PDR 11-9081

UNION CARBIDE CORPORATION
MEDICAL PRODUCTS DIVISION
P.O. BOX 324, TUXEDO, NEW YORK 10987
TELEPHONE: 914-351-2131

59

POOR ORIGINAL

January 16, 1980

Mr. Charles E. MacDonald, Chief
Transportation Branch
Division of Fuel Cycle & Materials Safety
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subj: Request for Amendment to Certificate of Compliance 9081

Dear Mr. Maconald:

We hereby request that Certificate of Compliance 9081 for the Model CNS-1600 radioactive material shipping container be amended to authorize shipment of materials in a form traditionally used by Union Carbide Corporation - Medical Products Division. This form of packaging has already been approved for the GE-1600 shipping container which is virtually identical to the CNS-1600 except that it has a removable rather than integral heat shield.

We specifically request that the authorized contents of Certificate of Compliance 9081 be expanded by adding the following:

"5. (b) (iv) Byproduct material as solid, non-powder, and dry, which will not decompose at temperatures up to 500°F and packaged in accordance with Union Carbide Specification UCC-9081, Revision 0, dated Januaty 16, 1980. The thermal decay shall not exceed 400 watts."

The contents described above are equivalent to those already approved by Certificate of Compliance 9081. The proposed decay heat load is substantially less (400 vs. 600 watts). Likewise, the weight is substantially less (1000 vs. 5000 pounds). All material is in solid form. Containment is assured by the method of packaging: namely, encapsulating material in closed metal containers, material being in solid form, and being capped by concrete in a sealed drum meeting the requirements of a Specification 17H container. We, therefore, believe that while in a slightly different form, the proposed contents can be shipped with the same assurance of safety as the currently approved contents.

We, further, request that Condition 9 of Certificate of Compliance 9081 be changed to read as follows:

"9. For packaging of other than neutron sources, measurements shall be made to determine that the dose rate does not exceed the DOT requirements for shipment of radioactive material."

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As the license presently reads, Condition 9 could be either more or less restrictive than DOT requirements. There is no basis in the safety analysis for a criteria on external radiation level that differs from DOT requirements. Since DOT criteria apply to all radioactive shipments the requested change will result in uniformity and eliminate a potential area of confusion.

This request is made necessary by the delays resulting from the national radiactive waste disposal problem. Your rapid processing of this request will reduce the potential for curtailed production of critical medical radioisotopes. Your prompt attention will be truly appreciated.

Pursuant to 10 CFR 170.31.11.B, we are attaching a check in the amount of $2,800.00 for the amendment fee.

Also, pursuant to 10 CFR 71.12 (b) (1) (iii), we request that Union Carbide Corporation, Tuxedo, New York (license numbers R-81 and SNM-639) be registered as a user of Package Identification Number USA/9081/B ( ) F which is licensed under NRC Certificate of Compliance Number 9081.

Yours very truly,

Marcus H Voth

Marcus H. Voth
Manager
Nuclear Operations

MHV:ltm
Att: ($2800.00 check)

cc: Chem-Nuclear Systems, Inc.
Att: Mr. Louis E. Reynolds
P. O. Box 1866
Bellevue, WA 98009

UNION CARBIDE SPECIFICATION UCC-9081

Revision 0 - January 16, 1980

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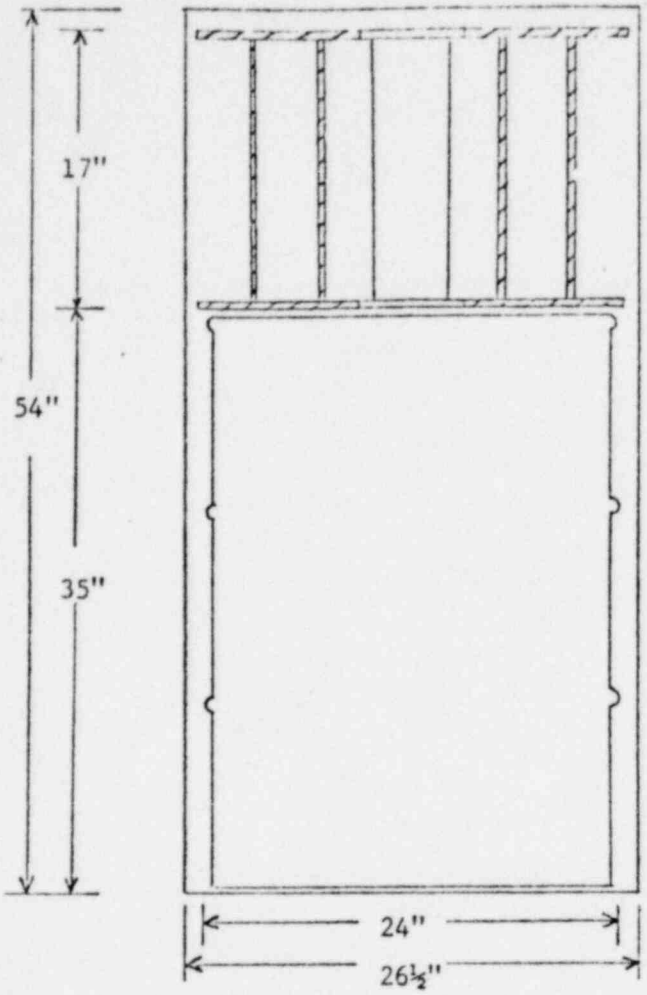

Cross-sectional view or each cavity showing radioactive material packaging and shoring

POOR ORIGINAL

1.0 CASK CONTENTS

1.1 Shoring - approximately 25½" dia. x 17" hi, placed either above or below the steel drum constructed of steel 3/16" plate and four 2½" O.D. schedule 40 pipe or equivalent.

1.2 Steel drum - meeting the requirements of a Specification 17H container.

1.3 Weight - maximum, 1000 lbs.; typical, 350 lbs.

2.0 DRUM CONTENTS

2.1 Byproduct material - Solid irradiated material (non-powder), primarily target capsules and byproduct material solidified in concrete inside closed metal containers.

2.2 Contaminated solids - Tools and equipment from hot cell operations.

3.0 DRUM PACKAGING

3.1 Radioactive contents (2.0 above) - Load in any order, contents not to be within 2" of tbe lid.

3.2 Concrete cap - Seal the top of the drum with a minimum of 1" of concrete, typically 2" to 3".

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"TRANSPORTATION APPROVALS"

Docket No. 71-0081

71-1244

William O. Miller
License Fee Management Branch
Office of Administration

MATERIALS TRANSPORTATION APPROVAL CLASSIFICATION

Applicant: Union Carbide

Approval No: 0081 Fee Category 11B

Application Dated: 1/16/80 Received: 1/22/80

Applicant's Classification: Minor

The above application for amendment has been reviewed by the NMSS Transportation Branch, in accordance with Section 170.31, and is classified as follows:

1. Amendments to Approvals in Fee Categories 11A through 11E

   (a) ___ Major

   (b) ✓ Minor

   (c) ___ Administrative

2. Justification for reclassification: _____

3. The application was filed (a) ___ pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or (b) ___ Other (State reason): _____

Signature: R. T. Register
Transportation Branch, NMSS
Date: 2-5-80