Spent Fuel Project Office
Interim Staff Guidance - 1

Issue: **Damaged Fuel**

Definition of Damaged Fuel

Spent nuclear fuel with *known or suspected* cladding defects greater than a hairline crack or a pinhole leak.

This definition of damaged fuel applies to both spent fuel storage and transportation.

Canning of Damaged Fuel

Damaged fuel, as defined in Item 1 above, should be canned for storage and transportation. The purpose of canning is to *confine* gross fuel particles to a known, subcritical volume during off-normal and accident conditions, and to facilitate handling and retrievability.

This provision for canning damaged fuel applies to both spent fuel storage and transportation.

Double Containment per 10 CFR 71.63(b)

Spent fuel, with plutonium in excess of 20 curies per package, in the form of debris, particles, loose pellets, and fragmented rods or assemblies must be packaged in a separate inner container (second containment system) in accordance with 10 CFR 71.63(b).

This provision for double containment applies to transportation only.

Demonstration of Fuel Condition

As proof that the fuel to be loaded is undamaged, the staff will accept, as a minimum, a review of the records to verify that the fuel is undamaged, followed by an external visual examination of the fuel assembly prior to loading for any obvious damage. For fuel assemblies where reactor records are not available, the level of proof will be evaluated on a case-by-case basis. The purpose of this demonstration is to provide reasonable assurance that the fuel is undamaged or that damaged fuel loaded in a storage or transportation cask is canned.

This provision for demonstrating the condition of the fuel applies to both storage and transportation.

Recommendation:

The SRPs be revised accordingly.

Approved _____ 11/2/98
William F. Kane **Date**