

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 26, 1999

MEMORANDUM FOR: G. W. Cunningham, Technical Director
J. Kent Fortenberry, Deputy Technical Director
FROM: C. H. Keilers / R. T. Davis
SUBJECT: SRS Report for Week Ending November 26, 1999

HLW Salt Processing Alternatives: This week, the National Research Council held a public meeting in Augusta, Georgia, to discuss salt processing alternatives in preparation for their final report expected in April 2000. Based on the committee's interim report issued in October, it appears that DOE will now provide additional FY 2000 funding to pursue research and development activities for the solvent extraction alternative in addition to small tank precipitation and CST ion exchange. DOE-SR noted that the request for proposals for the project, which was expected to be issued this week, will be delayed several weeks to ensure that the solvent extraction alternative is adequately addressed. (3.a)

New Tritium Facilities: The Tritium Extraction Facility (TEF) and Tritium Consolidation (TCON) projects are interrelated, and both may be impacted by a potential \$9.8M cut in FY 2000 funding for TCON. Relatedly, a staff team will be on-site next week observing the 70% design review for TCON modifications to 233-H (i.e., RTF). These modifications include isotopic separation technology similar to that already in 233-H, but at higher through-put. The total design inventory for 233-H is unchanged, but the inventory is shifted among the different rooms. This results in some postulated accidents (e.g., multiple room fires) having about 30% higher predicted off-site consequences. WSRC analyses indicate that these accidents are still within the evaluation guidelines. (2.a)

Concrete Spalling in Canyon Ventilation: Last week, a site representative reviewed the WSRC results of recent inspections in the F-Canyon sand filter and stack plenum. Degradation in the stack plenum is less than seen in H-Area (site rep weekly 11/5/99). In the sand filter, the concrete surface above the sand has been etched away by acid fumes, exposing the aggregate. The rebar is still covered, except at a few locations. Previous grout repairs have fared poorly. A few high-flow locations have also experienced sand erosion. While the safety functions of the sand filter and stack appear unaffected, close monitoring is warranted. WSRC left concrete coupons (cores) in the sand filter and plans inspections and repairs during a February 2000 outage. (3.a)

Integrated Safety Management: This week, DOE-EH released the results of their on-site assessment of ISM implementation (site rep weekly 7/30/99). Overall, the assessment concluded that SRS has an effective ISM program, but some improvements need to be made, especially in identifying and analyzing hazards. Particular weaknesses noted were in industrial hygiene involvement, radiological engineering support (e.g., ALARA reviews), and lack of integration of hazard analysis elements (e.g., work clearance permits and job hazard analyses). SRS is preparing a corrective action plan. (1.c)