DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 6, 2017

TO: Steven Stokes, Technical Director
FROM: Jennifer Meszaros and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending February 3, 2017

Building 9204-2E: This week, the site representatives observed a fact-finding meeting to evaluate a recent event in which workers loaded an incorrect part in an oven in Building 9204-2E. The responsible supervisor recognized the issue while updating a part tracking database after the item had been in the oven for several hours. She immediately engaged the emergency stop button. The part in question did not present a nuclear safety concern; however, it could have damaged equipment or negatively affected the results of the operation. The management team identified several factors contributing to the error at the fact finding; most notably they highlighted inspections that occurred in a glovebox several weeks earlier. During these inspections, workers responded to an alarm indicating the glovebox environment was out-of-specification by expeditiously containerizing the part in question. The workers mistakenly containerized the part with another part that was designated for oven operations. Once this occurred, there were no measures in place to prevent the introduction of the incorrect part to the oven. Engineering and production personnel are evaluating possible measures to prevent recurrence of the event. Following a brief review of relevant procedures and checklists, the site representatives believe appropriate measures are in place to prevent similar types of errors from creating a nuclear safety concern, but plan to perform a more thorough review of the implementation of these measures next week.

Material-at-Risk (MAR) Reduction/Building 9204-2E: The site representatives recently observed demonstrations for a contractor readiness assessment (RA) of rackable can storage box (RCSB) loading operations in Building 9204-2E. RCSBs are containers specifically designed for Highly Enriched Uranium Materials Facility (HEUMF) storage racks. Currently, RCSB containerization is only authorized at HEUMF. Authorizing this operation in Building 9204-2E will eliminate an additional step to re-containerize materials for onsite shipment and improve the efficiency of ongoing MAR reduction initiatives. The site representatives identified no major issues during the RA demonstration; however, there was an opportunity for the job supervisor to elicit more task-specific responses to key questions during the pre-job briefing. The site representatives observed similar improvement opportunities during previous RAs. The RA team lead independently provided the same observation at the RA out-brief. The site representatives provided these observations to CNS Y-12 production management, who indicated that production staff members have already undertaken an initiative to improve the level of worker engagement and overall value of pre-job briefings.

Transuranic Waste Processing Center (TWPC): North Wind workers utilize the TWPC Hot Cell, a safety-significant passive design feature, to remotely unpack, sort, and repackage legacy remote-handled waste. In January 2017, North Wind personnel began an approximately month-long hot cell outage that focuses resources on preventive and corrective maintenance work. North Wind personnel enter a hot cell outage to perform needed maintenance work approximately every two years. The work scope associated with this outage includes preventive maintenance on cell hoists and remote manipulators; corrective maintenance on multiple Hot Cell cameras; and replacement of lighting, Lexan window covers, and the cask portal cover gasket. This week, the site representatives attended a pre-job briefing that covered a portion of this work, and observed the associated work execution. They provided some feedback to a conduct of operations mentor; for instance they suggested that the possible hazards discussed during the pre-job briefing could be better tailored to the day's work scope.