

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 3, 2026

Los Alamos National Laboratory Resident Inspectors Activity Report for Week Ending April 3, 2026

Weapons Engineering Tritium Facility (WETF)–Conduct of Operations: Last Friday, workers at the WETF reported a low-level tritium alarm and later determined that a small amount of tritium gas was released into a laboratory area, resulting in a release out of the stack. The real-time stack monitoring data indicated the release amount was well within the approved operating values and posed no hazards. Operations paused work and evacuated the facility out of an abundance of caution even though the tritium alarm reading was well below the required evacuation level. The release was the result of an unintended valve configuration during an infrequently performed gas transfer activity. The contractor held a fact-finding and discussed potential causes of the event including that the operations crew had not previously performed the activity, the procedure was unclear, and there were distractions from simultaneous work occurring in the facility. The contractor is developing actions to prevent recurrence. This is the second valve-positioning incident that has occurred recently at WETF (see 3/20/2026 report).

Plutonium Facility–Conduct of Maintenance: Over the last year, resident inspectors (RIs) evaluated the backlog of maintenance items identified during in-service inspections (ISIs) of the ventilation confinement system at the Plutonium Facility. The facility technical safety requirements (TSR) require these ISIs to be performed at a set frequency. Overall, the RIs found that the ISIs were being performed on the timeframe required; however, the RIs identified material conditions related to aging components and systems that often remained unresolved for many years. DOE does not have a requirement in place for resolving issues identified during TSR-required ISI surveillances within a specific timeframe, or for formally analyzing the aggregate impact of unresolved deficiencies. Plutonium Facility engineering personnel were aware of the issues and documented them in the system health report as required by the engineering program. However, the aggregate impact of a large number of minor deficiencies was not fully documented. Without a collective significance evaluation or timely resolution, deficiencies noted during ISIs are only evaluated as a single issue, thus potentially overlooking impacts to safety when taken as a whole. In the last few months, the Plutonium Facility has reduced the backlogged ISI issues from 61 at the end of 2024 to 11 at the end of 2025. RIs discussed these observations with the NNSA Field Office and site management.

Plutonium Facility–Legacy Items: During a recent campaign to disposition legacy items from the vault and place them in a safe and stable configuration, workers identified some of the items as overweight from the perspective of transfer cart loading and criticality safety limits. They consulted with criticality safety subject matter experts and decided to declare a potential process deviation. Legacy items can present challenges due to the availability and reliability of the data. No immediate safety or health concerns exist; however, the contractor placed abnormal-condition placards on the items and is developing a recovery plan that will allow workers to account for potential challenges from these particular items. The contractor is also considering further corrective actions, such as the viability of a specific procedure to document previously identified challenges for legacy items.