

U.S. NUCLEAR REGULATORY COMMISSION
CERTIFICATE OF COMPLIANCE
For Radioactive Materials Packages

1.(a) Certificate Number 9019	1.(b) Revision No. 6	1.(c) Package Identification No. USA/9019/AF	1.(d) Pages No. 1	1.(e) Total No. Pages 3
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2. PREAMBLE

- 2.(a) This certificate is issued to satisfy 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 Sections 146-19-10a and 146-19-100 of the Department of Transportation Dangerous Cargoes Regulations (46 CFR 146-149), as amended.
- 2.(b) The packaging and contents described in item 5 below, meets the safety standards set forth in Subpart C of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 2.(c) 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—

3.(a) Prepared by (Name and address): General Electric Company P.O. Box 760 Wilmington, NC 28401	3.(b) Title and identification of report or application: General Electric Company application dated July 25, 1980, as supplemented.
	3.(c) Docket No. 71-9019

4. CONDITIONS

This certificate is conditional upon the fulfilling of the requirements of Subpart D of 10 CFR 71, as applicable, and the conditions specified in item 5 below.

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

(a) Packaging

- (1) Model No.: BU-7.
- (2) Description

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 Specification 17H, or equivalent, steel drum by solid insulating material composed of fire-retardant phenolic foam. The maximum weight of the package is 320 pounds.

(3) Drawing

The container is constructed in accordance with General Electric Company Drawing No. 112D1592, Revision 1.

5. (b) Contents

(1) Type and form of material

- (i) Uranium oxide powder with a maximum bulk density not greater than 4.5 grams/cc. Uranium may be enriched to not more than 4.0 w/o in the U-235 isotope. The maximum H/U atomic ratio considering all sources of the hydrogenous material within the inner container shall not exceed 1.6.
- (ii) Uranium oxide as pellets with a maximum bulk density of 10.96 grams/cc. Uranium may be enriched to a maximum 4.0 w/o in the U-235 isotope.

(2) Maximum quantity of material per package

- (i) For the contents described in 5(b)(1)(i):

The maximum contents of uranium oxide powder per package and pail shall be limited to 70 kgs and 35 kgs, respectively.

- (ii) For the contents described in 5(b)(1)(ii):

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	35.0	70.0
2.8	35.0	70.0
2.9	35.0	70.0
3.0	35.0	70.0
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

(c) Fissile Class

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- 6. For mixtures of contents (powders and pellets) described in 5(b)(1), the maximum quantity of material per package shall be limited to the quantity given in 5(b)(2)(ii).
- 7. For mixtures of contents as described in 5(b)(1)(i), ammonium oxalate and/or ammonium bicarbonate additives are permitted in the UO₂ powder to the extent that the C/U ratio does not exceed 1.27.
- 8. The four, 1/4-inch diameter holes located near the top of the outer DOT Specification 17H steel drum shall be covered with weatherproof tape to preclude the entry of water.

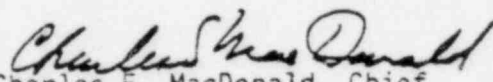
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12(b).
10. Expiration date: July 31, 1984.

REFERENCES

General Electric Company application dated July 25, 1980.

Supplement dated: October 6, 1980.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION


Charles E. MacDonald, Chief
Transportation Certification Branch
Division of Fuel Cycle and
Material Safety

Date: OCT 15 1980