

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 13, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending October 13, 2006

H Canyon: Based on activity levels encountered during a previous sampler line break, construction and radiological control personnel decided to use a leak collection container rather than a glovebag for future line breaks. However, no one bothered to revise the radiation work permit, work instructions, or activity hazards analysis – all of which repeatedly required the use of a glovebag. In addition, no one questioned this discrepancy when discussing these documents at the pre-job brief or during execution of the work. Furthermore, the foreman skipped the Radcon Action Step in the work instructions that required the Radiological Control Organization to sign off that a certified glovebag was in place prior to performing a line break. A time out was finally called when 300,000 dpm β - γ was detected when the cut pipe was probed. Luckily, there are no indications that this resulted in a release of airborne radioactivity and immediate actions were taken to bag the ends of the pipes. Contractor management is treating this as a serious conduct of operations event and has taken appropriate actions to deal with the human performance issues.

Solid Waste Management Facility: A Technical Safety Requirement violation was declared when an assay determined that a transuranic waste drum contained greater than 485 fissile grams equivalent of plutonium-239. Two containers were also found with significantly higher than expected radiation dose rates (one created a new high radiation area, the other was 3 rem/hr).

Liquid Waste: Testing of fluidized bed steam reforming (FBSR) using tank 48 simulant has been completed. The contractor reported that there are no technical or process issues at this time. Whether FBSR or wet air oxidation is chosen in November for treating tank 48 waste, the intent is to limit the waste inventory to less than Hazard Category 3 quantities to minimize the impacts to the existing facility and safety systems. This will also require justifying why this inventory can be segmented from the Actinide Recovery Process inventory that will be in the same building.

Assuming that an upcoming grout run indicates that flow oscillations have been resolved, the DOE Readiness Assessment (RA) for the Saltstone facility should start next week. Now that saltstone processing is likely going to resume, the contractor expects to issue a revised Disposition Processing Plan next February that will address the seven-month delay to previous assumptions. The revised Liquid Waste Life-Cycle System Plan is to be issued next April and will address the significant increase in sludge mass to be processed through the Defense Waste Processing Facility (DWPF). Recent test results have also indicated that sludge batch 4's hydrogen generation rate may exceed DWPF limits and require blending, slower processing, or other actions to resolve.

The Site Reps observed salt waste sampling activities on Tank 44. In general, adequate procedure compliance and conduct of operations were observed. However, a less than adequate air sampling methodology was identified and quickly corrected by a radiological control technician.

HB-Line: The 3013 Processing RA will be entering its sixth week since the authorization basis is still not approved. This delay illustrates the concern with certifying readiness with key items open.