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 December 5, 2014

Design Analysis and Calculations (DACs): In August, CNS discovered two errors associated with inputs in DACs that support nuclear safety controls in Building 9212 (see 8/22/14 and 8/29/14 reports). Last month, a team of CNS engineers completed a report documenting an extent of condition review of 28 DACs. These DACs contained approximately 600 inputs, and each input was specifically evaluated for similar errors to those found in August. The team found that several of the inputs should be revised to be more accurate. In addition, many of the inputs did not have adequate documentation of their basis or were not thoroughly referenced, but none of the newly identified issues were found to be a potential inadequacy in the safety analysis (PISA). The report recommends that all of the identified issues be addressed and that an improved method to evaluate the veracity of inputs be considered for inclusion in the site's engineering processes.

Nuclear Criticality Safety (NCS): On November 8, 2014, NCS engineers identified that a disassembly activity in Building 9204-2E was not being conducted consistent with the description in the criticality safety evaluation (CSE). One of the engineers was working on a revision to the CSE when he noted a potential discrepancy in the CSE. He was able to confirm with another NCS engineer that the process to disassemble a unit described in the CSE was different than what they had observed during field observations from recent operational reviews. The discrepancy was not the result of a procedure violation; rather it appears to have stemmed from a terminology issue. The Production Manager for disassembly operations suspended the activity and the Chief NCS Engineer reported the issue as a category 3C (4) Occurrence Report. The Operations Manager entered the PISA evaluation process but exited that process without declaring a PISA based on the determination that no new NCS controls would be put into the documented safety analysis (DSA). To correct the discrepancy, NCS engineers revised the CSE and implementing procedure to be consistent with the observed disassembly activity.

Emergency Management (EM): CNS EM personnel conducted a drill this week to train emergency response teams on the process for developing facility re-entry plans after a site-wide event. The drill was also designed to allow structural damage assessment teams to practice conducting facility assessments after a seismic event. The damage assessment team followed a field manual written by the Applied Technology Council that provides a process for post-earthquake safety evaluation of buildings. This drill was in preparation of a future site-wide exercise that will test the performance of these processes.

Transuranic (TRU) Waste Processing Center (TWPC): The TWPC contractor, Wastren Advantage, Inc. (WAI) is preparing a revision to the TWPC DSA that incorporates new site-specific dispersion analysis calculations (see 4/25/14 report). The completed analysis supporting the revision indicates significantly higher consequences from pool fire scenarios involving vehicle movements in the vicinity of waste containers; however, there have been several delays in completing the revision. Last month, OREM requested WAI provide a plan with interim actions to address the higher consequences that will be in the DSA upon completion of the revision. WAI responded with a letter that established interim operational restrictions and physical barriers that will reduce the likelihood of pool fire events. OREM requested several additional controls but believes WAI has taken positive steps in establishing interim measures to address the increased consequences that are in the forthcoming DSA revision.