

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2017

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

Staff Activity at Sandia National Laboratories (SNL). On September 12-14, 2017, the Defense Nuclear Facilities Safety Board's (Board) SNL Cognizant Engineer conducted a quarterly cognizant engineer site visit to include oversight and interaction with SNL and Sandia Field Office (SFO) personnel. On September 25-28, 2017, the Board's SNL Cognizant Engineer attended an SFO Facility Representative Training Session. On September 26-28, 2017, two Board's staff members attended the W88 Nuclear Explosive Safety Study Kickoff meeting.

Sandia Pulsed Reactor Facility (SPRF) Fire Suppression Update. On September 5, 2017, SFO staff (Safety Basis, Fire Protection, and Criticality Safety) met with NA-51 staff (Criticality Safety Program Manager, Criticality Safety SME, and Fire Protection SME) to discuss the SNL evaluation of potential fire suppression systems that could be installed at SPRF. Criticality safety analyses are being reviewed to determine if there are any limitations on the presence of water. The Criticality Safety Program Manager is also determining if there are any future plans to introduce materials that would prohibit a water-based fire suppression system. The next meeting to discuss the results is scheduled for October 3, 2017.

Auxiliary Hot Cell Facility (AHCF) – Basis for Interim Operation (BIO). As originally noted in the April 2017 monthly report, SFO was evaluating the longevity of the current AHCF BIO. Based on a revision in the Department of Energy (DOE) Standard (STD) 3011-2016, *Preparation of Documented Safety Analysis for Interim Operations at DOE Nuclear Facilities*, contractors with facilities having an existing DOE-approved Documented Safety Analysis (DSA) using the methodology of DOE STD-3011-94, or successor document, may continue operations under those DSAs, provided approved DSAs reflect the current facility status and operations. If a DSA is more than 10 years old and significant changes to the DSA or existing controls are warranted, the DSA should be reviewed and converted to the new DOE-STD-3011-2016, or to the DOE-STD-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*. Based upon this guidance, SFO has elected to defer the BIO decision until the end of FY-2018 given that the current BIO has not exceeded 10 years and some decisions are expected this coming year related to the Remote Handled Transuranic Waste at AHCF.

SNL Annual Exercise Update. As originally noted in the July 2017 monthly report, SFO and SNL were in the process of evaluating the active shooter exercise. *Sandia National Laboratories Full Scale Exercise 2017 (SNL FSE17) After Action Report* was approved on September 11, 2017. The exercise response was evaluated against 35 exercise objectives. SNL concluded that all 35 objectives were met. SFO was assigned and met four of those objectives. Additionally, SNL identified five findings, 11 opportunities for improvement, and two superior performances.

Sandia Emergency Management (EM) Training in Technical Area V (TA-V). On September 25-26 and 28, 2017, Sandia EM personnel conducted discussions, walkdowns, and drills, with participating TA-V facilities and Kirtland Air Force Base fire-fighting personnel. The evolutions were part of Sandia's EM annual familiarization and casualty response training.