

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 15, 2008

TO: T. J. Dwyer, Technical Director
FROM: W. Linzau and R. Quirk, Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending August 15, 2008

Office of River Protection (ORP): ORP sponsored an assessment of the integration of their nuclear safety oversight organizations. The assessment was conducted, at least in part, to address concerns expressed by the site rep on the lack of detailed design reviews of safety systems by the ORP WTP Engineering Division (see Hanford Activity Report 3/7/08). The assessor was a recently retired ORP employee, L. Miller, who is familiar with the safety oversight programs. The assessment determined that ORP's Integrated Assessment Program has three significant weaknesses summarized as: (1) the WTP oversight staff does not have a process to actively review the implementation of the safety basis changes, and assurance of the safety basis implementation is undeveloped except for the verification of code compliance done by the acceptance inspectors in the field; (2) the program does not require periodic integrated assessments of contractor safety performance and is not focused on developing a coordinated picture of contractor nuclear safety and quality performance; and (3) the Integrated Assessment Schedule lacks integration across ORP divisions and the program could be improved by development of guidance to focus on verification of safety system design and installation.

Waste Treatment Plant (WTP): The contractor used spacing requirements for conduit embedded in concrete that were inconsistent with code requirements since 2002 until late last year. The codes of record, ACI 349 and 318, require that adjacent conduits be spaced apart by three diameters of the largest conduit, but the contractor used one and one-third (1 1/3) times nominal aggregate size, which was prescribed in the corporate design standard. The contractor revised the installation specification and their structural engineers are reviewing the as-built drawings of installed conduit to evaluate the adequacy of the non-compliant spacing as allowed by the ACI code. The site rep expressed concern to contractor management that the evaluations of the non-compliant conditions appeared ad hoc without a clear set of criteria based on meeting the intent of the code to determine structural adequacy of the non-compliant condition.

ORP completed a re-verification review of the Integrated Safety Management System (ISMS) at WTP (see Hanford Activity Report 8/8/08). The preliminary results presented at the exit briefing included: work control processes that do not ensure expert and timely consideration of hazards during work planning; the document used in the field to list hazards and controls is not always reviewed by construction supervision; work control in the field is good due to the competent, safety-conscious workforce as opposed to the work control process; and the lessons learned program is not effective in capturing lessons learned nor incorporating them into work planning.

Contract Transition: The Richland Operations Office (RL) safety and environment organization developed a Transition Safety Oversight Plan (TSOP) for the Plateau Remediation Contract. The purpose of the plan is to ensure that RL management are confident the new contractor is prepared to safely assume operations and will provide a guide for oversight from the end of transition to ISMS Phase II verification. The plan has lines of inquiry adapted from DOE O 425.1C to aid in evaluation of functional areas. This appears to be an effort to prevent recurrence of the poor safety performance observed during transition at the River Corridor Closure Project. This plan was created to supplement RL's overall transition plan.