

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 20, 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 May 20, 2011

Facility Worker Controls: The site representatives met with SRNS to discuss how the contractor will functionally classify controls to protect facility workers (FW). In light of DOE and site representative feedback (see 4/22/11 report), SRNS is planning to revise their guidance in the Consolidated Hazard Analysis Process Manual to include three considerations. These assess whether a FW would reasonably be aware that an event occurred and whether he could take self-protective actions to preclude a significant consequence. If a FW would not be aware of an event, then the period of exposure would be based on how long a worker could be present (up to and including a full shift). While a qualitative consequence assessment is preferred, some cases may require a consequence assessment based on prior experience or a semi-quantitative analysis. These results would be compared to 100 rem TED or Protective Action Criteria 3. Because the proposed guidance is fairly subjective, the use of examples and training analysts on expectations will be critical to determining if this approach is implemented appropriately.

Tank 48/SRR Budget: In response to DOE's letter (see last week's report), SRR reviewed the Tank 48 Treatment Project's execution strategy and recommended that further advancement of the project be temporarily suspended pending the outcome of a review of technology alternatives. This recommendation reflects expected budget cuts as well as SRR's conclusion that there is no impact to waste processing or tank closure commitments if Tank 48 waste treatment occurs later. If DOE agrees with this decision, project suspension could happen as quickly as early June. This decision would affect six commitments in the Recommendation 2001-1 Implementation Plan.

Since SRR no longer believes that schedule is the main driver, SRR wants to evaluate two additional treatments besides fluidized bed steam reforming. The first is the direct vitrification of the bulk of Tank 48 contents followed by aggregation of the heel through Saltstone. The second is chemical destruction of the organic component of the waste in an existing small tank facility followed by disposition through available salt treatment facilities.

DOE and SRR are also discussing other potential project impacts based on expected FY12 funding. In particular, small column ion exchange, enhanced chemical cleaning, and enhanced low activity waste disposal could be delayed. This would impact the pace of tank closure and the reliability of saltstone grout production.

Tritium: The site rep performed a walkdown of H-Area New Manufacturing to review open glove box maintenance. During the review, a construction worker in the facility demonstrated a tool that he had invented for removing the windows of the glove box. The worker explained the use of the tool to the site rep and it appeared as if it would indeed work better than the current tool; however, discussions with the worker, his management, and facility personnel revealed a lack of knowledge on the new work planning and control process SRNS has developed and the need to ensure the linkage between hazards and controls.

Radiological Controls: Site wide procedures and radiological control practices frequently result in radiological controls personnel selecting suspension guides (limiting conditions), which are significantly beyond the guidance provided in DOE-STD-1098-2008, *Radiological Control*. One of the original intents of the limiting conditions was to ensure that changing conditions were assessed so that the appropriate controls would be implemented. For example, one might decide that while workers would be adequately protected with respiratory protection, the changing conditions would call for an engineered solution. In discussions with site personnel, there appears to be a different understanding of the purpose of the limiting conditions than was originally intended.