

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 26, 1997

MEMORANDUM FOR: G. W. Cunningham, Technical Director
FROM: J. Kent Fortenberry / Joe Sanders
SUBJECT: SRS Report for Week Ending December 26, 1997

Application of S/RIDs to the Accelerator Project - The DOE contract for the design of the Accelerator Production of Tritium (APT) facility establishes the contractor's responsibility for the requirements of applicable DOE Orders. The contract states that DOE will provide a list of these applicable orders. However, DOE has not yet provided this list of orders. In addition, even though the APT facility, if built, would be located at SRS, the SRS Standards / Requirements Identification Documents (S/RIDs) are not currently being utilized to define requirements for the project. Finally, it does not appear that the DEAR clause relating to Integrated Safety Management has been substantially addressed by the APT project. WSRC has recently begun to address these aspects of the project. Discussions with both WSRC and DOE-SR indicate that this effort may be accelerated.

TRU Waste Drum Venting - TRU waste drums, awaiting transfer to WIPP, are being retrieved, vented, purged of hydrogen and volatile organics, and provided with filter vents (see 3/14/97 weekly report). It has recently been determined that some of the drums which had high levels of hydrogen (>15%) during the initial venting can re-establish a hydrogen concentration greater than 4% for some period of time after being vented/purged. It appears that a high concentration of hydrogen in inner bags of waste can diffuse across the bag into the drum headspace at a rate greater than the rate of diffusion across the filter vent. This results in a condition where the hydrogen can exceed 4% in the headspace of a vented drum. TRU waste drum venting has been suspended. WSRC/BNFL is currently developing a path forward.

Nuclear Waste Technical Review Board Meeting - The Panel on the Repository met at SRS on 12/17/97 to discuss three major material types: vitrified high level waste from DWPF, aluminum based highly enriched uranium spent fuel, and immobilized plutonium. The acting chair of the panel summarized four initial reactions to plans to send the aluminum based highly enriched uranium spent fuel to the repository: (1) criticality issues, (2) aluminum clad integrity, (3) the value of highly enriched uranium, and (4) the attractiveness to future generations of retrieving highly enriched uranium spent fuel.