

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

1.(a) Certificate Number 9111	1.(b) Revision No. 2	1.(c) Package Identification No. USA/9111/A	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):  Nuclear Packaging, Incorporated 1733 South Fawcett Tacoma, Washington 98402	3.(b) Title and identification of report or application:  Nuclear Packaging, Incorporated, application dated March 6, 1978, as supplemented.  3.(c) Docket No. 71-9111
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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.: CN6-80A

(2) Description

A steel encased, lead shielded cask for solid radioactive material meeting the requirements for low specific activity radioactive material. The overall dimensions of the cask are 70-1/2-inch diameter by 73-5/8-inch height. The cask consists of two concentric carbon steel cylindrical shells surrounding a 4-1/4-inch thick lead shield. The 3/8-inch thick inner shell has a 59-inch I.D., and the 1-inch thick outer shell has a 70-1/2-inch O.D.; the base consists of 4-inch thick welded steel plates of 60-inch diameter and 70-1/2-inch diameter, and a stepped welded lid comprised of two 4-inch thick steel plates containing a centered 29-inch diameter secondary lid of similar construction with an additional 1-inch thick upper plate. The containment cavity is 59-inch diameter by 58-inches high. Closure of the primary lid is accomplished by eight, 1-1/4-inch bolts with nuts. Both lids are sealed using silicone gaskets bonded to the lid plates. The secondary lid has a redundant neoprene seal. A plugged drain port is located at the cask bottom. The cask is lined with 12 gauge stainless steel. Three lift lugs, located on the

1526 294

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5. (a) (2) Packaging Description (Continued)

secondary lid are used for lifting both the cask and the primary lid. Four lugs, welded to the outer shell are used for tie-down. The package gross weight is approximately 51,500 pounds.

(3) Drawing

The packaging is fabricated in accordance with Nuclear Packaging, Incorporated Drawing No. BC-20-200D, Sheets 1 and 2 of 2, Revision C.

(b) Contents

(1) Type and form of material

- (i) Greater than Type A quantities of byproduct material contained in solids and solidified waste, meeting the requirements for low specific activity radioactive materials as defined in 10 CFR §71.4(g), in secondary containers.
- (ii) Greater than Type A quantities of byproduct material contained in activated solid components meeting the requirements for low special activity radioactive material as defined in 10 CFR §71.4(g).

(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 7,500 pounds. The decay heat load shall not exceed 400 watts.

- 6. Shoring shall be provided in the shipping cask cavity sufficient to prevent significant movement of the contents or secondary containers relative to the outer packaging under normal conditions of transport.
- 7. The drain line should be plugged and sealed prior to transport.
- 8. The package authorized by this certificate shall be transported on a motor vehicle, railroad car, aircraft, inland water craft, or hold or deck of a seagoing vessel assigned for sole use of the licensee.
- 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 dated: July 31, 1983.

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1526 295

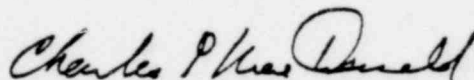
REFERENCES

Nuclear Packaging, Incorporated application dated March 6, 1978.

Supplements dated: June 7 and 28, 1978.

Chem-Nuclear Systems, Inc. Supplement dated June 29, 1979.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



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

Date: NOV 30 1979