

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 1, 2016

TO: Steven A. Stokes, Technical Director
FROM: Matthew P. Duncan, Cognizant Engineer
SUBJECT: Lawrence Livermore National Laboratory Report for December 2015

Plutonium Facility: LLNL management certified that the Centralized Waste Processing Line achieved a state of operational readiness to move forward with the contractor readiness assessment. The Centralized Waste Processing Line is a new glovebox located in Building 332, the Plutonium Facility. The glovebox is constructed of stainless steel. It contains a manually actuated self-contained hybrid nitrogen-water fire suppression system. It will be used to disposition legacy waste from 55 gallon drums. The waste will be sorted by hand into three waste streams: sharps, solids, and debris. Operations in the glovebox are limited to hazard category 3 quantities of nuclear material. Though similar waste handling activities are already performed in the facility, LLNL and LFO agreed that installation of this glovebox is a substantial modification to the facility, requiring a contractor readiness assessment.

Safety Basis: LFO approved LLNL's process and plan for implementing an NNSA supplemental directive originally published in 2011: NNSA SD 1027, *Guidance on Using Release Fraction and Modern Dosimetric Information Consistently with DOE STD 1027-92, Hazard Categorization and Accident Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports, Change Notice No. 1*. Except for one exclusion, the document states that the guidance should be applied to all NNSA personnel and to all NNSA nuclear facilities that will be operating after January 1, 2016. By April 15, 2016, LLNL plans to perform an analysis of all low hazard radiological facilities to verify that there are no accident scenarios that could result in significantly increased release fractions as compared to the default assumptions in the standard and supplemental guidance. LLNL plans to finish implementation of the supplemental guidance by September 30, 2016.