UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 3 1 1979

FCTR:RHO
71-9130

Nuclear Packaging, Inc.
ATTN: Mr. John D. Simchuk
1733 South Fawcett
Tacoma, WN 98402

Gentlemen:

This refers to your application dated August 11, 1978, as amended, requesting approval to deliver the Model No. NP-50-xxL packaging to a carrier for transport.

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 to the original Safety Analysis Report in order to preserve the continuity of your application. If you have any questions regarding this matter, we will be pleased to meet with you and your staff.

Sincerely,

Charles E. MacDonald

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

Enclosure: As stated

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Nuclear Packaging, Inc.
Model No. NP-50-xxL Packaging

Package Description

1. Dimensions of primary and secondary lids should be given in Drawing No. X-20-200D. The adjacent cask shell section should be shown in the detail drawing of Section D-D. Provide revision number to all revised drawings (presently this was not done).

2. Material specifications for the shell carbon steel, lid and welds should be given.

Tie-Downs

The cask stress evaluation (page 1-12b) should access the combined effect of multi-axial strain caused by both horizontal and vertical tie-down load components. The analysis should also consider the material strength properties at reduced temperatures.

General Packaging Standards and Type B Packages

1. Discuss the solidification of the resin process and access that there will be no significant chemical, galvanic, or other reaction among the packaging and the packaging contents.

2. Provide the information required by 10 CFR §71.32 concerning load resistance and external pressure.

Free-Drop (2-3 foot)

1. Corner/side impact - show that the effectiveness of the seal area will not be reduced by a corner/side impact.

2. End/oblique impact - show that the containment shell and plates will not yield under end/oblique impact.

3. Justify use of σ_s = 45 ksi in the crush (g-load) analysis. In the lid closure binder stress analysis (cf. free body diagram in pages 1-23) justify that (i) the total force at the impacted area is equal to and colinear with the container shell reaction force F_{tc}, (ii) neglect of resultant binder bending moment component at the cask shell/lid interface, (iii) use of ultimate strength in the binder stress evaluation under the normal transport drop impact condition, (iv) appropriateness of neglecting possible dynamic stress amplification effects, and (v) neglect of pre-load effects in the binders.

4. Provide justification for the design of all weldments on the basis of ultimate strength value.

5. Show that the containment system is adequately designed against fracture under impact loading at low temperature conditions.