

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 5, 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 March 5, 1999

Mr. Davis reported to the site for duty on March 3, 1999.

Tank Annulus Deflagration - The current Safety Analysis Report (SAR) addendum for the In-Tank Processing (ITP) and Extended Sludge Processing (ESP) facilities does not identify controls to prevent a tank annulus deflagration for several waste tanks (i.e., SAR controls for this accident are only identified for tanks 48 and 49). This deficiency was identified by DOE-SR and WSRC during the latest SAR addendum revision. However, WSRC does not currently plan to include this accident and associated controls in the current revision, which is scheduled to be resubmitted to DOE within the next two weeks. Instead, WSRC will provide a path forward and schedule for resolving this issue as part of the SAR addendum submittal. WSRC has not completed an Unreviewed Safety Question (USQ) evaluation for this issue. The site rep asked whether a USQ evaluation would be appropriate to identify interim controls until the SAR addendum is revised to include the tank annulus deflagration for all ITP and ESP tanks. DOE-SR noted that controls to prevent this accident are currently in place but are not identified or analyzed for the tank annulus deflagration in the SAR addendum.

Americium/Curium Stabilization - In an effort to reduce near-term spending, EM-1 has requested DOE-SR to revisit the option of diluting the F-Canyon tank 17.1 americium/curium solution and transferring it to the F-Tank farm. Previous stabilization alternative studies emphasized the programmatic need for this material. EM is currently preparing a memorandum to other offices within the department (with copies to the laboratories) requesting them to identify programmatic need for both the Mark 18, which could also be used as feed material for heavy element production, and tank 17.1 material. In addition, the memorandum will note that funding will be required to process this material into a recoverable form suitable for shipment and storage. DOE-SR will not begin a detailed study of the issues associated with transferring the tank 17.1 material to the tank farms until responses to this memorandum are received (approximately one month). In the interim, WSRC will continue detail design of the americium/curium vitrification project.