

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

U.S. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
9932	4	USA/9932/B()	1	2

2. PREAMBLE

- a. 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."
- b. 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)

U.S. Department of Energy
Washington, DC 20585

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION:

Safety Analysis Report on Model UC-609 Shipping
Package, Report No. UCRL-52424, August 1977,
as supplemented

c. DOCKET NUMBER

71-9932

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 No.: UC-609

(2) Description

Packaging for large quantities of tritium. The containment vessel is 1/8-inch thick 316 stainless steel, 18-inches in diameter by 44 inches long. An aluminum tube forms a 10-inch diameter by 31-inch long containment cavity. The space between the stainless steel outer shell and the aluminum tube is filled with aluminum honeycomb. Access to the containment cavity is through a 10-inch diameter opening at one end. Positive closure of the flanged stainless steel cover plate is accomplished using eight (8), 3/8-inch alloy steel bolts. The cover closure is sealed with an inner copper gasket and outer Viton O-ring seal. A valved port between these gaskets is provided for leak testing. A manifold containing a valve and 200 psig pressure gage is welded to the center of the cover plate. The containment vessel is centered and supported within a 16-gauge steel drum 25 inches in diameter by 54-1/2 inches high using Celotex insulation. The package gross weight is 500 pounds.

(3) Drawings

The packaging is constructed in accordance with Lawrence Livermore Laboratory Drawing Nos.: AAA76-109771-0C, AAA75-113967-0B, AAA75-113083-0A, AAA77-102165-00, AAA75-112930-0A, AAA77-104161-00, AAA77-104165-0A and AAA77-104163-0B.

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(b) Contents

(1) Type and form of material

Tritium in any form held within secondary containers.

(2) Maximum quantity of material per package

Decay heat not to exceed 48 watts. Not more than 25 gm-moles (150 grams) of tritium.

6. The initial pressure within the containment vessel and secondary containers shall be such that if all gases were released from the secondary containers the maximum pressure within the containment vessel, at 20°C (68°F) would not exceed:

(a) 84 psig when no water is present, or

(b) 45 psig when water is present.

7. The weight of the secondary containers shall not exceed a total of 120 pounds.

8. Acceptance tests and maintenance shall be in accordance with Section 8.0 of Lawrence Livermore Laboratory Report No. UCRL-52424, August 1977.

9. Operating procedures equivalent to those specified in Section 7.0 of Lawrence Livermore Laboratory Report No. UCRL-52424, August 1977, shall be established for use.

10. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.

11. Expiration date: March 31, 2002.

REFERENCES

Lawrence Livermore Laboratory Report No. UCRL-52424, August 1977.

DOE Supplement dated: October 30, 1995.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Cass R. Chappell

Cass R. Chappell, Chief
Package Certification Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Date: 03/19/97



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

APPROVAL RECORD
Model No. UC-609
Certificate of Compliance No. 9932
Revision No. 4

By application dated October 25, 1995, the Department of Energy requested renewal of Certificate of Compliance No. 9932. The application also included changes to the package. The changes to the package will be considered as a separate amendment.

The Certificate of Compliance has been renewed for a five-year term which expires on March 31, 2002.

Cass R. Chappell
Cass R. Chappell, Chief
Package Certification Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Date: 03/19/97