

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

U.S. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER 9145	b. REVISION NUMBER 8	c. PACKAGE IDENTIFICATION NUMBER USA/9145/A	d. PAGE NUMBER 1	e. TOTAL NUMBER PAGES 4
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2. PREAMBLE

- This certificate is issued to certify that the packaging and contents described in Item 5 below, meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, Packaging and Transportation of Radioactive Material.
- This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

a. ISSUED TO (Name and Address):

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION:

Nuclear Packaging, Inc.
1010 South 336th Street
Federal Way, WA 98003

NUPAC application dated September 19, 1980,
as supplemented.

c. DOCKET NUMBER

71-9145

4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

5.

(a) Packaging

- (1) Model Nos.: NUPAC 50-1.5L, NUPAC 50-2.5L, NUPAC 50-3.0L, NUPAC 50-4.0L, LN-50-125, LN-50-225, LN-50-275, and LN-50-375.

(2) Description

A steel encased lead shielded casks for low specific activity material. The casks are right circular cylinder with a 48.5-inch inside diameter by 52.5-inch inside high cavity. The walls of the casks contain a lead thickness ranging from 1.25 to 3.75 inches encased in 3/8-inch thick steel shells. The bottom and top covers of the cask are made up of two, steel plates ranging in thickness from 1.00 to 3.00 inches. The primary cask lid is secured to the cylindrical cask body by eight, 1-inch ratchet binders. A secondary cask lid is centered in the primary lid and is secured to the primary lid with eight, 3/4-inch studs and nuts. Each lid is provided with a Neoprene gasket seal. The cask is provided with four equally spaced lifting/tie down devices. Casks gross weights range from 13,200 to 28,900 pounds.

(3) Drawing

The Model No. NUPAC 50 Series packagings are fabricated in accordance with Nuclear Packaging, Inc. Drawing No. X-20-201D, Sheets 1 and 2, Revision C.

The Model No. LN-50 Series packagings are fabricated in accordance with LN Technologies Corporation Drawing No. 5025M2010, Revision 1.

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(b) Contents

(1) Type and form of material

- (i) Dewatered, solids, or solidified waste, meeting the requirements for low specific activity material, in secondary containers; or
- (ii) Activated solid components meeting the requirements for low specific activity material.

(2) Maximum quantity of material per package

Greater than Type A quantity of radioactive material.

6. (a) For any package containing water and/or organic substances which could radiolytically generate combustible gases, determination must be made by tests and measurements or by analysis of a representative package such that the following criteria are met over a period of time that is twice the expected shipment time:

- (i) The hydrogen generated must be limited to a molar quantity that would be no more than 5% by volume (or equivalent limits for other inflammable gases) of the secondary container gas void if present at STP (i.e., no more than 0.063 g-moles/ft³ at 14.7 psia and 70°F); or
- (ii) The secondary container and cask cavity must be inerted with a diluent to assure that oxygen must be limited to 5% by volume in those portions of the package which could have hydrogen greater than 5%.

For any package delivered to a carrier for transport, the secondary container must be prepared for shipment in the same manner in which determination for gas generation is made. Shipment period begins when the package is prepared (sealed) and must be completed within twice the expected shipment time.

- (b) For any package shipped within 10 days of preparation, or within 10 days after venting of drums or other secondary containers, the determination in (a) above need not be made, and the time restriction in (a) above does not apply.

7. Shoring must be placed between secondary containers (or activated components) and the cask cavity to prevent movement during normal conditions of transport.

8. In addition to the requirements of Subpart G of 10 CFR Part 71:

(a) Prior to each shipment, the packaging lid seals must be inspected. The seals must be replaced with new seals if inspection shows any defects or every 12 months, whichever occurs first.

(b) Each package must meet the Acceptance Tests and Maintenance Program of:

Model No. NUPAC 50 Series

Section 7.0 of the application

Model No. LN-50 Series

LN Technologies Corporation Procedures WM-011, Rev. G; WM-013, Rev. F; and WM-031, Rev. B.

(c) The package shall be prepared for shipment and operated in accordance with Operating Procedures of:

Model No. NUPAC 50 Series.

Section 6.0 of the application

Model No. LN-50 Series

LN Technologies Corporation Procedure WM-030, Rev. B.

9. The package authorized by this certificate must be transported on a vehicle, railroad car, aircraft, inland water craft, or hold or deck of a seagoing vessel assigned for sole use of the licensee.

10. Lid lifting devices must be covered prior to transport to prevent their use as tie-down devices.

11. The cask body and each cask lid must be marked in accordance with 10 CFR §71.85(c)

12. The package authorized for use by this certificate is hereby approved for use under license provision of 10 CFR §71.12.

13. Expiration date: March 31, 1991.

CONDITIONS (continued)

Page 4 - Certificate No. 9145 - Revision No. 8 - Docket No. 71-9145

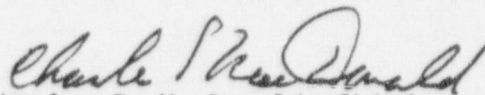
REFERENCES

Nuclear Packaging, Inc. application dated September 19, 1980.

Supplements dated: December 12 and 18, 1980; and August 25, 1982.

LN Technologies Corporation supplements dated: June 1 and July 29, 1987.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and
Transportation, NMSS

Date: AUG 7 1987

Model Nos. NUPAC 50 and LN-50 Packages
USA/9145/A

Addressees: w/encls

Ltr dtd: AUG 7 1987

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