U.S. NUCLEAR REGULATORY COMMISSION CERTIFICATE OF COMPLIANCE NRC FORM 618 (8-86) 10 CER 71 FOR RADIOACTIVE MATERIALS PACKAGES

10 CFR 71	FOR RADIOACTIVE MILITERIA		THE PLANT AND PARTY	. TOTAL NUMBER PAGES
1.8 CERTIFICATE NUMBER	b. REVISION NUMBER	C. PAUTONIAL IDEATOR	d PAGE NUMBER	e. (OTAL HOMBEN THE
9143	3	USA/9143/B(U)		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 owner 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 OF APPLICATION B. ISSUED TO (Name and Address)

Amersham Corporation 40 North Avenue Burlington, MA 01803

Technical Operations, Inc. application dated August 1, 1980,

71-9143 c. DOCKE, NUMBER

This certificate is conditional upon fulfilling the requirements of 10 C' R Part 71, as applicable, and the conditions specified below 4. CONDITIONS

- (a) Packaging
 - (1) Model No.: 920
 - (2) Description

A stainless steel encased, uranium shielded radiographic device. The shipping container is 13.0 inches long, 7.7 inches high and 5.3 inches wide. The radioactive source assembly is housed inside a tungsten source tube. The source tube is surrounded by depleted uranium metal for shielding. The depleted uranium shield assembly is encased in a stainless steel housing. The void space between the uranium shield assembly and stainless steel housing is filled with a castable rigid polyurethane foam. The gross weight of the container is 47.0 pounds.

(3) Drawings

The packaging is constructed in accordance with the following Technical Operations, Inc. Drawing Nos. 92090, Sheets 1, 2, and 3 of 3, Rev. 0; 90090, Sheets 3, and 4 of 4, Rev. 0; and 90091, Sheet 1 of 1, Rev. A.

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- 5. (b) Contents
 - (1) Type and form of material

 Iridium 192 as sealed sources which meet the requirements of special form radioactive material.
 - (2) Maximum quantity of material per package 240 curies
- 6. The source shall be secured in the shielded position of the packaging by the source assembly. The source assembly must be fabricated of materials capable of resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The source assembly must engage the locking device. The source assembly must be of sufficient length and diameter to provide positive positioning of the source within the depleted uranium shield assembly.
- 7. The name plate shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
- 8. In addition to the requirements of Subpart G of 10 CFR Part 71:
 - a. The package shall be prepared for shipment and operated in accordance with the Operating Procedures of Section 7.0 of the application, as supplemented; and
 - b. The package must meet the Acceptance Tests and Maintenance Program of Section 8.0 of the application, as supplemented.
- 9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
- 10. Expiration Date: January 31, 1996.

REFERENCES

Technical Operations, Inc application dated August 1, 1980.

Amersham Corporation supplement dated November 12, 1990.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald, Chief

Transportation Branch Division of Safeguards

and Transportation, NMSS

Date: DEC 1 9 1990



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20655

APPROVAL RECORD

Model No. 920 Shipping Package
Certificate of Compliance No. 9143
Revision No. 3

By letter dated November 12, 1990, Amersham Corporation requested renewal of Certificate of Compliance No. 9143. No changes to the package design have been requested since the certificate was renewed on January 13, 1986.

The certificate of compliance has been conditioned to require the packaging to be prepared, operated, and maintained in accordance with Sections 7 and 8 of the application, as supplemented. Also, the company name of the certificate holder have been changed from Tech Ops. to Amersham Corporation. The revised operating procedures include a radiation survey and visual test to assure that a radiation source is not in the package when it is shipped as empty.

The certificate of compliance has been renewed for a five year term which expires January 31, 1996.

Charles E. MacDonald, Chie

Transportation Branch Division of Safeguards

and Transportation, NMSS

Date: DEC 1 9 1990