

From: Ron Parkhill
To: Earl Easton, M. Wayne Hodges, Ross Chappell
Date: Wed, Jan 19, 2000 11:20 AM
Subject: ISG-1 Damaged Fuel

At yesterday's meeting with NAC , with an NEI representative in attendance, a discussion was held regarding revising ISG-1 to broaden the definition of spent fuel that does not have to be canned, to include "cladding damage larger than pinhole leaks or hairline cracks, but small enough to contain fuel fragments and pellets".

Concurrent with evaluation of this issue, should also be a quantitative justification, supplied by the applicant or industry, that the fuel is structurally sound under all applicable storage and transportation design conditions to prevent reconfiguration of the fuel geometry from both a criticality and thermal perspective. It would also appear that this proposed change in cladding integrity would need to be evaluated for its impact on ISG-12 which addresses buckling of irradiated spent fuel.

Adoption of the proposed change to the ISG-1 without specific justification that the spent fuel can withstand its design loadings associated with storage and transportation could possibly put us outside of the current analyzed configuration. For example, documents like LLNL Report #UCID-21181, "Spent Fuel Cladding Integrity During Dry Storage", provide assurance of the fuels ruggedness to withstand considerable loadings. However, it does not provide similar assurance for spent fuel whose cladding has degraded to the conditions being considered for ISG-1.

CC: David Tang, Donald E. Carlson, Eric Leeds, Kimb...

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