

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 14, 2000

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
**FROM:** C. H. Keilers / R. T. Davis  
**SUBJECT:** SRS Report for Week Ending July 14, 2000

**Tritium Extraction Facility (TEF):** A Board and staff team was on site on Tuesday reviewing the TEF Remote Handling Building structural design. The team consisted of Eggenberger (Board member), Hadjian, Wille, Yeniscavish (staff), Hall, Rizzo, and Stevenson (outside experts).

**Recommendation 94-1:** On Monday, a site rep discussed the latest DOE revision to the 94-1 Implementation Plan with a Citizens Advisory Board (CAB) committee. The site reps expect to brief the CAB on July 25<sup>th</sup> on the DNFSB response to the plan.

**3H Evaporator:** On Thursday, WSRC exceeded the administrative control time limit that waste could remain in the evaporator when shutdown. As required, WSRC developed a response plan that identified compensatory controls to ensure hydrogen concentration does not approach the lower flammability limit (LFL). Based on the actual waste characteristics, WSRC conservatively estimates that it would take about 94 days to reach LFL. The originally issued response plan relied on verifying air flow to the evaporator and ensuring that the calculated hydrogen concentration is limited to 38% LFL (the hydrogen concentration is not directly measured). These controls were to be implemented when the calculated concentration was 25% LFL. A site rep discussed concerns with this plan with DOE and WSRC. WSRC now intends to revise the plan to implement the controls next week, instead of waiting until a 25% LFL condition potentially exists. WSRC will also now credit additional ventilation and ensure hydrogen concentration stays less than 25% LFL.

**K-Area Material Storage (KAMS):** The site reps continue to follow issues described in a Board letter (3/9/00) and DOE response (6/12/00). KAMS may receive Rocky Flats plutonium late this year, but has no capability to open, inspect, or perform surveillance on a storage container. SRS is relying for such activities on F-Area facilities that may be shutdown within a few years. New requirements appear to make it difficult to transport a suspect container from KAMS to F-Area. Contrary to a WSRC ORR finding last year, little has been done to resolve this issue and what has been done is conflicting. Furthermore, SRS will not have capability to repackage a container to STD-3013 for 6-8 years, or longer. While the chances of having a leaking package are remote (i.e., the plutonium is inside 4 nested containment vessels), it appears appropriate to have a working, demonstrated plan to address suspect containers – something more than the current requirement to “develop a response plan.” Furthermore, it seems worthwhile for DOE to ensure programmatically that a plutonium facility in F or H-Area will always be available and prepared to address a suspect container, for as long as there is plutonium stored in KAMS.

**MOX Public Meeting:** A site rep attended the 2<sup>nd</sup> of two NRC public meetings on the NRC licensing process for the SRS mixed oxide (MOX) fuel fabrication facility. Members of the public expressed opinions, at both extremes, on whether MOX should be pursued, whether the contractor (DCS) could safely operate, and whether NRC could adequately regulate MOX. One question asked but not answered was what was the NRC view on the DNFSB’s role in this process. DCS plans to submit a construction license application to NRC in December. NRC plans to subsequently issue a notice of intent to prepare an Environmental Impact Statement for the SRS MOX plant.