

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 17, 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 17, 2015

222-S Laboratory. The contractor determined that the potentially energetic ammonium nitrate discovered in a duct at the 222-S Laboratory did not constitute a Potential Inadequacy in the Safety Analysis (PISA) (see Activity Report 4/10/2015). They came to this conclusion based on the assumptions that the material did not have sufficient quantity, confinement, or shock ignition sources to create a new safety basis hazard for the Lab. The contractor is planning work in the near future that will include cutting into ducting. They placed an administrative hold on cutting exhaust ducts in the Lab until affected ducts have been verified to contain no combustible materials. The investigation into the source and extent of this material, its potential impacts, and the response to its discovery is continuing. The site reps believe that declaring a PISA following the discovery of this material and then performing a full Unreviewed Safety Question Determination regarding the event would have been a more conservative approach and would have strengthened the bases behind their assumptions that this did not represent a new hazard. This was discussed the contractor's senior management and ORP.

Plutonium Finishing Plant (PFP). A near miss occurred when a worker contacted an electrical junction box with his wrench while removing a section of deactivated piping in the Analytical Laboratory (A Labs) section of PFP. The pipefitter observed sparks and a flash. Work was stopped, the area isolated, and the worker was medically evaluated. There was no apparent injury resulting from the incident, but the worker's respirator hood had burn marks. The contractor conducted a critique. Based on findings from this event and another case where workers encountered an unexpected energized component in the A Labs caused by a material deficiency, the contractor intends to remove most sources of electrical power from the A Labs to support continued deactivation activities. The site rep notes that the workers were performing intrusive activities to remove a laboratory bench when this event occurred and that a more thorough screening and isolation of energized circuits associated with the bench and associated wall before conducting the removal activities could have prevented this incident. The site rep discussed this with the responsible manager and suggested a review of instructions for similar work activities in other parts of the facility to ensure that they provide adequate direction.

Sludge Treatment Project (STP). A site rep attended a Safety Design Integration Team meeting for the STP and a teleconference between the Board's staff and contractor and RL representatives regarding the adequacy of the STP PDSA. Based on the meetings, the site rep believes that there is little chance of reaching agreement between the staff and the STP federal and contractor project teams regarding the adequacy of some aspects of the PDSA unless higher organizational levels are engaged.

Reactors. The Mission Support Contractor is performing the five year surveillances for C, D, H, and N reactors, which are in Interim Safe Stabilization. A site rep accompanied a team into N Reactor following the initial safety walkdown. The team inspected temperature monitors and flooding detectors. Results were satisfactory. A site rep also walked down most areas of the D reactor building. He observed that, although there was evidence of rodent and bat activity in the facility, the facility is dry and adequately maintained for its status.