

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 2, 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 July 2, 1999

Dry Sludge Unreviewed Safety Question - On June 25, 1999, WSRC transmitted an Unreviewed Safety Question (USQ) and Justification for Continued Operations (JCO) to DOE-SR concerning the risk associated with dry sludge storage in 3 waste tanks (site rep report, 6/11/99). WSRC concludes that the compensatory controls identified in the JCO are adequate to minimize risk until the USQ is resolved. Long term actions to resolve this issue will be formalized by mid-July and are expected to include evaluation of the following: equipment seismic qualification; better characterization and analysis of the dry sludge; and requirements and impact of rewetting the sludge. The accident consequence analysis is conservative, but given the uncertainties, the site representatives believe that it would be prudent to aggressively pursue resolution. (III.A.2)

Work Controls - WSRC informed DOE-SR today that the Consolidated Incinerator Facility (CIF) will enter a stand-down to address work control issues identified by the WSRC Facility Evaluation Board. DOE-SR also intends to increase Facility Representative presence in CIF. (I.A.4)

Pit Shipping and Disposition - A DOE Working Group has been established to identify the means of shipping excess pits from Pantex to SRS in the 2005-2013 time frame. DOE-AL has the lead. A Working Group member was at SRS this week to identify receiver-facility requirements and to find out if pits could be shipped to SRS earlier and stored in an interim facility (e.g., P-Reactor). Going into this meeting, it appears the Working Group perceived no major interface issues. WSRC informed the Working Group member that, to date, site-specific input has been limited into the MD-led design of the Pit Disassembly and Conversion Facility (PDCF) (site rep report 2/12/99). A kick-off meeting with the PDCF architect-engineer (Raytheon) is expected later this month. WSRC did provide the lessons learned from the 9975 container design effort, as well as the receipt inspection and interface requirements developed for the Actinide Packaging and Storage Facility. Two key points made were (a) the need to identify a single design authority (i.e., who's in charge?) and (b) the potential for numerous interface issues that depend on the selection of the receiver facility. A site representative discussed with the Working Group member pit safety issues identified by the Board and its staff (e.g., TECH-18). (I.A.3, III.A.1)

Tritium Facility Modernization and Consolidation (TCON) Project - The site representatives have been reviewing the design of the new reservoir life storage and material R&D building, 234-7H (site rep report 4/30/99). Construction site preparation is imminent. The building is designed to the Uniform Building Code. The design inventory is 1.5 kg tritium, mostly in robust reservoirs inside secondary containers. The safety basis depends on these containers; however, the container material was recently switched from stainless steel to aluminum, primarily for operational convenience. Also, bare reservoir operations are planned in one test chamber, which will have heater interlocks and spark-control features. The most demanding design basis accident involves an explosion in this chamber. The site representatives are pursuing questions on the spark-control dependence and the secondary container adequacy. (I.A.3)