

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 4, 1997

MEMORANDUM FOR: G. W. Cunningham, Technical Director

FROM: J. Kent Fortenberry / Joe Sanders

SUBJECT: SRS Activity Report for Week Ending April 4, 1997

The Board was onsite this week for discussions on restart of the H-Canyon and Recommendation 96-1 activities. Rich Tontodonato, Dominic Napolitano and Dave Drop were onsite reviewing Tank Farm authorization basis and ITP / Recommendation 96-1 activities. Mike Merritt and Davis Hurt were onsite supporting the Board visit. Randy Robinson was onsite attending meetings of the In-Tank Precipitation Chemistry Panel.

H-Canyon Safety Equipment - Additional safety class and safety significant equipment at H- Canyon (see SRS Weekly Reports for 2/21/97 and 3/14/97) will probably require changes to surveillance test procedures, and may require changes to the TSRs and/or the BIO. WSRC agrees that the classification of various isolation valves and feeder breakers should be changed. However, it will be later in April before completing their assessment of any other changes. Meanwhile, DOE-SR is assessing the proposed TSRs and surveillance requirements to determine if changes are needed to accommodate newly classified safety equipment.

Tritium Reservoir Life (Shelf) Storage Program - The life storage program monitors tritium reservoirs that are loaded 1 to 2 years before the design enters the stockpile and so demonstrates the reservoir integrity (material, design and fabrication) while in the stockpile. The primary reservoir degradation mechanism is tritium diffusion into the metal lattice followed by helium embrittlement. Life storage reservoirs are exposed to elevated temperatures which enhance tritium diffusion and accelerate aging effects. The reservoirs are stored in a secondary containment vessel with pressure monitoring to indicate any release. To evaluate aging effects, some of the life storage units are function tested and undergo materials examination. In addition, some units are burst tested to evaluate the ultimate integrity of the unit. The site reps observed a reservoir burst test this week.

Empty Reservoirs - A significant inventory of empty reservoirs are stored in enclosed hoods at 238H. Reservoir reclamation is also performed in this facility. The empty reservoirs are slowly being disposed of in the E-Area vaults. Prior to disposal, the reservoir stem is pinch-welded. Several years ago during the welding of a supposedly emptied reservoir, flaming was observed. Apparently the reservoir had not been empty. As a result, all presumed empty reservoirs in 238-H were "channel-indicated" (probe insertion through the stem to confirm the reservoir is empty). Furthermore, all empty reservoirs are channel-indicated prior to welding.

SRS Workforce Reduction - The FY1998 Workforce Restructuring program will result in up to 1500 additional layoffs. The layoffs will be achieved in several phases starting the end of April or early May.

Taiwan Research Reactor (TRR) Spent Nuclear Fuel - DOE issued the Record of Decision this week to stabilize the 62 canisters of "undamaged" TRR fuel (see SRS Weekly Report for 3/28/97). This activity will

be conducted in the F-Canyon and will take about 8 to 9 months. The TRR fuel dissolution is being done in the F-Canyon 6.1D dissolver. Sand, Slag and Crucible material will be dissolved in the F-Canyon 6.4D dissolver starting about June 1997. These two campaigns will occur concurrently, but simultaneous operation of both dissolvers is presently restricted.