

August 4, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director

FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives

SUBJECT: SRS Report for Week Ending August 4, 2006

Tritium: About four years ago, the valve corresponding to a specific part number changed from one designed for tritium service to one that was not. As a result, 195 process safety valves installed in the Tritium Extraction Facility and ~90 valves that were used as replacement valves in H-Area New Manufacturing may have Teflon™ valve seats that can be degraded by tritium.

Because an operator chose the wrong target pressure for the reservoir type being loaded, the incorrect leak check pressurization range was calculated. This resulted in a rupture disk relieving to the relief tank when the loading line was pressurized.

F/H Laboratory: The contractor identified several analytical errors that would bias the reported results. One error involving a procedure noncompliance could have resulted in incorrect acid molarity additions in H-Canyon. In another case, a quality control sample was processed differently than the actual sample, which resulted in unaccounted for losses of greater than 40 percent for an analysis of plutonium. In this case, the analysis was used to ensure criticality parameters were within acceptable values for the evaporation of waste in the tank farms. Laboratory management recognizes the significance of these errors and has developed appropriate corrective actions.

Personnel Contaminations: While cutting a service process line in F-Area, liquid began to leak on the operator from another pipe, possibly because a valve on a nearby wet tap was bumped. The operator, wearing an acid suit and a respirator, ended up with 750,000 dpm β - γ on the suit and 20,000 dpm β - γ on his skin. The possibility of the liquid having a low pH made the event response, which was well executed, more complicated. The contractor is currently investigating how the liquid penetrated the acid suit.

Somehow, the lip of a wheelbarrow used for transporting ice (to support nearby breathing air work) in a H Tank Farms radiation buffer area became highly contaminated (1.9 million dpm β - γ fixed, 300,000 dpm β - γ removable). This contamination apparently was transferred to the palm and pants of one worker, the gloves of another, other parts of the wheelbarrow and its contents, and the nearby area. The contamination was identified when a worker was surveyed before getting a drink.

Rec. 2004-2: The pilot evaluation for the Actinide Removal Process concluded it was not worth spending \$65 to 80 million and delaying startup by two years to upgrade the ventilation system since there was no dose reduction to the public and minimal reduction to the collocated worker.

Solid Waste Management Facility: Facility management is taking a hard look at bag cut techniques, plastic quality, and use of portable ventilation because there have been three chronic air monitor alarms at the Modular Repackaging System in the last five weeks. Furthermore, an additional 38 drums were determined to be undervented because their curie content and the type of filter they had should have driven the installation of a second filter. The Department of Energy will review transuranic waste repackaging issues across the site.