

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

| 1. a. CERTIFICATE NUMBER | b. REVISION NUMBER | c. DOCKET NUMBER | d. PACKAGE IDENTIFICATION NUMBER | PAGE | PAGES |
|--------------------------|--------------------|------------------|----------------------------------|------|-------|
| 9794                     | 4                  | 71-9794          | USA/9794/B(U)-96                 | 1 OF | 3     |

**2. PREAMBLE**

- a. This certificate is issued to certify that the package (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 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**

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| <p>a. ISSUED TO (<i>Name and Address</i>)</p> <p>U.S. Department of Energy<br/>Division of Naval Reactors<br/>Washington, DC 20585</p> | <p>b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION</p> <p>Safety Analysis Report for Packaging for CGN<br/>Reactor Compartment Disposal,<br/>dated July 12, 1994, as supplemented.</p> |
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**4. CONDITIONS**

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

- 5.
- (a) Packaging
- (1) Model No.: CGN Reactor Compartment Disposal Package

(2) Description

The package consists of one deactivated and defueled CGN 36, 37, 38, 39, or 40 (36-40) Reactor Compartment that has been separated from the remainder of the cruiser hull and prepared for shipment by enclosing the entire reactor compartment within a welded steel container. The package is approximately cylindrical, about 40-feet high and about 32-feet in diameter. The entire package is a sixteen-sided polyhedron with an enlarged base containing support fixtures, which extend approximately 10 feet beyond the diameter of the package and provide lift points for the package. The container is constructed of high strength steel (MIL-S-22698). The reactor compartment decks, inner-bottom tank structure, secondary shield, and primary shield tank provide internal support and are fastened to the container by welding. The reactor compartment components are drained of water, except for small inaccessible pockets. The maximum weight of the CGN 36-40 package is 5,000,000 pounds. Potentially radioactive contaminated components and piping from areas outside the reactor compartment may be secured within the package.

(3) Drawings

The packaging is constructed in accordance with the drawings in Chapter 1 of the application.

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## 5.(b) Contents

## (1) Type and form of material

Activated structural components associated with the CGN 36-40 reactor, plant piping, ion exchanger resin, purification filter media (which may be solidified), and other components contaminated with radioactive corrosion products (crud). Residual liquid, primarily water, some of which contains low level radioactivity, may be present in quantities up to 850 gallons in the CGN 36-40 package.

## (2) Maximum quantity of material per package

The maximum quantity of radioactive material contents (crud and activation) shall not exceed the quantities specified in Section 1.2.3.1 of the application.

6. (a) The shipment of a CGN 36-37 package shall be no earlier than 639 days after shutdown.
- (b) The shipment of a CGN 38-40 package shall be no earlier than 365 days after shutdown.
7. The Lowest Service Temperature (LST) must be determined for each package. The package shall not be shipped unless its LST is less than or equal to the daily minimum temperature expected during shipment of the package, as determined on the basis of weather forecasts.
8. (a) For CGN 36-37 packages, the Co-60 curie content of ion exchanger resin shall be less than 6.8 curies. The Co-60 curie content of purification filter media (which has not been solidified) shall be less than 4.1 curies. The combined Co-60 curie content of ion exchanger resin and unsolidified purification filter media shall be less than 10.6 curies.
- (b) For CGN 38-40 packages, the Co-60 curie content of ion exchanger resin shall be less than 6.8 curies. The Co-60 curie content of purification filter media (which has not been solidified) shall be less than 5.3 curies. The combined Co-60 curie content of ion exchanger resin and unsolidified purification filter media shall be less than 9.58 curies.
9. (a) CGN 36-37 reactor vessels shall have been operated for less than 18,683 effective full power hours.
- (b) CGN 38-40 reactor vessel shall have been operated for less than 14,300 effective full power hours.
10. In addition to the requirements of Subpart G of 10 CFR Part 71:
  - (a) The package must be prepared for shipment and operated in accordance with Chapter 7 of the application.
  - (b) The package must be acceptance tested in accordance with Chapter 8 of the application.
11. Revision No. 3 of this certificate may be used until February 28, 2007.
12. Expiration date: February 28, 2011

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REFERENCES

"Safety Analysis Report for Packaging for CGN Reactor Compartment Disposal," dated July 12, 1994.

Supplements Dated: November 10, 1994; July 14, 1995; November 22, 1996; June 16 and July 17, 1998; December 22, 1999; and August 30, 2005.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Robert A. Nelson, Chief  
Licensing Section  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

Date: February 8, 2006

