

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 8, 2002

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending March 8, 2002

T Plant: Last week T-Plant declared readiness for increasing the facility hazard categorization and shipment of spent fuel. This followed completion of several hundred T-Plant and Fluor Hanford (FH) corrective actions developed in response to the termination of the DOE Operational Readiness Review (ORR) last year as well as DOE's identification of negative performance trends in corrective action management and contractor readiness verification. This week the contractor ORR team determined that T-Plant had not demonstrated readiness and terminated the review due to deficiencies in Conduct of Engineering and Conduct of Operations. Of most concern was a failure of engineering personnel and management to grasp the significance of a discovered condition (a significant calculational discrepancy for the fuel grapplers) and manage it in an appropriate manner. This resulted in the facility lifting a load greater than that used as a basis for the calculation for the limiting grapples component. Had a situation occurred similar to this with a real fuel element the facility would have been outside their Authorization Basis. The contractor ORR team also identified findings with operating procedures not reflecting the requirements of the Documented Safety Analysis and the Integrated Safety Management process not being applied to some procedures affected by the increase of facility hazard categorization. Considering the attention that was spent trying to address the DOE ORR findings, it was surprising that several of the latest findings mirrored earlier findings of the DOE team. It appears that one of the reasons the engineering problems were not identified during the latest contractor line management review was a decision to perform "reduced evaluations" of topics like engineering support that did not have any programmatic findings in the earlier readiness reviews. The above issues raise questions about the effectiveness of the FH corrective actions completed recently. The Site Reps raised this question with the FH Vice President in charge of ORRs and corrective actions. (III-A)

222-S: During a walkdown of Fluor Hanford's 222-S Analytical Laboratory, Mr. Sautman observed the excessive motion in parts of the exhaust system's ductwork that has caused numerous fatigue-related cracks. Since new cracks appear frequently, the ductwork panels are inspected every shift, patches are applied almost weekly, and bracing has been installed to minimize the vibration. Calculations indicate that the airflow of the existing exhaust stack is too small for the amount of airflow required by the current exhaust system. Unfortunately, funding to change the system's design has been repeatedly delayed and is currently not funded in FY03. New dampers, however, are being installed this year since inspections found severe deterioration of the existing ones. This ventilation system is not explicitly credited in the authorization basis, but it will be the subject of DOE-RL's next Phase 2 Assessment. (I-C)

Radiochemistry Processing Laboratory (RPL): Mr. Sautman requested a meeting with the Asst. Manager of Science & Technology because no facility representative (FR) surveillances had been transmitted to Pacific Northwest National Laboratory (PNNL) since October and Battelle's responsiveness to earlier FR findings was questionable. Prior to the meeting, DOE line and FR management developed an action plan for resuming transmittals of FR reports. PNNL is also developing a procedure for responding to FR reports. The Site Rep also explained why the RPL needs to be part of DOE's Rec. 2000-2 program and how this could be performed. (I-C)