

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 7, 2017

TO: Steven A. Stokes, Technical Director
FROM: Douglas J. Brown, Cognizant Engineer
SUBJECT: Sandia National Laboratories Report for March 2017

Staff Activity at Sandia National Laboratories (SNL). There were no onsite Defense Nuclear Facilities Safety Board (Board) staff reviews or oversight visits in March.

Annular Core Research Reactor (ACRR) – Reactivity Control System Issues. The Reactivity Control System (RCS) has seen a number of rod-following and alignment errors over the last month. The errors have involved safety (SR), transient (TR) and control (CR) rods. Operations and Engineering personnel have been monitoring the system in an effort to isolate the source of the CR errors. For example, CR “5” and CR “6” had rod-following and alignment errors during operations on March 8, 2017. On March 15, 2017, CR “6” continued to experience a rod-following error. This led to the replacement and retest of the CR “6” Next Step rod drive translator. Additionally, TR “A” failed to drive in during an auto run down at the completion of daily operations on March 9, 2017. The next day, Sandia personnel replaced the TR “A” drive motor and it tested satisfactorily. In all cases, the RCS was assessed and determined to be “operable,” with the concern being categorized as programmatic vice safety-related. ACRR programmatic operations continue as scheduled.

Nuclear Maintenance Management Program (NMMP) Self-Assessment Agenda. The Board’s staff reviewed the February 2017 final report of the contractor’s NMMP self-assessment at Technical Area V (TA-V). The lack of a contractor self-assessment was originally identified during the follow-up TA-V Conduct of Operations and Maintenance Review conducted by the Board’s staff in September 2016. An informal agenda was transmitted to SFO on March 15, 2017 that will be utilized to address Board’s Staff questions related to the assessment. This discussion will be executed during the next quarterly cognizant engineer site visit to SNL.

Sandia Pulsed Reactor Facility (SPRF) Umbilical Rerouting. A common conduit and common multiple conductor cable is used to connect the reactor building terminal box to the reactor stand connector box. This cable is commonly referred to as the umbilical cord and must be flexible to accommodate the lifting of the reactor stand. SPRF is currently in the process of rerouting the umbilical cord in an effort to eliminate open cable runs across the walkways.