

# DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 16, 2000

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director

**FROM:** C. H. Keilers / R. T. Davis

**SUBJECT:** SRS Report for Week Ending June 16, 2000

Staff members Burns, Graham, and Zull were on site this week. Burns observed the emergency drill and reviewed tritium facilities. Zull reviewed high level waste activities and the L-Area Experimental Facility project (i.e., spent nuclear fuel melt and dilute). Graham received training and reviewed instrumentation and control.

**Tritium Drill:** This week, SRS held its annual evaluated emergency exercise, which involved two concurrent accidents. Problems from last month's drill were addressed (site rep weekly 5/19/00). One new problem was that the release from the second facility was never formally classified, although appropriate actions were taken. The likely cause was personnel not closely following their checklists. The exercises also revealed some needed improvements in on and off-site emergency response organizations in understanding and responding to unique aspects of a tritium accident.

**Tritium Consolidation and Modernization (TCON) Project:** WSRC has not yet submitted the safety analyses to DOE for approval – although the design is complete, 233-H modification is underway, and 70 percent of equipment contracts have been awarded. WSRC expects to submit the analyses within weeks. It appears that safety analyses have been close-coupled to the design and that the functional classification is adequate. However, higher priority should be assigned to completing the safety analyses approval process to ensure all issues are identified and addressed.

**FB-Line:** The DOE readiness assessment (RA) was completed this week for restart of the bagless transfer system. The facility had delayed declaring readiness for several weeks while conducting numerous cold runs. This level of preparation appears to have paid off, since few pre-start issues were identified. The system may restart early next week. Further improvements are being pursued.

**Tank 8 Waste Removal:** WSRC has now completed slurry pump runs at the 50" and 40" tank levels (initial sludge level was approximately 45"). As expected, little hydrogen was observed in the tank vapor space during these runs because of the limited amount of sludge disturbed. WSRC is lowering the pumps and plans further runs next week.

**HLW Evaporators:** Following the 3H evaporator high pressure occurrence (site rep weekly 6/2/00), WSRC evaluated the safety basis impact of other potential energy sources into the evaporator vessels. On June 9<sup>th</sup>, an Unreviewed Safety Question (USQ) was identified. WSRC has developed a Justification for Continued Operation (JCO) that identifies compensatory measures for the 2F and 3H evaporators. The compensatory measures rely on general service equipment and administrative controls to limit plant and instrument air sources to the evaporator vessels. Aggressive resolution and implementation of appropriate controls appears appropriate.

**9975 Shipping Containers:** Recovery from the marginal drop tests appears on track (site rep weekly 5/19/00). However, SRS has identified that the regulatory review process will impact obtaining certification by the end of September for plutonium oxide shipments. Early certification for metals is now being pursued.