SAFETY EVALUATION REPORT

Docket No. 71-9255
Model No. NUHOMS®-MP187 Transportation Package
Certificate of Compliance No. 9255
Revision No. 8

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By letter dated July 23, 2002, Transnuclear, Inc. (TN), submitted a request to the NRC requesting an Amendment to the NUHOMS®-MP187 transportation cask, Certificate of Compliance No. 9255, for a one-time approval for a proposed alternative to ASME Boiler and Pressure Vessel Code, Paragraph NB-4121.3, for the Failed Fuel Dry Shielded Canister (FF-DSC) Serial No. FF-13P-R21. The proposed alternative substitutes a flaw tolerance analysis for a Code required dye penetrant examination (PT). The PT examination is required by the Code during fabrication for a machined portion of the cask bottom forging.

A similar request was submitted by the Sacremento Municipal Utility District (SMUD), dated May 8, 2002, for revision to the 10 CFR Part 72 storage license for the Rancho Seco Independent Spent Fuel Storage Installation (ISFSI). Given that both the storage and transportation casks use the same canisters, the use of the alternative to the ASME Code for FF-DSC Serial No. FF-13P-R21 for the storage configuration is identical to the alternative proposed in this request under 10 CFR Part 71. The NRC's evaluation for storage found the proposal acceptable under 10 CFR Part 72 regulations, as documented by a letter to the SMUD, dated July 17, 2002.

By way of re-submittal of the ASME Code alternative, TN proposes to extend this specific ASME Code relief to cover the eventual transportation of the storage cask within a transportation cask.

The NUHOMS®-MP187 Packaging was developed by Transuclear West Inc. (now TN), to provide a means of transporting Dry Shielded Canisters (DSCs) with fuel off-site directly from the spent fuel pool, from storage in NUHOMS® storage modules, or from the metal cask storage mode. The NUHOMS®-MP187 Packaging is composed of the Cask, one of four types of DSCs, and the impact limiters. The Cask portion of the packaging functions as a transfer cask for moving DSCs with fuel from the pool to NUHOMS® storage modules and for retrieving DSCs from the modules.

The purpose of the Cask is to provide containment and shielding of the radioactive materials contained within the DSC during shipment. The FF-DSC is designed to hold 13 PWR damaged fuel assemblies (without control components), each contained within a Failed Fuel Can.

During transportation, the FF-DSC is loaded into an NUHOMS®-MP187 Transportation Cask. As stated in the NUHOMS®-MP187 SAR Section 2.6.12 (page 2.6-116), during transportation, the NUHOMS®-MP187 Cask comprises the structural and containment boundary. No credit is taken for the containment capabilities of the FF-DSC shell for normal and hypothetical accident conditions of transportation.

The staff finds that since the FF-DSC is conservatively assumed to have no structural or containment function, it is thus considered to be a payload of the NUHOMS®-MP187 Cask and no additional analysis or consideration of the structural capabilities of the FF-DSC is required

for transportation use. Thus, the staff finds the proposed alternative to the Code acceptable.

The staff concludes that the requested change will not affect the ability of the package to meet the requirements of 10 CFR Part 71. Pursuant to 10 CFR Part 71, Certificate of Compliance No. 9255 for the NUHOMS®-MP187 transportation package is revised.

Issued with Certificate of Compliance No. 9255, Revision No. 8,
on October 18, 2002.

References

Transnuclear West Inc., application dated July 23, 2002.

Transnuclear, Inc., supplement to amendment request number 7, dated June 23, 2002.

NRC letter to SMUD for Acceptance of ASME Code Exception for the Rancho Seco ISFSI, dated July 17, 2002.