

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
9144	0	USA/9144/A	1	2

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): Chem-Nuclear Systems, Inc. P. O. Box 1866 Bellevue, WA 98009	3.(b) Title and identification of report or application: Chem-Nuclear Systems, Inc. application dated January 19, 1981, as supplemented.
	3.(c) Docket No. 71-9144

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.: SGC-1
- (2) Description

A steel shipping container for shipment of the lower assembly of a steam generator. The external dimensions of the packaging are 42'6" length and ranging in diameter from 13'5" to 15'7". The packaging consists of a cylindrical section rolled from 2.5" thick steel plate with 2.75" thick end plates. The packaging is flanged down the center of the cylinder and sealed with a Neoprene gasket and 112, two-inch bolts on 12-inch centers. The lower shell assembly has two external saddle base support assemblies. The packaging is provided with two drain plugs. The packaging weight is 276,000 pounds and the gross weight is 722,000 pounds.

The top and bottom openings are sealed with 3 to 5-inch thick steel plate welded to the steam generator. All other openings are sealed with 2" thick (minimum) plate or bar steel and welded closed.

(3) Drawings

The packaging is constructed in accordance with Chem-Nuclear Systems, Inc. Drawing Nos. 110-2700-E01, Revision A; 110-2700-E02, Sheet Nos. 1 thru 3, Revision A; 110-2700-E03, Revision A; 112-2700-E01, Revision A; and 115-0127-001, Revision A.

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(b) Contents

(1) Type and form of material

Steam generator lower assembly containing radioactive material adhering to the inside of the tube surfaces.

(2) Maximum quantity of material per package

750 Ci of principally corrosion products, mainly Co-60.

6. The steam generator lower assembly must be sealed in accordance with Figures 1.2-3, Rev. 2 and 1.2-5, Rev. 1 (pp 1-10 and 1-11). The exterior surface of the steam generator lower assembly must be decontaminated to no more than 220 dpm/100cm².
7. In lieu of meeting the requirements of 10 CFR §§71.31(d) and 71.36 and Appendix A, Free Drop, 10 CFR 71:
 - a. An escort must be provided during land transport which is knowledgeable in the use of radiation survey instrument, be equipped with an appropriate survey instrument, supplies to permit the establishment of a radiation exclusion area, and be provided with written procedures to be followed in an emergency situation.
 - b. Appropriate means must be taken to control the maximum land speed to 10 mph. On curves and grades, the maximum land speed must be limited to 5 mph.
8. The lifting devices must be securely covered during transport to prevent their use during transport as a tie-down device or for lifting the loaded package.
9. The package authorized by this certificate must be transported on a vehicle, inland water craft, or barge assigned for sole use of the licensee.
10. The package authorized for use by this certificate is hereby approved for use under license provision of 10 CFR §71.12(b).
11. Expiration date: April 30, 1986.

REFERENCES

Chem-Nuclear Systems, Inc. application dated January 19, 1981.
Supplements dated: March 31, and April 21, 1981.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: APR 27 1981