

## Comments

1. ITAACs (FSAR Tier 1 Sections 2.4.20, 2.4.21, and 2.4.22) for category I underground tunnels, category II Access tunnel, and the Radwaste tunnel indicate that these buried category I & II structures are designed and constructed to accommodate the dynamic, static, and thermal load conditions associated with various loads and load combinations identified in the FSAR Tier 2 Section 3.7.3.13. Note that DCD Tier 2 Section 3.7.3 13 seventh bullet appears to describe the various loads that are considered for the design. However, it does not include any potential environmental loads such as tornadoes, missiles, external floods, etc. The applicant is requested to explain how these loads, as applicable, to the underground Category I and II structures will be considered in the design.
2. Section 9.1.2.4 of DCD indicates that the spent fuel pool and buffer pool are reinforced concrete structures with a stainless steel liner. The storage racks and pool liners are designed to meet Seismic Category I requirements. Pool liner and anchorage are designed to the same loads and load combinations as the pool concrete structure in accordance with Table 3.8-15, except that load factors for all cases are equal to 1.0, and the acceptance criteria follow ASME Section III, Division 2, CC-3700. However, the FSAR markup (Section 3.8 or 9.0) does not include a site-specific assessment of the fuel/buffer pool liners and the associated anchorages due to site-specific seismic demand including the local effect of the reactions of the storage racks on the pool liners. The applicant is requested to address this issue.
3. Report 002N8467 indicates that NA3 bounding response spectra (RS) at Node 2 (of SER-DMN-019, Rev 0) was used as input for site-specific assessment of the SFP rack in the FB. The staff needs confirmation and additional information with regard to the following items:
  - Confirm that RS at Node 2 conservatively represents the spectra at the base of the SFP in the FB not at the center of RB/FB base mat (i.e., it includes the effect of basemat rocking and torsional effect).
  - Confirm that input RS is an envelope that considers the effect of stiffness variation and SSSI effect.
  - Confirm that the synthesized time histories used for transient analyses envelop the RS and they are statistically independent as recommended in SRP 3.7.1.
  - Confirm that friction factor used for FSR in the FB for the non-linear analysis is consistent with the DCD values.
  - The report indicates that Table 1 summarizes forces for the FSR obtained from the SSE time history analysis. Please provide a comparison of the forces provided in Table 1 of SER-DMN-019, Rev 0 based on the site-specific response spectrum approach and time history approach and explain any significant differences.
  - Clarify whether the stress summary comparison provided in Tables 2 and 3 is based on the RS or time history approach?
4. Report 002N8467 indicates that both RSA and transient dynamic analyses (using synthetic time histories) were used for site-specific assessment of the FSRs. Concerning these RSA and transient analyses, the applicant is requested to provide a presentation discussing the two methods of dynamic analyses and how the results of these analyses are used in the site-specific assessment of the FSRs. Are the site-specific methods the same as the DCD approach?
5. Report 002N8467 in Page 20 indicates that the time histories for evaluation of deep pit

FSR were generated from the response spectra for the new FSR in the buffer pool. The report also stated that this is conservative because the new FSR are located above the buffer pool. As such, the staff requests that the applicant provide a figure which presents comparisons of response spectra at these two locations to ensure that the spectra at the location of the new FSR envelopes the spectra at the deep pit location.

