

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 18, 2003

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
J. J. McConnell, Deputy Technical Director

**FROM:** R. T. Davis/ T. D. Burns

**SUBJECT:** SRS Report for Week Ending April 18, 2003

**H-Canyon Red Oil Controls:** Last week, WSRC declared an Unreviewed Safety Question (USQ) because of less than adequate controls for the H-Canyon red-oil runaway reaction. The USQ was issued based on the fact that operators did not have the 30 minutes to manually isolate steam to canyon evaporators prior to reaching the runaway initiation temperature (130 °C). WSRC has developed a Justification for Continued Operations (JCO) that includes compensatory measures for this accident scenario. The JCO includes controls to limit the amount of higher concentration tributylphosphate (TBP) in H-Canyon. The JCO also requires that all solutions that have been in contact with organic solvent be processed through decanters prior to introduction into a canyon evaporator. The DOE Safety Evaluation Report that approves the JCO was issued on Monday.

**F-Canyon:** WSRC continues solvent washing and vessel flushing activities in F-Canyon. Solvent is transferred to the F-Canyon outside facilities area after it is washed. This activity will allow WSRC to continue vessel flushing activities. The americium-curium (AmCm) heel that remains in the canyon will be neutralized and transferred to high level waste (site rep weekly 4/4/03). The AmCm transfer is expected to begin next week.

**FB-Line:** Last week, WSRC completed packaging all of the Rocky Flats Environmental Technology Site (RFETS) metal into inner 3013 containers. This activity was completed months ahead of schedule. Outer can welding and digital radiography were not performed last week to focus on completing the RFETS metal packaging. However, outer 3013 packaging resumed this week. WSRC has completed the 3013 packaging of eight cans of plutonium metal. Furnace construction activities to support plutonium oxide stabilization continue.

**H-Canyon:** WSRC continues to process Mark 16/22 spent nuclear fuel at H-Canyon. Highly Enriched Uranium (HEU) that has been processed to meet the Tennessee Valley Authority (TVA) specification is transferred to outside facilities tank E4-2. However, E4-2 is nearly full and blend down operations need to proceed to provide additional HEU storage space. Blending activities have been on hold because the TVA vendor is not ready to receive material.

Next week, H-Canyon will enter a five week maintenance outage. This will help delay the need for additional HEU storage space. Based on a DOE-SR visit to the TVA vendor last week, it appears they will be ready to receive material by late-May. WSRC plans to perform additional blending that will provide additional space in E4-2 in early May.