

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 28, 2009

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending August 28, 2009

Board staff members R. Arnold, J. MacSleyne, and R. Verhaagen observed the DOE Integrated Safety Management System (ISMS) combined Phase I and II verification at the Tank Farms.

Tank Farms: DOE completed their ISMS combined Phase I and II verification and concluded that the ISMS functions and principles were effectively described and implemented. At the exit brief the team lead identified a significant number of findings and observations, including: the contractor's self-assessment and oversight programs require improvement; workers deviated from work instructions but were not corrected by supervisors; the contractor Phase II readiness assessment did not adequately address work in the field; and Office of River Protection (ORP) has not performed nor scheduled an assessment of the contractor's implementation of the DOE operating experience program. The staff and team lead discussed a number of differences between the way the review was performed and the DOE guidance for performing an ISMS review. The team lead agreed with the staff that the DOE guidance for the ISMS reviews needs to be updated, and some actions in the guidance, such as having the entire team perform a pre-inspection visit, should have been performed for this review. The findings applicable to the contractor have been entered in their corrective action program.

The contractor upgraded the potential inadequacy in the safety analysis associated with relief valves and burst disks not complying with code requirements (see Activity Report 8/21/09) to an unreviewed safety question. The contractor is evaluating not crediting them as safety-significant (SS) but leaving the non-compliant equipment in the system and using a combination of testing, analysis, and new SS equipment to ensure the waste transfer pumps cannot exceed the system design pressure. ORP agreed with the site rep that a contractor proposal to use a Justification for Continued Operation (JCO) to permit operation of the equipment for the next few months was inconsistent with DOE directives. There is a contract milestone to complete the construction of the system to retrieve waste from single-shell tank C-104 by September 30, 2009.

ORP approved an extension of the JCO for commercial grade dedicated equipment (see Activity Report 1/16/09). The extension is from September 30, 2009 to January 31, 2010.

Waste Treatment Plant: ORP instructed the contractor to perform a study for the early turnover of Low Activity Waste (LAW), Laboratory (LAB), and the Balance of Facilities to the Tank Operations Contractor (TOC). For LAW and LAB, the study will evaluate steps required to accelerate construction completion, start-up testing, operational readiness reviews, and cold commissioning prior to turnover to the TOC.

Interim Storage Area: The site rep observed the contractor conducting a dry run for loading Experimental Breeder Reactor (EBR)-II casks into the Outside Storage Unit. The dry runs were well conducted and allowed the contractor to strengthen their procedure prior to conducting the actual activity. The site rep provided comments on the conduct of operation and procedure, including clarifications for the critical lift plan. The contractor will conduct a management self-assessment after the facility managers finish their readiness reviews, which are scheduled to be completed next month.