DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 5, 2016

TO: Steven A. Stokes, Technical Director
FROM: John R. Mercier, Cognizant Engineer
SUBJECT: Sandia National Laboratories Report for July 2016

Staff Activity at Sandia National Laboratories (SNL). During July 25-26, 2016, Board Chairman J. Connery and Board Member B. Hamilton—accompanied by staff members J. Mercier, N. Khalil, and Z. Beauvais —visited SNL for familiarization. The Board members walked down the defense nuclear facilities, toured the weapons display area, and met with key personnel from the New Mexico laboratory and the Sandia Field Office (SFO).

Annular Core Research Reactor Facility (ACRRF)—Safety Basis Documentation. On July 19, 2016 SFO issued their Safety Evaluation Report Addendum to the *Sandia Annular Core Research Reactor Safety Basis 2015 Annual Update (Change Notice 9)*. SFO independently reviewed the proposed page changes along with the supporting unreviewed safety question determinations, evaluations of potential inadequacies in the safety analysis, and actions for assigned tasks to address operational experiences. SFO issued their approval to the ACRRF Safety Basis update conditional on implementation of administrative controls that adjust Material-At-Risk limits for experiment classes at the ACRRF. SFO concluded that the ACRRF Safety Basis continues to provide reasonable assurance of adequate protection to the workers, the public, and the environment from the identified hazards associated with its operation, and meets the requirements specified in 10 CFR 830, Subpart B, *Safety Basis Requirements*.

ACRR Transient Rod Failure. On June 28, Transient Rod "C" broke during pulse operations. The lower aluminum section of the transient rod assembly separated at a joint where it connects to the follower section of the assembly. SNL promptly stopped programmatic operations. SNL initiated removal of the rod on June 29. A backup transient rod was installed and evaluated to confirm equivalent performance before resuming programmatic operations on July 6, 2016.