DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 21, 2016

TO: Steven Stokes, Technical Director
FROM: Jennifer Meszaros and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending November 18, 2016

D. Andersen, F. Bamdad, P. Foster, R. Jackson, A. Miller, S. Thangavelu, and M. Wright were in Oak Ridge for a review of the Uranium Processing Facility preliminary safety design report. R. Oberreuter was at Y-12 to augment site representative activities.

Fire Protection/Conduct of Operations: This week, CNS Y-12 management held a critique to evaluate an event in which a fire protection inspector (FPI) inadvertently activated a deluge fire suppression system during an NFPA inspection activity in Building 9201-3. The FPI intended to perform a quarterly inspection of the system, but entered the procedure at the incorrect section and began to perform an annual inspection while omitting several steps that would have put the system in the proper state of impairment. Building 9201-3 is a non-nuclear facility; however, the conduct of operations standards and processes used to plan and execute this work also apply to work on credited systems in nuclear facilities. In addition, other recent events during fire protection operations (FPO) activities on credited systems have revealed conduct of operations weaknesses in FPO (see 7/22/16 and 10/28/16 reports). For this event, FPO management identified several corrective actions geared towards evaluating FPO's methods for ensuring that work is performed in line with the intended scope. This can present a challenge for FPO since many of its procedures contain subsections and steps that may not always apply to the activity in question. In the meantime, FPO management plans to establish a supervisory watchbill using programs from other Y-12 organizations as a benchmark.

Work Planning and Control (WP&C): Last July, a Y-12 utilities worker fell and broke his leg while exiting a pit after conducting maintenance on a broken sump pump. CNS conducted an accident investigation of the event, and issued the investigation report in August. In addition to determining causes related to the fall event itself (e.g., the design of the pit ladder forced the worker to shift his center of gravity while exiting the pit, causing one of the worker's shoe covers to slip off a ladder rung), the investigation report also identified several WP&C weaknesses that were unrelated to the event. For example, the accident investigation team identified several issues with the execution of the lockout/tagout for the maintenance activity, as well as with the development and use of the confined space entry permit. The investigation also found that not all safety disciplines (e.g., industrial safety, radiological controls) participated in all elements of pre-work activities, such as the hazard identification walkdown and pre-job briefing. While the accident investigation team did not find these weaknesses to be causal factors in the fall event, the team determined they could be contributing factors to future events if not corrected. Last week, CNS transmitted to NPO the corrective action plan for the accident investigation report. Corrective actions included potential redesigns of the pit ladder, a review of the Y-12 maintenance supervisor training program, training for utilities supervisors on planning and executing work, and a review of site hazard analysis processes.

Conduct of Operations/Training: This week, the Y-12 production organization held conduct of operations refresher training for production supervisors. The trainers covered procedure suspension protocols, requirements for procedure working copy verifications, and requirements for executing reference use procedures. The site representatives observed the training and found it to be effective, presenting relevant topics while driving good discussion and engagement with the attendees.