

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 2026

Hanford Site Resident Inspectors Activity Report for Week Ending April 10, 2026

Integrated Disposal Facility (IDF): Workers transferred the first vitrified waste canister produced at the Low Activity Waste facility to its disposal site at the IDF.

Soil and Groundwater: Workers at the Pump and Treat facility that removes chemical and radiological contaminants from groundwater at the Hanford Site encountered contaminated material while breaching a drained vessel without proper radiological controls. The pipefitters who had been performing the work and radiological control technicians (RCTs) prevented the small spill from contaminating workers. The RCTs subsequently called for a stop-work due to the unanalyzed hazards. A resident inspector observed the critique held to further address the event, which had strong participation from the workers involved and management support. During the critique, participants noted that the work package had been screened as having low radiological hazards. Between the development of the work package and its execution, a spill of spent ion-exchange resin occurred that may be the primary source of the radiological contamination, as this vessel is used to collect the contents of sumps in parts of the facility. In addition, the work was performed with radiological and industrial hygiene support, but no controls or radiological personal protective equipment were identified in case the workers encountered contamination. Critique participants also identified the need for a decontamination work package to address future contamination events.

242-A Evaporator: After a work activity in an airborne radioactivity area (ARA), workers recognized that an individual wearing an air-purifying respirator was using chemical cartridges instead of the prescribed particulate cartridges required for an ARA entry. Contractor personnel gave the worker nasal swabs and sent them for a whole-body count to verify there was no internal contamination. Further investigation by contractor personnel identified that the proper respiratory protection was briefed, and the worker was signed into the correct respiratory protection form (RPF). However, the mask station provided the individual with the wrong cartridges. While the mask station uses barcode scanning for respiratory protection items issued and the RPF and task are entered digitally, items are only scanned for inventory purposes and not checked against the corresponding RPF. Contractor personnel intend to add automatic checking to reduce human error in the future. A separate entry into the contractor's integrated contractor assurance system will address the failure to perform adequate verification and peer checking of respiratory protection prior to the start of work.

Reduction-Oxidation (REDOX): A resident inspector observed a Job Hazards Analysis meeting and walkdown for the work-area setup of confinement ventilation prefilters at the REDOX facility. The initial startup of the ventilation system caused the prefilters to accumulate enough contamination to require radiation-area controls around the ventilation skid. As a result, additional controls for the work are required to manage dose. The resident inspector notes that there was robust discussion about the balance between using engineered controls, such as shielding blankets, in the area setup and the estimated exposure to workers that would be required to install the shielding. As a result, reducing the amount of time setting up the area was agreed to be the preferred control.