DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 30, 1998

MEMORANDUM FOR: G. W. Cunningham, Technical Director
FROM: J. Kent Fortenberry / Joe Sanders
SUBJECT: SRS Report for Week Ending January 30, 1998

Nuclear Materials Integration (NMI) Project: The NMI team held its kickoff meeting at SRS this week. The purpose of this project sponsored by DOE-EM is to identify all legacy nuclear materials excess to the defense production mission, classify this material into meaningful categories, and establish a path forward for its disposition. The expectation is that this effort will support EM's 10-Year Plan for closing down RFETS and other sites and facilities. The expectation is also that this effort will provide a technical basis for revising the Recommendation 94-1 Implementation Plan promised by the end of CY98. The project team organizational structure is clearly defined with significant systems engineering representation from Lockheed Martin-INEEL. However, one concern is the limited involvement by DOE-DP and DOE-MD; DOE-DP will be declaring significant additional nuclear material as legacy and DOE-MD will be receiving a significant portion of this material over the next 25 years. Without meaningful representation, it will be hard to accommodate the changing material basis and define disposition end points.

RTF Distributed Control System (DCS) Upgrade: An outage will occur at RTF (currently known as Building 233-H) over the next few weeks to upgrade the DCS. The $5.5 million hardware upgrade will replace the existing coax token ring data highway with a new fiber optic ethernet data highway. It will also replace the existing Process Control Modules and operator consoles with more modern devices. Finally, the Control Room layout will be improved. The DCS handles 4,200 process I/O points (i.e, a valve open position indication would be a discrete point and a pressure measurement would be an analog point). Approximately 700 process points will be tested to verify system functionality. This hardware change should be generally transparent to the operators because the system software will not change. An upgraded version of the DCS software which is 'Year 2000 compliant' will be installed later this year.

TRU Waste Drum Venting - Initial sample results this month from ten previously purged and vented TRU waste drums showed no hydrogen concentrations greater than 2.3%. Selected drums having high initial hydrogen concentrations (up to about 30%) prior to being purged and vented are being re-sampled to verify whether or not high hydrogen concentrations are being re-established and maintained. Several drums sampled in December 1997 showed that purged and vented drums can re-establish a high hydrogen concentration as hydrogen diffuses out of inner drum packages (see 12/26/97 weekly report). These recent samples seem to indicate that even with hydrogen diffusing out of inner drum packages, the installed drum vent will eventually reduce the headspace hydrogen concentration to acceptable levels. Further testing is planned to determine the timing of this increase and decrease of hydrogen in vented drums.