

REQUEST FOR ADDITIONAL INFORMATION
Volume 2 – Preclosure
Chapter 2.1.1.4, Set 6 – Identification of Event Sequences
(RAI #1 - #2)

The following RAIs pertain to DOE's evaluation of fire-related event sequences as described in SAR Sections 1.7.2.3.3 and 1.7.5 of the SAR. This information is needed to assess whether or not DOE has demonstrated compliance with 10 CFR 63.112(b) and §63.111(a) and (b).

RAI #1

For fire related event sequences, explain how the ratio of various waste form configurations to the overall number of a particular waste form were derived for the surface facilities (e.g., TAD in an Aging Overpack vs. Overall Number of TADs in Canister Receipt and Closure Facility).

These ratios are used as basic event probabilities in event sequences. For example, the total number of TADs and individual TAD configurations in ESD20-SHIELD-TAD-TCAO1 are outlined in SAR Table 1.7-5; however, it is not clear how the ratios were derived for the event sequences.

RAI #2

Provide technical basis for considering a single type of waste form individually, instead of multiple types of waste forms that are likely to be present in a facility at one time, to categorize large fire event sequences in SAR Section 1.7-4 (Page 1.7-41).

Many event sequences shown in the summary tables under SAR Chapter 1.7 (e.g., Tables 1.7-7, 1.7-9, 1.7-13, etc.) indicate that the "material at risk" given a particular fire-induced event sequence is "one transportation cask with..." Since this probability also includes the probability of exposure due to a large fire, explain how the potential presence of multiple canisters in a facility at the time of a large fire could affect the failure probability and subsequent dose calculations. This potential for multiple failures is also present in staging areas or other areas where a higher density of containers/waste forms may be present.