

71-9073

FCTC:RHO
71-9073

DEC 0 3 1985

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FROM: Richard H. Odegaarden, FCTC, NMSS

SUBJECT: SUMMARY OF MEETING WITH OWNERS OF PACKAGES CERTIFIED
BY CERTIFICATE OF COMPLIANCE NO. 9073

Attendees

NUS

W. M. Hipsher
R. F. Sacramo
G. J. Antonucci

NUPAC

Marty Carson
Charles Temus
R. T. Haelsig

Westinghouse-Hittman Nuclear

Bryan Roy
David Wozniak

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Introduction

A meeting was held at Silver Spring, Maryland, on November 22, 1985, to discuss NRC staff plans to limit the contents of the Model Nos. OH-142 Series and NUS 10-135 packages.

Discussion

On December 31, 1985, Certificate of Compliance No. 9073 for the Model No. OH-142 Series shipping containers will be amended to authorize contents of low specific activity material only. The package identification number will also be changed to USA/9073/A at that time.

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For this package, the Nuclear Packaging, Inc. (NUPAC) safety analysis of hypothetical accident conditions is based upon the ultimate (breaking) strength of the ratchet binders. The staff recently obtained manufacturer's literature for these devices. The literature for ratchet binders states: "Breaking strengths are approximate and should be used as reference only. Good common practice dictates use of a safety factor suitable to the application; usually no less than 3 to 1." The unsuitability of basing ratchet binder designs on ultimate strength is further exemplified by the AISC code which specifies a safety factor of 5 to 1 for simple turnbuckles.

In addition, the Nuclear Packaging, Inc. safety analysis of the ratchet binders does not address the following:

1. The magnitude of the clamping force provided by ratchet binders. (With bolts, the clamping force can be controlled by the amount of torque applied to the bolt).
2. The extent to which the clamping force could vary under routine operations due to temperature changes, wear of the ratchet binder components, vibration, fatigue, etc.
3. The effectiveness of ratchet binders for resisting lateral loads imposed by cover plates and impact limiters under side and oblique angle impacts.
4. The adequacy of using ratchet binders for shipping container closures as demonstrated by actual physical testing to the hypothetical accident conditions in 10 CFR Part 71.

Based upon the foregoing and in the absence of conclusive safety information, the authorized contents for the Model No. OH-142 packaging will be limited as indicated above so that the ratchet binders need not be effective under hypothetical accident conditions.

NUPAC plans to submit a consolidated application demonstrating the Model No. OH-142 NIKIB package, which has lid bolts rather than ratchet binders, meets the requirements of Part 71 based on yield material values for the bolts.

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Original Signed by
R. W. Odegaard

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