

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 1, 2011

TO: T. J. Dwyer, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending July 1, 2011

Nuclear Materials: As promised at the Board public meeting, DOE directed SRNS to prepare a Resumption Plan for H-Canyon in support of possible future missions. DOE also directed SRNS to develop an Augmented Surveillance and Maintenance Plan that would support storage of used nuclear fuel for at least 50 years in L-Basin. Both plans are due by the end of 2011.

SRNS is starting to integrate their H-Canyon flushing, proficiency run, and resumption planning. The site rep encouraged them to design, implement, and document their cold runs and other activities used to maintain readiness so that they would support the readiness reviews that a future resumption would require.

Tank Farms: The Senior Safety Inputs Review Committee approved the reanalysis of seismic waste tank explosions. The analysis examines the potential to release trapped gas from salt cake and settled sludge as well as radiolytically generated hydrogen. Assuming the existing Waste Tank Quiescent Time Program is in place, SRR believes the offsite dose from 1) a bounding tank detonation and 2) deflagrations and detonations at multiple existing waste tanks would be 3 rem total effective dose. The site rep requested the technical basis for the methodology used to calculate the source term from deflagrations. SRR also dropped an attempt to correlate hydrogen explosions and mixer pump cleaning radii that the site rep challenged.

F-Area: Regarding last week's Technical Safety Requirement (TSR) violation, the Fire Department (FD) believes that that they were flushing a fire hydrant at the same time other members of the FD were trying to take a static pressure reading of the system. Proposed corrective actions would increase the specificity of test notifications, increase the technical detail in the test procedure and pre-job briefing, increase system and authorization knowledge of the involved parties, proceduralize Memorandum of Understanding requirements, and ensure that Safety Basis Implementation Plans better address affected systems and organizations. The site rep also questioned the work release process because the organization now claiming to have released the work (i.e., the FD) is not the owner of the system (i.e., Infrastructure Services).

Defense Waste Processing Facility: Mechanics discovered that the electrical relay they were going to work on was still energized. The developer and reviewers of the lock out (LO) missed one of the power supplies. The workers who established the LO only checked for voltage at the LO boundary points versus directly at the affected components, which is the preferred practice.

Diesel Generators: SRNS is reviewing the surveillance requirements for diesel generators to determine if they can be reduced without affecting system operability. The review team recommended moving some surveillances from the TSRs to the programmatic sections of the documented safety analysis. The site rep is concerned that this change will not provide for the periodicity and acceptance criteria now contained in the TSR and that the programmatic documents have yet to be changed to accommodate these revisions. The site rep is working with other members of the technical staff to arrive at the path forward.

F-Tank Farm: F-Tank farm personnel sent the failed crawler to the decontamination and repair (see June 24, 2011 report). The site rep walked down the decontamination and repair facility. The facility is limited in the decontamination operations they can perform because methods that are more aggressive will damage the camera and other electronics mounted on the crawler. SRR plans for work to start on the crawler July 11.