DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 23, 2018

TO: Steven Stokes, Technical Director
FROM: Jennifer Meszaros, Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending March 23, 2018

B. Weathers was at Y-12 to augment resident inspector activities. J. Meszaros completed her assignment as one of the Board's Oak Ridge Reservation resident inspectors.

Building 9206: Last week, the resident inspector observed a vital safety system (VSS) material condition and reliability assessment of the Criticality Accident Alarm System (CAAS) in Building 9206. The field walkdown component of the assessment was comprehensive and consistent with CNS Y-12 procedures. The system was generally found to be in good condition. Further, the system passed all technical safety requirement (TSR)-mandated surveillances in the three year period since its last assessment. However, the system engineers discovered some minor maintenance issues including damaged conduit, one broken speaker, and faded system labels. Some of these issues remain from the last VSS assessment, which occurred in March 2015, but have not been addressed because Building 9206 is a non-enduring facility.

Additionally, this week, the shift manager made an unplanned entry into the appropriate TSR limiting condition of operation after a CAAS component failed and caused a partial loss of annunciation in the facility. The maintenance issue that caused the failure was subsequently repaired and the system was returned to operable. The resident inspector discussed this maintenance issue with a system engineer and the extent to which it, other recent system component failures (see 2/17/17 report), or the maintenance issues identified during the recent VSS walkdown impact CAAS reliability. The system engineer concluded that the Building 9206 CAAS is capable of performing its required safety function, given the prompt identification and repair of recent component failures and the minor nature of issues identified during the VSS walkdown. The resident inspector agrees with this conclusion.

Building 9204-4: Facility personnel recently observed a bulging 55 gallon drum during a routine walkdown of a material storage area. Facility management immediately restricted personnel access to the area surrounding the drum and later determined, with the assistance of subject matter experts, that the drum did not represent an immediate danger. CNS subsequently vented the bulging drum and other drums containing similar wastes using a non-sparking puncture device. Last week, CNS held a fact finding meeting to further discuss this event. The drum is part of a population containing radiologically-contaminated oil and sludge. Subcontractors responsible for containerizing these materials packed them in drums with unvented lids in January 2018 because no vented lids were available at that time. A CNS waste engineer directed the subcontractors to temporarily use unvented lids until additional vented lids were ordered and arrived onsite. The vented lids arrived onsite in February, but were not applied to the drums. During the fact finding meeting, attendees questioned the formality associated with these waste packaging decisions. The site procedure governing waste management directs responsible organizations to convene a waste review team (WRT) in order to evaluate packaging decisions associated with certain waste streams. This team was not convened to evaluate the drums in question. Further, the decisions related to the choice of lids or the need to re-lid certain containers were not formally tracked. As such, fact finding meeting attendees committed to briefing the waste management organization on expectations regarding the formality of waste packaging decisions. They also committed to convening the WRT in order to review current drums stored in the facility and upcoming packaging decisions. Workers have begun installing vented lids on some of the impacted drums.