

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 6, 1999

MEMORANDUM FOR: G. W. Cunningham, Technical Director
J. Kent Fortenberry, Deputy Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending August 6, 1999

Safeguards and Security Stand-down - The site representatives participated, along with DOE-SR and its contractors, in the one-day safeguards and security stand-down this week. Several of the speakers observed the parallel nature and importance of security and safety, as well as the value of applying the core principles of integrated safety management to security (I.A.4).

Tritium Extraction Facility (TEF) - On August 2, Secretary Richardson approved critical decisions 2b and 3 for TEF. This releases the site to begin detailed design and construction site preparation. The latter is expected to start in October. Relatedly, SRS plans to address this month questions raised by the DNFSB staff involving the preliminary design. (I.A.3, II.B.1)

DWPF Process Cooling Water Leak - There are 4 transformers located in the melt cell that supply power to the melter dome heaters. Approximately 2 weeks ago, WSRC identified a small leak in the melt cell that appeared to be associated with a transformer cooling water system line. WSRC isolated the line and developed a path forward to visually inspect the system. During the last week, it appears that 2 of the remaining 3 transformer cooling water lines have also developed leaks. WSRC has stopped melter operations and is installing a camera to remotely inspect the south side of the melter. Equipment obstructions including a seal pot and jumpers are being removed to get a clear view of the melter. WSRC expects to complete the visual inspection early next week and will then develop a path forward to evaluate whether it is prudent to repair or replace the melter. (III.A.2)

K-Area Material Storage (KAMS) Project - On July 29, DOE-SR approved revisions to the K-Reactor Basis for Interim Operation and Technical Safety Requirements to allow storage of up to 15 MT of plutonium in the new Material Storage Area (see site rep report, 5/7/99). This is a key step in preparing the facility to receive Rocky Flats metal and oxides in January 2000. The material is required to be stabilized and packaged in accordance with DOE-STD-3013-96. Confinement is provided by the welded inner and outer STD-3013 containers, backed up by the 9975 shipping container inner and outer containment vessels (each with dual o-ring seals). The shipping containers, the new fire walls, and the building provide mechanical and fire protection. Container surveillance requirements are not part of the authorization basis and are still being developed. The next step is the WSRC Operational Readiness Review (ORR), scheduled for mid-October (III.A.1).

Recommendation 94-1 - Since May, shipment of sand, slag, and crucible (SS&C) residues from RFETS to SRS has stopped because of issues associated with the 9975 shipping container Safety Analysis Report for Packaging (see site rep reports 5/21/99, 6/25/99). SRS has been working aggressively with RFETS, LANL, and Sandia to address the most difficult issue, an extremely unlikely detonation scenario. WSRC appears to be on-track to resolve this issue and submit technical justification to the regulator (EM-76) within about 2 weeks. Depending on regulator acceptance, this would support restarting shipments in late September or October. (III.A.1)