015, and a causal analysis was initiated on September 10, 2015. The site reported the infraction as a degradation of controls for criticality safety in an Occurrence Report on September 11, 2015. The Board's Cognizant Engineer confirmed compensatory measures to escort contractors working in the High Bay and to apply wheel clamps to the mobile safe during his walk down of the ACRRF on September 22, 2015. The Board's Cognizant Engineer intends to review the causal analysis report when it becomes available and verify implementation of corrective actions.

**Nuclear Explosives Safety Directives:** The SNL contract amended on September 24, 2015, includes implementation of updated nuclear explosive safety directives published in November 2014 and January 2015.