71-5874

Distribution: w/encl
RHOdegaarden (2)
DTHuang
WHLake
CRMarotta
Docket File
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396-55

JUL 30 1982

FCTC:RHO
71-5874

Department of Energy
Naval Reactors
ATTN: Mr. W. P. Engel, Director
Division of Reactor Safety and
Computation Naval Reactors
Washington, DC 20585

Gentlemen:

This refers to your application dated April 20, 1982, requesting approval of the Model No. WAPD-40 packaging.

In connection with our review, we need the information identified in the enclosure to this letter.

Please advise us within thirty (30) days from the date of this letter when this information will be provided. The additional information requested by this letter should be submitted in the form of revised pages. If you have any questions regarding this matter, we would be pleased to meet with you and your staff.

Sincerely,

Original Signed by
R. H. Odegaarden

Charles E. MacDonald, Chief
Transportation Certification Branch
Division of Fuel Cycle and
Material Safety, NMSS

Enclosure: As stated

cc w/encl:
Department of Energy
ATTN: Mr. Reuben P. Prichard
MS E-201
Washington, DC 20545

OFFICE ▶	FCTC RHO	FCTC RHO	FCTC	FCTC	FCTC RHO
SURNAME ▶	RHOdegaarden:alm	DTHuang	WHLake	CRMarotta	CEMacDonald
DATE ▶	07/30/82	07/30/82	07/30/82	07/30/82	07/30/82

U.S. Department of Energy
Model No. WAPD-40 Packaging
Docket No. 71-5874

Encl to ltr dtd: JUL 30 1982

STRUCTURAL

Following the 40-inch side puncture test, demonstrate that the leak tightness of the inner containers will not be affected, i.e., the inner containers will not be stressed beyond the yield stress.

THERMAL

1. Revise the thermal model for the fire test by removing the 6-inch diameter punched steel disk. Since the disk is sheared out in the puncture test, there is no reason to believe that it will stay in the punch hole in all possible cask orientations.

2. Provide a detailed description of the boundary conditions for the punch hole thermal model. Show that the assumed deep punch hole does not unconservatively model the actual punch hole (i.e., 2.22-inch flat and 0.66-inch puncture). If the deep hole model is used with the steel punch disk removed, include it in the discussion.

CONTAINMENT

1. Establish a containment criteria based on consideration of the package contents, and normal and accident conditions of transport. Regulatory Guide 7.4 may be used.

2. Show that the package design satisfies the established containment criteria following normal and accident condition tests of 10 CFR Part 71.

3. Justify the seal temperature criteria, include time at temperature.

OPERATING PROCEDURES, TESTS, AND MAINTENANCE

Show that the sensitivities and testing schedules are adequate for safe use of the packages. Regulatory Guide 7.4 may be used for periodic testing. For assembly verification it is recommended that a test of sufficient sensitivity to limit the maximum release to a type A quantity in 10 days is used, however, a leak test sensitivity greater than 1×10^{-3} atm-cm^3/sec, would not be required. The minimum sensitivity of 1×10^{-1} atm-cm^3/sec (air at 1 atm and 25°C leaking to a 10^{-2} at ambient) as specified in ANSI N14.5 should be met.

OFFICE ▶							
SURNAME ▶							
DATE ▶							

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