

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

U.S. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
9086	13	USA/9086/A	1	3

2. PREAMBLE

- This certificate is issued to certify that the 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."
- 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
- ISSUED TO (Name and Address)
 - TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Westinghouse Hittman Nuclear
Incorporated
1256 North Church Street
Moorestown, NJ 08057

Hittman Nuclear & Development Corporation
application dated March 1, 1983.

c. DOCKET NUMBER 71-9086

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.: HN-100 Series 1

(2) Description

A steel encased, lead shielded cask for low specific activity material. The cask is a right circular cylinder 82.5 inches high by 81.5 inches in diameter. The cask cavity is 74.5 inches high by 75.63 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 or Buna-N O-ring gasket located between the lid and steel flange. Positive lid closure is accomplished by thirty, 1-inch studs and nuts. The lid contains a centrally located 4-inch stepped steel shield plug. The shield plug is sealed by a Viton or Buna-N O-ring gasket, and sixteen, 1/2-inch studs and nuts are used to provide positive closure.

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 50,000 pounds.

(3) Drawings

The packaging is constructed in accordance with Hittman Nuclear & Development Corporation Drawing Nos. STD-02-028, Revision 8; STD-02-029 Revision 5; and STD-02-030, Revision 4.

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5. (b) Contents

(1) Type and form of material

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

(2) Maximum quantity of material per package

Greater than Type A quantity of radioactive material with the weight of the contents, secondary containers and shoring not exceeding 14,500 pounds except the weight of the contents in HN-100 Series 1, Unit 5 must not exceed 6,900 pounds. Internal decay heat must not exceed 7 thermal watts.

6. (a) For any package containing water and/or organic substances which could radiolytically generate combustible gases, determination must be made by tests and measurements or by analysis of a representative package such that the following criteria are met over a period of time that is twice the expected shipment time:

- (i) The hydrogen generated must be limited to a molar quantity that would be no more than 5% by volume (or equivalent limits for other inflammable gases) of the secondary container gas void if present at STP (i.e., no more than 0.063 g-moles/ft³ at 14.7 psia and 70°F); or
- (ii) The secondary container and cask cavity must be inerted with a diluent to assure that oxygen must be limited to 5% by volume in those portions of the package which could have hydrogen greater than 5%.

For any package delivered to a carrier for transport, the secondary container must be prepared for shipment in the same manner in which determination for gas generation is made. Shipment period begins when the package is prepared (sealed) and must be completed within twice the expected shipment time.

- (b) For any package shipped within 10 days of preparation, or within 10 days after venting of drums or other secondary containers, the determination in (a) above need not be made, and the time restriction in (a) above does not apply.
- 7. Except for close fitting contents, shoring must be placed between secondary containers and the cask cavity to minimize movement during normal conditions of transport.
 - 8. The lid and shield plug lifting lugs must not be used for lifting the cask, and shall be covered in transit.
 - 9. Prior to each shipment, the packaging lid seals, if opened (or if security seal is broken), must be inspected. The seals must be replaced with new seals if inspection shows any defects or every twelve (12) months, whichever occurs first.

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10. The package authorized by this certificate must 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.
11. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
12. Expiration date: March 31, 1988.

REFERENCE

Hittman Nuclear & Development Corporation application dated March 1, 1983.

Supplement dated: July 29, 1987.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald

Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and
Transportation, NMSS

Date: AUG 27 1987

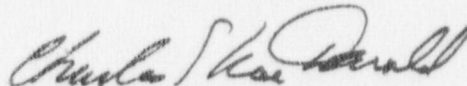


UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Transportation Branch
Approval Record
Model No. HN-100 Series 1
Docket No. 71-9086
Revision No. 13

By application dated July 29, 1987, Westinghouse Hittman Incorporation submitted, for incorporation into the certificate of compliance, a revised packaging drawing, STD-02-028, Revision 8. This drawing shows the as-built configuration of the drain line and drain plug assembly.

The as-built configuration of the drain line and drain plug assembly has no significant effect on the cask design. The performance requirements of 10 CFR Part 71 have been met.


Charles E. MacDonald, Chief
Transportation Branch
Division of Safeguards and
Transportation, NMSS

Date: AUG 27 1987