

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending September 12, 2014

Technical Procedures: This week, CNS held a critique to further explore the issues associated with a failure to resolve a nuclear criticality safety (NCS) engineer's input prior to approval of an on-the-spot (OTS) change to the procedure governing UF₄ blending operations in Building 9212 (see last week's report). The critique revealed the following additional issues:

- The work crew did not notify the shift manager, per Y-12 conduct of operations requirements, when the blending procedure could no longer be performed as written due to the glovebox door malfunction.
- Operators utilized the procedure containing the OTS change for at least one procedural evolution before it received final approval. Operators obtained a working copy of the procedure with three signatures approving the OTS change and incorrectly assumed that this constituted final approval (five additional signatures were required for final approval). Had formal procedure suspension protocols been used, shift manager approval would have been required prior to resuming operations and could have prevented operators from using an unapproved procedure.
- The responsible process engineer (PE) did not submit the OTS procedure revision for incorporation in the Y-12 document management system (DMS) until a full blend cycle comprising five additional procedural evolutions had been completed using the OTS revision. The Y-12 technical procedure process requires the PE to prepare and submit the OTS change for incorporation into the DMS upon completion of the first evolution. As a result, the Y-12 DMS did not list the OTS revision as the effective revision for approximately two months.
- The PE and the responsible line manager did not inform the NCS engineer that they were not going to incorporate one of his directed changes, thereby denying the NCS engineer the opportunity to object to the path forward.

CNS management is taking several actions in response to these issues, including evaluating OTS changes in other production areas, providing continuing training for production personnel on the OTS change process, and reviewing the Y-12 technical procedure process for improvements.

Transuranic (TRU) Waste Processing Center (TWPC): Last month, WAI completed an implementation verification review of the interim controls established in the Justification for Continued Operation that addressed a newly postulated detonation hazard for specific drums (see 5/23/14 report). This week, the site rep walked down the storage location for these drums with personnel from OREM and WAI and identified that 3 of the 12 interim controls had less than adequate implementation. One of the controls restricts vehicle movement when the storage container housing the drums is open for inspection, but no implementing procedure or written direction had been generated specifically for this control. Two other interim controls direct the use of specific safety equipment associated with the forklift truck used to move the drums; however, WAI does not own or control this credited safety equipment and has to borrow it from URS/CH2M Oak Ridge when needed. WAI revised its work suspension order to implement the control for vehicle movement and is pursuing procurement of the credited safety equipment.

Electro-refiner (ER) Project: This week, the Uranium Program Manager approved CD-0 for the ER project. The rough order of magnitude total project cost is estimated between \$21 million and \$84 million with a point estimate of \$42 million.