

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending March 13, 2015

Nuclear Criticality Safety (NCS)/Training Program: Recently, Special Nuclear Material Operations personnel began training to support the certification of a new group of material clerks for certain fissile material operations in Building 9215 (e.g., chip packing or movement of enriched uranium parts between machining stations). The site reps observed on-the-job training (OJT) evolutions and reviewed the training standards and materials linked to the material clerks' qualification profile in the Y-12 automated training database. After reviewing the qualification profile, the site reps expressed a concern to the Production Training manager regarding the lack of explicit training program-driven coverage of certain NCS requirements captured in procedure Y70-37-103, *Containers and Material Handling*. The administrative procedure contains more than 150 NCS requirements, though not all of these requirements apply to Building 9215 operations. Many of the requirements are general in nature, such as a requirement not to immerse fissile materials in liquids or a requirement to secure the closure device for the lid of a fissile-bearing container prior to leaving it unattended. The responsible Criticality Safety Officer (CSO, production personnel who serve as the primary interface between NCS engineers and the operating organization, oversee implementation of NCS requirements, and support operator NCS training) had provided training on the requirements applicable to Building 9215, but this training was not linked to the material clerk certification process. In addition, some requirements are covered through the certification-driven OJT of process procedures; however, this does not provide comprehensive coverage of all applicable requirements since not all requirements in Y70-37-103 have been flowed into process procedures.

In response to these concerns, the Production Training manager added an operational evaluation of the Y70-37-103 requirements (and associated preparatory materials) to the qualification profile for the material clerks. This evaluation was adapted from an existing Building 9212 evaluation on the same procedure. The Production Training manager identified a similar shortcoming in the training requirements for an analogous container and material handling procedure in Building 9204-2E. The Production Training manager is working with the area CSO to develop training content to add to the qualification profile of personnel who perform operations to which these requirements apply. The Production Support manager is working with the training program and procedure process functional area managers to determine if a broader issue exists related to the training of field-based requirements contained in administrative procedures.

Building 9212: This week, electricians observed a spark when using a reciprocating saw to cut through an electrical conduit in the headhouse area of Building 9212. The scope of work involved the replacement of lighting fixtures and an electrical repair in two adjacent hoods. Prior to starting work, an authorized employee conducted a lockout/tagout (LO/TO) to isolate the electrical current, but these electrical lines are not documented on verified electrical drawings making the identification of all appropriate isolation points less reliable. The work package directed the electrician to conduct several checks to ensure the line is de-energized, which included a zero energy check using a handheld meter prior to disconnecting the fixtures. The zero energy check was not conducted for the wires inside this conduit prior to the start of the cutting activity. CNS management is still gathering information related to the event.