U.S. ATOMIC ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE

For Radioactive Materials Packages

1a. Certificate Number	1b. Revision No.	1c. Package Identification No.	1d. Pkg. No.	1e. Total No. Pkgs.
9019	0	USA/9019/B( )F	1	3

2. PREAMBLE

2a. This certificate is issued to comply with Sections 173.393a, 173.394, 173.395 and 173.396 of the Department of Transportation Hazardous Materials Regulations (49 CFR 170-189 and 14 CFR 103) and Section 71.12 of the U.S. Atomic Energy Commission Regulations (10 CFR 71), as amended.

2b. This package is designed to meet the safety standards set forth in Section 71.31 of Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material for Transport and Transportation of Radioactive Material Under Special Conditions."

2c. This certificate shall 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:

(1) Prepared by (Name and address):

General Electric Company
175 Curtner Avenue
San Jose, California 95125

(2) Title and identification of report or application:

(a) Application by letter dated May 24, 1974
(b) General Electric Model BU-7 Uranium Shipping Container - Criticality Safety Analysis dated February 1974.

(3) Docket No. 71-9019

4. CONDITIONS

This certificate is conditional upon the following requirements of Section D of 10 CFR 71, as applicable, and the conditions specified below:

5. Description of Packaging and Authorized Contents, Model Number, Fissile Class, Other Conditions, and References.

(a) Packaging

(1) The packaging is identified as Model No. BU-7.

(2) The packaging consists of either two 5-gallon or three 2.5-gallon, 11.25 inch ID, minimum 24-gauge steel pails contained in a 13.75 inch-diameter by 27 inch long inner container constructed of minimum 18-gauge steel, with bolted and gasketed top flange closure. The inner container is centered and supported in a 22.5 inch ID, 18-gauge steel 55-gallon capacity DOT 17H drum by solid insulating material composed of fire-retardant phenolic foam. The container is constructed in accordance with Fig. 1.8.1, Appendix D, of General Electric Company's application dated May 24, 1974. The maximum weight of the package is 350 pounds.

(b) Contents - Fissile Class I

(1) Uranium oxide powder with a maximum bulk density not greater than 2.3 grams/cc. Uranium may be enriched to not more than 4 w/o in the U-235 isotope. The maximum H/U-235 atomic ratio considering all sources of hydrogenous material within the inner container shall not exceed 0.45. The maximum contents per package and pail for the maximum U-235 enrichment shall be limited in accordance with the following table:

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(b)(1) Contents (cont.)

Maximum U-235 enrichment w/o	Maximum UO_2 per pail kgs	Maximum UO_2 per package kgs
3.0	44.5	89.0
3.2	38.9	77.8
3.4	34.6	69.2
3.6	31.1	62.2
3.8	28.3	56.6
4.0	25.7	51.4

(2) Uranium oxide as pellets with a maximum bulk density of 10.96 grams/cc. Uranium may be enriched to a maximum 4 w/o in the U-235 isotope. The maximum contents per package and pail for the maximum U-235 enrichment shall be limited in accordance with the following table:

Maximum U-235 enrichment w/o	Maximum UO_2 per pail kgs	Maximum UO_2 per package kgs
2.7	45.0	90.0
2.8	42.9	85.8
2.9	40.1	80.2
3.0	38.1	76.2
3.2	34.1	68.2
3.4	31.0	62.0
3.6	28.5	57.0
3.8	26.4	52.8
4.0	24.7	49.4

6. For mixtures of contents described in 5(b)(1) and 5(b)(2), the maximum quantity of material per package shall be limited to the quantity given in 5(b)(2).

7. The density of the package insulation shall not be less than 8 lbs/cu.ft. for the side and bottom and 20 lbs/cu.ft. for the top.

8. The four 1/4-inch diameter holes located near the top of the outer DOT 17H drum as shown in Fig. 1.8.1 shall be covered with weather-proof tape to preclude the entry of water.

9. The package authorized by this certificate is hereby approved for use under the general license provisions of Paragraph 71.12(b) of 10 CFR Part 71.

10. Expiration date: August 31, 1979.

REFERENCES

Licensee's application dated May 24, 1974, requesting approval to deliver special nuclear material to a carrier for transport in the above container.

FOR THE U.S. ATOMIC ENERGY COMMISSION

R.H. Engelken for

Charles E. MacDonald, Chief
Transportation Branch
Directorate of Licensing

Date August 6, 1974

Director, OWRS
May 15, 1980

ATTACHMENT 2

ORIGINAL APPLICATION

FOR BU-7 PACKAGE CERTIFICATE OF COMPLIANCE

A. L. Kaplan
:lmw