

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

1.(a) Certificate Number	1.(b) Revision No.	1.(c) Package Identification No.	1.(d) Pages No.	1.(e) Total No. Pages
5939	6	USA/5939/B( )F	1	3

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 460 Pleasanton, CA 94566	3.(b) Title and identification of report or application: General Electric Company application dated February 21, 1980, as supplemented.
	3.(c) Docket No. 71-5939

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.: GE-1500

(2) Description

A steel encased lead shielded shipping cask. The cask is a double-walled steel circular cylinder, 31-inch-diameter by 48 inches high with a central cavity 7-inch-diameter by 25 inches high. The diameter is reduced from 31 inches to 17-1/2 inches by cone construction at the top 7-1/2 inches of the cask. Approximately 11 inches of lead surround the central cavity. The cask is equipped with a cavity drain line and lifting device. Closure is accomplished by a gasketed and bolted steel lead-filled plug. A protective jacket consisting of an upright circular cylinder with open bottom and a protruding box section diametrically across the top and vertically down the sides attaches to a square pallet. Dimensions of the protective jacket are 60-7/8 inches high by 49-3/4 inches wide across the box section. The outer cylindrical diameter is 36-1/2 inches and the pallet is 59-1/2 inches square. The maximum weight of the packaging is approximately 15,000 pounds.

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5. (a) Packaging (continued)

(3) Drawings

The packaging is constructed in accordance with the following General Electric Company Drawing Nos.:

706E441, Rev. 12	135C5598, Rev. 2
706E792, Rev. 5	163B8389, Rev. 2
106D3858, Rev. 6	129D4690, Rev. 0
106D3870, Rev. 11	

(b) Contents

(1) Type and form of material

(i) Byproduct material and special nuclear material meeting special form requirements of 10 CFR §71.4(o) and antimony pins encased in stainless steel; or

(ii) Byproduct material in the form of  $^{90}\text{SrF}_2$  or  $^{137}\text{CsCl}$ .

(2) Maximum quantity of material per package

Not to exceed a decay heat generation of 3,120 watts and

(i) Item 5(b)(1)(i) above:

Plutonium in excess of twenty (20) curies per package must be in the form of metal, metal alloy or reactor fuel elements, and 500 grams U-235 equivalent mass. (U-235 equivalent mass equals U-235 mass plus 1.66 times Pu mass.)

(ii) Item 5(b)(1)(ii) above:

458,000 Ci.

(c) Fissile Class

III

Maximum number of packages per shipment

22

6. For the contents described in Item 5(b)(1)(ii) above:

$^{90}\text{SrF}_2$  shall be encapsulated in accordance with Vitro Drawing Nos. H-2-66759, Rev. 0; and H-2-66758, Rev. 0; or

$^{137}\text{CsCl}$  shall be encapsulated in accordance with Vitro Drawing Nos. H-2-66760, Rev. 0; and H-2-66761, Rev. 0.

The  $^{90}\text{SrF}_2$  and  $^{137}\text{CsCl}$  capsules after fabrication shall be leak tested using a method having sufficient sensitivity to detect a leak rate (air at standard

temperature and pressure leaking to  $10^{-2}$  atm) of  $10^{-8}$  atm cc/sec. Any capsule with a detectable leak shall not be delivered to a carrier for transport.

7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12(b).
8. Expiration date: April 31, 1981.

REFERENCES

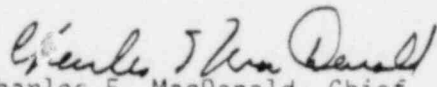
General Electric Company application dated February 21, 1980.

Additional References Required for Contents 5(b)(1)(ii):

Oak Ridge National Laboratory letter dated April 3, 1980.

Supplement dated: May 7, 1980.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: OCT 31 1980