Form NRC-618
(12-73)
10 CFR 71

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
9139	2	USA/9139/A	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 March 24, 1980, as supplemented.

3.(c) Docket No. 71-9139

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.: 589

(2) Description

A steel encased lead shielded cask for low specific activity radioactive material. The cask is a right circular cylinder with 79-inch OD by 80-inch height, and a cavity 74-inch ID by 74-inch height. The 1.5-inch thick lead shield is supported by outer and inner carbon steel shells 0.75-inch and 0.375-inch thick, respectively. The bottom 1.56-inch thick lead shield is supported by outer and inner carbon steel plates 1.0-inch and 0.375-inch thick, respectively. The 1.5-inch thick lead lid shield is supported by outer and inner carbon steel plates 1-inch and 0.5-inch thick, respectively. The carbon steel used is SA516, Grade 70. The lid is attached to the cask with eight (26,000 lb proof load each) ratchet type load binders and sealed with a Buna "N" O-ring. The cask is equipped with a 3/4-inch drain line, sixteen-hole bolt-down flange (1-inch bolts) and two, 2-1/2-inch diameter lifting lugs. The cask lid seal and lifting lugs are protected by a wooden sacrificial impact limiter (about 8 x 10 inches thick). Gross weight of package and impact limiter, 50,000 lbs.

5. (a) Packaging (continued)

(3) Drawing

The packaging is constructed in accordance with PX Engineering Company, Inc., Drawing No. 589-L, Sheets 1 through 3, Revision No. 0.

(b) Contents

(1) Type and form of material

Dewatered or solidified waste material in sealed secondary containers or solid irradiated hardware, meeting the requirements for low specific activity radioactive material.

(2) Maximum quantity of material per package

Greater than Type A quantities of radioactive material with the weight of the contents, secondary containers and shoring not exceeding 20,150 pounds.

6. Shoring must be placed between secondary containers (or activated components) and the cask cavity to prevent movement during normal conditions of transport.

7. The lid lifting lugs must not be used for lifting the cask and must be covered in transit.

8. The packaging acceptance tests and maintenance program must be in accordance with Section 7.0 of the application except:

(a) The lid O-ring seal must be replaced if inspection prior to each shipment shows any defects or every twelve (12) months, whichever occurs first.

(b) During inactive periods, the maintenance and testing frequency may be disregarded provided that the packaging is brought into full compliance prior to the next use of the package.

9. The package authorized by this certificate must be transported on a motor vehicle, railroad car, aircraft, inland water craft, or hold or deck of a seagoing vessel assigned to sole use of the licensee.

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

11. Expiration Date: July 31, 1985.

REFERENCES

General Electric Application dated March 24, 1980.

Supplement dated: May 29, 1980.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: JUL 22 1982

U.S. Nuclear Regulatory Commission
Transportation Certification Branch
Approval Record
Model No. 589 Packaging
Docket No. 71-9139

By application dated July 7, 1982, Tennessee Valley Authority requested deletion of the requirement that dewatered waste material be contained in sealed secondary containers meeting the requirements for DOT Specification 7A (49 CFR §178.350).

The staff concluded in the safety evaluation report (dated July 22, 1980) written at the time of the original approval that the inner cask shell was the containment barrier. The vessel is sealed with a Buna "N" O-ring and eight (8) ratchet type load binders. The cask seal is protected by a wooden sacrificial impact limiter.

The staff concludes that providing sealed secondary liners for contamination control is sufficient to meet the requirements of 10 CFR Part 71 for this packaging design and contents.

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

Date: JUL 22 1982