

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 August 14, 2015

Building 9225-3 (Purification Facility): Last week, CNS held a fact finding meeting to document an event that occurred during operation of the facility's wet chemistry equipment and the vapor recovery system that contain acetonitrile (ACN). This vapor recovery system is the same equipment involved in the spill of ACN in December 2014 (see 12/19/14 report). On August 4, 2015, facility operators stopped a liquid transfer when they noted unexpected changes in tank levels and process system pressures. They informed their supervisor, who directed that all other ongoing operations be stopped. Earlier that morning, the supervisor had directed the transfer of the liquid between two tanks while the system was still processing material from the previous night. Because operators conducted these two operations using two separate and incompatible procedures, the system reacted unexpectedly. CNS management's corrective actions to prevent recurrence include a standing order from the Production Manager of Special Materials Operations that restricts the simultaneous performance of wet chemistry procedures in Building 9225-3 without permission from the Production Manager.

Highly Enriched Uranium Materials Facility (HEUMF): NPO sent a letter to CNS expressing concern that an HEUMF Technical Safety Requirement (TSR) Surveillance Requirement (SR) appears to be inadequate. Last year, NPO provided a comment during the review of the annual update to the Documented Safety Analysis that questioned the method in which smoke detectors were being tested in the SR. The testing method in the SR checks the ability of the detector to send a signal to the fire alarm control panel but does not test the operability of the smoke detection function. The TSR specifically calls out that the operability of smoke detection will be demonstrated in the SR. NPO again questioned CNS about this concern when it noted that the plans for this year's annual update did not address this comment. In response to an NPO-initiated discussion in June 2015, CNS entered the potential inadequacy of the safety analysis (PISA) process and determined that the current testing method in the SR meets requirements and does not constitute a PISA. In the letter sent this week, NPO expresses that CNS incorrectly exited the PISA process and that a PISA could still exist. Therefore, NPO has asked CNS to re-evaluate the PISA and report the results to NPO within three working days.

Last week, a CNS Nuclear Criticality Safety (NCS) engineer expressed concern about the configuration control of newly manufactured rackable can storage boxes (RCSBs). The concerns were identified during a review of a change package that was being presented to a CNS Operational Safety Board (OSB) for approval. The change package was initiated in October 2014, but CNS Engineering approved a waiver to allow continued fabrication of the new RCSBs prior to formal approval of the change package. Since October, the off-site manufacturers completed fabrication of many of the RCSBs and shipped them on-site, including shipments to HEUMF. The new RCSBs shipped to HEUMF were not approved for use because the change package that modified the design had not been officially approved, but these RCSBs did not have any hold tags or other markings to indicate that they should not be loaded. Fortunately, none of the new RCSBs have been loaded and CNS Engineering reviews of the fabrication records indicate that the new RCSBs have been built to meet the appropriate specifications.

Building 3019: An OREM team completed a two-week re-verification of Isotek's Integrated Safety Management Systems (ISMS). The team had two findings, including an issue with work control, but the team's overall conclusion was that Isotek has effectively sustained their ISMS program and demonstrates attributes of a continuous learning organization.