

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 17, 2026

Oak Ridge Resident Inspectors Activity Report for Week Ending April 17, 2026

Emergency Management: A resident inspector (RI) observed CNS perform a full-scale emergency exercise that was designated as the site's annual exercise. The scenario involved simulated microbursts of high winds and rain that seriously damaged numerous facilities, including a nuclear facility, resulting in several injuries, radiation exposures, and a fatality. As part of the exercise, a forklift driver abandoned the vehicle, which led to an impact of the loaded drums containing fissile material, resulting in a nuclear criticality accident and activation of the facility's Criticality Accident Alarm System (CAAS). The operations center classified the event as a site area emergency. The scenario was notable for its complexity, requiring emergency response actions across multiple facilities simultaneously. CNS conducted a post-exercise hot wash and will produce an after-action report to identify corrective actions based on the feedback provided.

Special Nuclear Material Vehicle (SNMV): The accident analysis in the safety analysis report evaluates the consequences of potential accidents, including the collision of a loaded SNMV with a fuel truck. The SNMV's technical safety requirements include a specific administrative control (SAC) that restricts the size of a handheld refueling container to no more than five gallons but does not preclude the refueling truck's proximity to the SNMV while refueling activities are occurring. The refueling SAC ensures that the calculated probability of an accident involving a fuel truck, as determined in the accident scenario, remains valid. YFO brought this to the attention of CNS; specifically, that there were no limits on the proximity of the refueling truck to a loaded SNMV during the refueling activity. CNS evaluated the issue as a potential inadequacy in the safety analysis and subsequently declared a positive unreviewed safety question for the SAC. CNS is evaluating revisions to the SAC to prevent a fuel truck from being placed adjacent to the loaded SNMV.

Building 9215: An RI attended an event investigation on a failed lockout/tagout (LOTO) and subsequent machine coolant spill during inventory operations in the facility. The issuing authority (IA) changed the position of a valve listed in the LOTO from closed to open prior to operators performing the post-maintenance test on repaired equipment. Although the team was briefed on the change, the IA did not notify the shift manager, technical resource, and equipment owner as required by the LOTO procedure. The LOTO form incorporates a section for the temporary suspension of the LOTO to perform testing and is part of the initial approval process involving the IA, technical resource, and service supervisor. Unlike a pen-and-ink change to a technical procedure, the LOTO procedure was not clear on the approval of changes and whether they would require a review by all previous approvers. As a result of the change, machine coolant was pushed through the system and out of the overflow outlet on the equipment, leading to an approximate five-gallon spill on the floor. During the investigation, the responsible manager appropriately directed the team to identify clear gaps in the process with concise actions to return to work. These follow-up actions also included correcting the LOTO procedure to ensure that all personnel who initially approve a LOTO system alignment are required to re-approve any changes to that alignment prior to commencing work.