

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
6574	2	USA/6574/B( )	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): Hittman Nuclear and Development Corporation 9190 Red Branch Road Columbia, MD 21045	3.(b) Title and identification of report or application: Hittman Nuclear and Development applica- tion dated June 10, 1974, as supplemented.
	3.(c) Docket No. 71-6574

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-200

(2) Description

The packaging consists of a steel-lead-steel annulus cask fabricated in the form of a right circular cylinder and three different types of inner containers. The shielded cask, closed at one end and a lid closure at the other, is 66.25 inches in diameter by 74.5 inches in height. The cask wall consists of a 3/8-inch inner steel shell, 3-3/4 inches of lead shielding, one inch outer steel shell, and a steel flange connecting the two shells. The cask outer shell is surrounded by a one inch layer of insulating material and canned in 14-gauge steel.

421 233 The lid, sealed by a Viton O-ring, is of similar construction and is bolted to the cask body. A cylindrical shield plug is located in the center of the cask lid and is sealed by a Viton O-ring. Lifting and tie-down devices are attached to the cask body and impact skirts, consisting of removable rings of shock absorbing foam, are attached to the ends of the cask.

(3) Drawings

The package is fabricated in accordance with the following Hittman Nuclear and Development Corp. Drawings Nos.: HN4301E200, Sheets 3 and 4, Rev. D; HN4301C202, Sheet 1, Rev. 0; HN4301C203, Sheet 1, Rev. 0; HN4301C204, Sheet 1, Rev. 0; and HN4301E200, Sheet 5, Rev. C.

5. (b) Contents

(1) Type and form of material

The package contents consist of large quantities of nonfissile radioactive wastes solids. These solids include spent ion exchange resins, filter sludges, evaporator concentrators and spent fuel cartridges.

(2) Maximum quantity of material per package

The cask contents shall be contained within one of the following inner containers and limited as follows:

- (a) A single disposable inner container consisting of a right circular steel cylinder with a positive leaktight closure cap at the top. A maximum decay heat load of 205 Btu/hr. The maximum loaded weight is 7,400 pounds.
- (b) The HN-200-30 inner configuration consists of two tiers of four, 30-gallon DOT Specification 17H steel drums and two steel four-drum pallets. A maximum decay heat load of 84 Btu/hr. The maximum loaded weight is 5,050 pounds.
- (c) The HN-200-55 inner configuration consists of one tier of three 55-gallon, DOT Specification 17H steel drums positioned on one steel pallet. A maximum decay heat load of 116 Btu/hr. The maximum load weight is 3,740 pounds.

- 6. The total weight of the shipping container shall not exceed 47,000 pounds.
- 7. Wooden battens shall be provided in the shipping cask cavity sufficient to prevent significant movement of the contents relative to the shield plug under normal or accident conditions.
- 8. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12(b).
- 9. Expiration date: September 30, 1979.

REFERENCES

Hittman Nuclear and Development Corporation application dated June 10, 1974.

Supplement dtd: July 2, 1979.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

*Charles E. MacDonald*

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

Date: JUL 10 1979

421 235