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From: David T. Tang <dt@nrc.gov>
To: <nrcprep@nrc.gov>
Date: Mon, Mar 10, 2003 3:08 PM
Subject: Response from "Comment on NRC Documents"

Below is the result of your feedback form. It was submitted by
 David T. Tang (dt@nrc.gov) on Monday, March 10, 2003 at 15:09:31

Document Title: NUREG-1768, "United States Nuclear Regulatory Commission package Performance Study Test Protocols"

Comments: Page xiii, on issue of "How many and what types of fuel assemblies should be in the cask during the test?" this commentor cautions the use of any real or surrogate fuel assemblies within a cask for the PPS due to the following performance characteristics of railroad transportation casks.

1. The C. G. Over the corner test orientation is meant primarily to examine the containment boundary integrity for presumably the most vulnerable feature, the closure region of the cask. However, the loading condition on fuel assemblies for this test orientation is usually not as severe as those associated with an end-drop or a side-drop 30-ft drop accident.
2. The fuel assembly end drop response is "directionally biased" toward the "bottom" end drop which challenges the fuel assembly the most. Essentially, because of the external spring at the top of a BWR rod or the lack of direct contact with the upper end fitting for a PWR rod, fuel rods are not expected to be challenged by the buckling failure mode during the proposed top C.G. over corner drop.
3. Since the fuel rods are not going to be challenged in the proposed C.G. over corner drop, use of a real or surrogate fuel assembly tends not to be meaningful. On this note, the test protocols should focus on developing instrumentation program to help characterize the loading environments applicable to the fuel assembly component testing or analysis.

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