

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
9086	5	USA/9086/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):	3.(b) Title and identification of report or application
Hittman Nuclear & Development Corporation 9190 Red Branch Road Columbia, Maryland 21045	Hittman Nuclear & Development Corporation application dated January 13, 1977, as supplemented
	3.(c) Docket No. 71-9086

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.: HN-100 Series 1
- (2) Description

A steel encased, lead shielded cask for low specific activity material. The cask is a right circular cylinder 81.5 inches high by 81.5 inches in diameter. The cask cavity is 73.5 inches high by 75.5 inches in diameter. The cask side wall consists of a 3/8-inch thick inner steel shell, a 1-3/4-inch lead shell, and a 7/8-inch thick outer steel shell. The base is a 4-inch thick steel plate which is welded to the inner and outer steel shells of the side wall. A steel flange is welded to the inner and outer steel shells of the side wall at the top. The lid is a 4-inch thick steel plate which is stepped to mate with the steel flange. The cask closure is sealed by a Viton O-ring gasket located between the lid and steel flange. Positive lid closure is accomplished by thirty, 1-inch bolts. The lid contains a centrally located 4-inch stepped steel shield plug. The shield plug is sealed by a Viton O-ring gasket, and sixteen, 1/2-inch bolts are used to provide positive closure.

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5. (a) Packaging (cont'd)

(2) Description (cont'd)

Tie-down is accomplished by four tie-down lugs welded to the cask body. There are three casks lifting lugs, three lid lifting lugs, and one shield plug lifting lug. The package gross weight is approximately 50,000 pounds.

(3) Drawings

The packaging is constructed in accordance with Hittman Nuclear & Development Corporation Drawing Nos. C001-5-9100, Sheets 1, 2 and 3, Revision C; and C001-5-9120, Sheet 1, Rev. 0.

(b) Contents

(1) Type and form of material

Process solids either dewatered, solid or solidified meeting the requirements for low specific activity radioactive material, in secondary containers.

(2) Maximum quantity of material per package

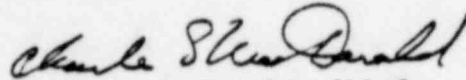
Greater than Type A quantities of radioactive material with the weight of the contents, secondary containers and shoring not exceeding 14,500 pounds.

6. Shoring shall be placed between secondary containers and the cask cavity to minimize movement during normal conditions of transport.
7. The lid and shield plug lifting lugs shall not be used for lifting the cask, and shall be covered in transit.
8. Prior to each shipment, the packaging lid seals shall be inspected. The seals shall be replaced with new seals if inspection shows any defects or every twelve (12) months, whichever occurs first.
9. The package authorized by this certificate shall be transported on a motor vehicle, railroad car, aircraft, inland watercraft, or hold or deck of a seagoing vessel assigned for the 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: August 31, 1982.

REFERENCES

Hittman Nuclear & Development Corporation application dated January 13, 1977.  
Supplements dated: October 6, 1977; September 11, 1978; and March 17, 1980.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



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

Date: MAR 17 1980