

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 21, 1997

MEMORANDUM FOR: G. W. Cunningham, Technical Director

FROM: J. Kent Fortenberry / Joe Sanders

SUBJECT: SRS Activity Report for Week Ending February 21, 1997

Transfer of Tritiated Water From Tank 17 to Tank 6 - To support HLW Tank 17 closure, 279,000 gallons of tritiated water (~0.01 Ci/gal) will be transferred from Tank 17 to Tank 6. A temporary pumping system has been installed to accomplish this task. This system consists of two submersible pumps (a high and a low flow pump) and an above ground jacketed flexible hose. The flexible hose jacket will be pressurized with air and monitored to provide an indication of leakage from the inner transfer line. The transfer was scheduled to begin this week. However, detectable levels of neptunium and ~20% higher than expected Pu-239 concentration were found in recent sludge samples. The transfer has been delayed to evaluate the implications of these unexpected sample results on the calculated 10,000 year dose. The requirement imposed by SCDHEC is that the individual annual dose at the site boundary not exceed 4 mrem per year. This dose integrates the releases from all of the HLW tanks. The combined contribution from Tanks 20 and 17 is only 0.007 mrem per year. WSRC will receive a performance bonus if they are able to close HLW Tanks 20 and 17 by July 31, 1997.

Functional Classification of Equipment at H-Canyon - Classification of safety class (SC) and safety significant (SS) components at H-Canyon will require additional scrutiny. The current list of SC and SS components appears to be incomplete. As one example, the 11.3E (Evaporator) low-level/steam flow interlock is required operable by the current Technical Safety Requirements (TSR) to prevent criticality. The 11.3E level transmitter and the 11.3E low-level steam cutoff interlock pressure switch are listed as SS equipment. However, the air-operated steam flow control valve that provides the steam cutoff function and the associated solenoid valves are classified as General Services (GS) components, are not required operable by the TSR, and do not have associated surveillance requirements to ensure the valve will close or isolate steam flow. Discussions with H-Canyon personnel indicate that they have been recently reviewing the implementation of component classification and agree that the current SC and SS equipment classification may not adequately cover all components required to perform the safety function.

Board Members