

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 2, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Daniel B. Bullen, Ph.D., P.E., Cognizant Engineer
SUBJECT: Sandia National Laboratories (SNL) Report for June 2021

Defense Nuclear Facilities Safety Board (Board) Staff Interactions with SNL: On June 22, 2021, members of the Board's staff participated in a teleconference with National Technology and Engineering Solutions of Sandia, LLC (NTESS), and Sandia Field Office (SFO) staff members to discuss an upcoming conduct of operations review at SNL. The Board's staff members provided an overview of the topics of interest for this review which include in-service fuel element inspection at the Annular Core Research Reactor Facility (ACRRF), unirradiated fuel element inspection at the Auxiliary Hot Cell Facility, and recent hoisting and rigging incidents at the ACRRF. The Board's staff, NTESS, and SFO discussed the current schedule for activities to be reviewed and identified potential dates for the on-site portion of this review.

In-Service Fuel Cladding Inspections at the ACRRF: On June 7, 2021, SFO approved the Corrective Action Plan (CAP) for the *Federal Readiness Assessment for In-Service Fuel Cladding Inspections at the Annular Core Research Reactor* (see SNL Report for May 2021). On June 9, 2021, NTESS completed the corrective actions for the single prestart finding and requested that SFO authorize in-service fuel cladding inspections. In its correspondence, NTESS stated that additional short- and long-term corrective actions were proceeding as scheduled but did not impact readiness to initiate the in-service fuel cladding inspections. On June 17, 2021, SFO authorized startup of this activity. SFO noted that there were no prestart findings from the Management Self-Assessment and the Contractor Readiness Assessment. Based on the satisfactory closure of the prestart finding from the approved CAP, SFO authorized NTESS to start in-service fuel cladding inspections at the ACRRF. NTESS began in-service fuel element inspections on June 24, 2021.

Startup Oversight Plan - ACRRF In-Service Fuel Cladding Inspections: On June 10, 2021, SFO approved the *Startup Oversight Plan* for ACRRF in-service fuel cladding inspections. SFO noted that this plan describes how SFO will conduct and document its oversight of the SNL work activities detailed in the approved NTESS ACRRF *In-Service Fuel Inspection Startup Plan (FISP)*, Revision 3, dated 4/26/2021. The FISP describes the controlled, deliberate approach the Nuclear Facility Operations Manager will follow to achieve safe unrestricted fuel element inspections using the Fuel Element Inspection Jig at the ACRRF. SFO noted that this oversight activity supports enhanced oversight of the readiness review process demonstrating reasonable assurance of adequate protection of the workers, the public, and the environment.

Third Quarter Fiscal Year 2021 Startup Notification Report (SNR): On June 7, 2021, SFO approved the Third Quarter Fiscal Year 2021 SNR. In the SNR, NTESS identified four activities planned for the Technical Area-V nuclear facilities in the next twelve months and one activity that is completing the readiness review process. SFO agreed with the readiness level determination for three of the four activities but not with the checklist readiness assessment for the Portable X-Ray Activities at the ACRRF. SFO noted that the readiness level determination for the Portable X-Ray Activities is being updated due to new information. SFO will review this activity in the next submittal of the SNR. SFO approved the SNR with some conditions of approval.