

REQUEST FOR ADDITIONAL INFORMATION
Volume 2 – Preclosure
Chapter 2.1.1.7
Design of Structures, Systems, and Components
Important to Safety and Safety Controls
1st Set (RAI #1)

RAI # 1

Provide the following documents (or partial documents as specified) referenced in the Technical Support Document (TSD) and associated Background, Evaluation, and Analysis Reports (BEARs) submitted with the Yucca Mountain Repository Safety Analysis Report:

NNPP, “Naval SNF Packaging Components and Methods (U), Rev. 0, BEAR 21, NNPP-SNF-YMSA-21, pages 21-5 through 21-9

“Calculation of Naval Long and Short Waste Package Three-Dimensional Thermal Interface Temperatures”, 000-00C-WISO-02700-000 Rev00A, 10/26/06
(Note: document is publicly available, LSN Number: DN2002328070)

“Structural, Thermal, and Criticality Safety Assumptions for Handling Naval Spent Nuclear Fuel in the IHF”, Enclosure 1 to U#07-00413, 3/12/07
(Note: document is publicly available, LSN Number: DN2002380126)

“Determination of the Time and Temperature for a Design Basis Fire Involving a Bare Naval Canister in the IHF”, Enclosure 7 to DOE (Dyer) to NNPP (McKenzie) letter OCS:CMN-1199, 6/25/07
(Note: document is publicly available, LSN Number: DN2002450632)

“ECF Fuel Handling Drop Analyses; For NR Approval (U)”, WAPD-SEA(RE)MD-702, 12/11/98

“Functional Requirements Document for the Naval Spent Fuel Canister (SFC) System (U)”, including Attachment A, Rev. 9, 2/08
(Note: NRC only needs redacted version, LSN Number: DEN001593767)

TWR 75126, pages 97 through 112, 02/20/08

“Transmittal of Rev. S5G-1 of the Naval Spent Fuel Canister (SFC) System Storage Safety Analysis Report (SAR) for Bettis-Cognizant Cargoes, for Approval (U)”, Attachment 5 (31 pages)

“Validation of Generic Drop Analyses (SAM-1) for Alloy Fuel Components and Recommended Changes to SAM-1, Appendix E, for Approval”, B-MER(SS/RE)MD-1438, 7/11/07

Bettis, “Yucca Mountain Repository – Preclosure Criticality Model”, B-MER(RE)NE-293, 5/13/08

“ZIRMOD Thermal Creep Model, for Naval Reactors Approval (U)”, B-MT(FPM)-30, 7/24/07

“S3G Spent Fuel Canister (SFC) Basket and Spacer Designs for Approval”, B-REO(GRD)-1131, page 3 through page 366 and Attachment I, 2/28/06

“A1G Spent Fuel Canister (SFC) Basket Design Submittal, for Approval”, B-REO(GRD)-1123, pages 3 through 401, 1/20/06

“Technical Justification for Gamma and Neutron Fluxes on the Surface of the Naval Spent Fuel Canister (U)”, Attachment B, Feb 2007 and “D2W Processed Spent Fuel Cell Design Sources to Support M-290 Shipping Container Radiation Level Calculations (U-NNPI)”, Enclosure 1 to Attachment B, Sept 2006

(Note: this was the 32nd document reviewed by NRC staff)

DOE has used these documents as references to support the Naval Nuclear Propulsion Program (NNPP) content of the Yucca Mountain Repository Safety Analysis Report. These references are applicable to multiple SAR sections and will be needed to complete the Staff's review of multiple SER Volumes (including Preclosure Volume 2 and Postclosure Volume 3). These references are needed to verify compliance with 10 CFR 63.112 and 10 CFR 63.114.