

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 10, 2015

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending April 10, 2015

Board staff members R. Eul, R. Kazban, P. Meyer, P. Migliorini, A. Poloski, and S. Seprish were on site to discuss technical issues and review the contractor's processes for safety equipment receipt, storage, control, and protection for the Waste Treatment Plant during construction.

Tank Farms. A site rep attended a fact finding for a near miss event which occurred when a 900 pound vacuum breaker was being lifted onto tank T-111 (see Activity Report 3/6/2015). The vacuum breaker is awkwardly shaped and has no dedicated lift points or rigging to ensure proper balance. It was attached to a base plate when transported to the tank farm. When workers attempted to lift the vacuum breaker, the plate also lifted because one of the studs used to fasten the vacuum breaker to the plate became jammed in the vacuum breaker. The workers used mechanical agitation to free the plate while the plate and vacuum breaker were still suspended about one foot off the ground. The vacuum breaker rolled when the 2400 pound plate came free. It came to a rest when the top of the unit struck the ground. An individual located in the lift zone moved to avoid the vacuum breaker. Despite the unexpected event and near miss, work continued. The event was not reported until the next day when a worker located nearby, but not directly involved in the lift, raised concerns. In addition to apparent non-conservative work practices, poor reporting, and failure to stop work, the event fact finding also reinforced concerns related to effective communication between workers wearing supplied air.

222-S Laboratory. Last week workers discovered a spill of dried material in the duct level of 222-S Laboratory. The material was deposited beneath the low point of a ventilation duct. Preliminary results indicate that the material is mostly ammonium nitrate. It has been cleaned up and there was no evidence that a fixed contamination area in the spill area was compromised. The contractor is evaluating the source of this material and possible means to prevent recurrence.

242-A Evaporator. The contractor's Plant Review Committee approved a safety basis amendment that completes one of three planned improvements at the Evaporator. A new seismically qualified, non-process, safety-significant (SS) steam isolation valve was installed upstream of the existing SS, process, non-seismically qualified valve. Upon ORP approval and implementation of this safety basis amendment, the new valve will provide the SS steam isolation function and the administrative compensatory measures will be removed.

Waste Treatment Plant. The site rep and staff walked down areas where safety-related components are stored prior to installation. They found that the warehouses are well-organized. But, despite substantial effort, the contractor is experiencing challenges in meeting established requirements for some laydown areas used to store pipe spools. The team is evaluating the results of the walk down and will provide additional feedback when the evaluation is complete.

Plutonium Finishing Plant. A site rep observed a work team remove parts of the WT-1 glove box shell in the highly contaminated 242-Z control room. The work was well organized and controlled. Feedback to ensure work practices kept exposure as low as reasonably achievable was provided by workers, the work supervisor, and by senior managers who observed the work.