

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2005

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending June 3, 2005

H Canyon: Large plywood boxes containing plutonium-contaminated equipment and trash will be removed from metal "black boxes," the equipment size reduced as necessary, and the contents repacked. The Site Reps walked down the work areas and discussed with the contractor the radiological controls that will be used during size reduction and how the riggers would handle potentially degraded boxes (e.g., due to rainwater intrusion during several years of pad storage). During a walk down of the control room, the Site Reps also identified unlabeled lights and switches that were being used.

Solid Waste: A Technical Safety Requirement (TSR) violation was declared after an assay identified a legacy transuranic waste drum containing 560 fissile gram equivalent (FGE) Pu-239 that was stored without spacing controls. The Criticality Safety program requires that drums with more than 485 FGE be spaced a minimum of 3 feet from other fissile materials. The drum's manifest indicated 0 FGE. This drum was supposed to have been reassayed as part of the corrective actions from a past TSR violation, but was missed. In addition, a May 2004 integrated passive active neutron assay of this drum was out-of-range. The drum was secured and barricaded to ensure 3-foot spacing until additional analysis is performed.

Salt Processing: As stipulated in Section 3116 of the 2005 National Defense Authorization Act, the Nuclear Regulatory Commission (NRC) serves in an independent consultative role to the Department of Energy (DOE) for the disposition of certain radioactive wastes originating from the reprocessing of spent nuclear fuel. Following a review of various salt processing documents, the NRC has submitted a request for additional information (RAI) to DOE. The RAI consists of approximately 70 detailed comments related to radionuclide removal technologies, waste characterization, performance assessment methodology, and compliance with requirements established in Section 3116. According to the current schedule, DOE responses to the RAI are expected no later than June 30, 2005.

Radiological Uptakes: As a result of the April 27, 2005, personnel contamination event at the Savannah River National Laboratory (SRNL), two employees incurred radiological uptakes (Site Rep. weekly 4/29/05). Following the analysis of a series of bioassay samples, the operator and responding supervisor were assigned committed effective dose equivalents of 172 and 23 mrem, respectively. SRNL personnel have determined inadequate packaging (i.e., poor sample bottle seal and multiple plastic bag failures) resulted in the loss of containment and subsequent spread of contamination.

Emergency Response: A position has been established for the Site Reps in the Emergency Operations Center and arrangements made for Site Rep access to the site during an emergency.