

Acceptance Review of TN / MP-197HB Package – Structural Discipline –

➤ **Request for Supplemental Information (RSI):**

RSI-1): Provide pertinent and adequate justification, (including the applicability of the results of the FIP Program) for use of a fracture mechanics approach to demonstrate the adequacy of high burn-up spent fuel cladding during transportation.

TN has been made aware of staff's position in the past, on previous TN applications (TN-68, Standardized NUHOMS Amend # 10) regarding use of fracture mechanics approach to establish adequacy of high burn-up spent fuel cladding. The arguments presented in Addendum 10 f, g, and h based on French Test (FIP Program) data, does not provide a justifiable basis and is relying on fuel for burn-up to only approximately 50 GWd/MTU. The linear interpolation from 50 to 65 GWd/MTU is unsubstantiated, and not acceptable.

This information is required by the staff to verify the compliance with 10 CFR 71.71 and 10 CFR Part 71.73 regulations.

➤ **Observations:**

1) Completeness of Scope: The applicant should consider providing a table listing nine different DSCs that go into the Package MP-197 HB, with information such as major physical dimensions, contents, heat loads, low-high burn up, etc,. This may provide for more efficient review by the staff.

2) Missing Information: The applicant has not identified deviations from staff's guidance documents. The applicant should provide explanations why the latest revisions of computer codes ANSYS and LS-DYNA (for performing structural analysis of regulatory drop scenarios) were not used, as discussed in ISG-21. Also provide discussions of implications, if any, of not using the latest revisions of these computer codes on the analyses results.

➤ **Acceptance Review Results:**

The package may be acceptable – if the applicant provides information as described above in a timely manner to the staff, prior to any detailed review can begin.