

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 9, 2000

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending June 9, 2000

Tank Farm Caustic Spray Occurrence: Last Friday, several tank farm operators were sprayed with a dilute caustic solution (inhibited water) while trying to flush a jumper at a tank farm facility. All 4 operators received medical attention and were released. During the flush, an operator noticed a leak after a temporary flexible hose was pressurized with inhibited water. While investigating the leak, the hose connection came free, spraying 3 operators. A 4th operator was later exposed.

A review of the occurrence indicates that the operators were wearing appropriate personnel protective equipment (PPE) for the radiological hazard but not the chemical hazard. The procedure specified appropriate PPE. However, operators and supervisors believed this applied to personnel around an external tank and not to operators inside the facility where the flush was being performed. Several factors may have inappropriately influenced these decisions. First, inhibited water is used extensively in the tank farms and is typically not recognized as a significant hazard. Second, operators were overconfident in the flexible hose connection. Additionally, the Job Hazard Analysis (JHA) was weak and did not identify the chemical hazard. WSRC has developed a corrective action plan to identify and address issues for this occurrence and to ensure that hazards associated with inhibited water are appropriately identified and safety controls are established. (3.a)

Americium-Curium (AmCm) Stabilization: Last Thursday, EM-1 approved critical decision 3A for the pretreatment portion of the AmCm stabilization project. This allows WSRC to proceed with construction activities associated with solution pretreatment (e.g., jumper fabrication and installation). The vendor for detail design and construction of the vitrification system (Teledyne-Brown Engineering) has staffed-up and is expected to provide a detailed schedule next week. The DNFSB staff is planning an on-site review of the AmCm project during the last week of June. (3.a)

WSRC Award Fee: On Tuesday, DOE-SR informed WSRC that they had earned \$11.4M of the available \$14.4M contract award fee for the 1st half of FY00 (i.e., 79%). On a percentage basis, this is comparable to the last period's award (site rep weekly, 12/31/99). The primary areas of concern identified were (a) training and performance of radiological control inspectors; (b) failure of the 9975 shipping container design to meet drop test requirements; and (c) information security issues.

Accomplishments cited include (a) implementation of integrated safety management 9 months ahead of the DOE complex-wide schedule; (b) successful Y2K transition; (c) effective management of HLW tank space, in spite of 2H and 3H evaporator problems; and (d) development of a resource loaded strategy that supports the revised 94-1 implementation plan within a flat budget. Also cited was WSRC success in implementing the project management improvement plan (PMIP), based on progress made in tritium projects, K-Area Material Storage, and canyon ventilation upgrades project (e.g., a process vessel vent fan replacement 5 months ahead of schedule and \$1.5M under budget).

FB-Line: The DOE readiness assessment for the bagless transfer system is expect to begin June 12.