

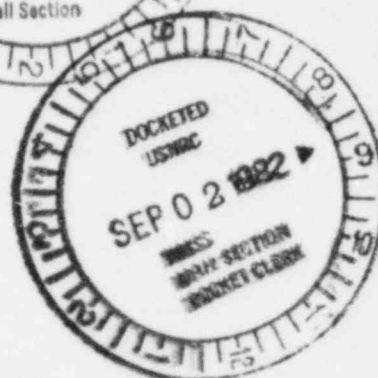


PDR -
Return 396-SS

71-9852

Department of Energy
Oak Ridge Operations
P.O. Box E
Oak Ridge, Tennessee 37830

August 26, 1982



U.S. Nuclear Regulatory Commission
ATTN: Mr. C. E. MacDonald, Chief
Transportation Certification Branch
Division of Fuel Cycle and Material
Safety, NMSS
Washington, DC 20555

Gentlemen:

DOCKET NO. 71-9852 (YOUR LETTER DATED 1/26/82)

On June 17, 1982, a three-way telephone conference call was conducted with Mr. Bill Lake of your staff; Mr. H. E. Crowder of Union Carbide - Nuclear Division, Oak Ridge Y-12 Plant; and Mr. W. A. Pryor of the DOE-ORO Safety and Environmental Control Division staff. During the conference call, the various questions generated by your staff were reviewed and mutually agreeable answers evolved.

The enclosed letter (10 copies) dated July 29, 1982, from G. G. Fee to H. D. Hickman summarizes the specific actions which will be incorporated into operating procedures for the DT-14 package. The DOE-ORO Safety and Environmental Control Division concurs in these actions.

Sincerely,

William H. Travis

William H. Travis, Director
Safety & Environmental Control Division

SE-332:WAP
FSS: 2321

Enclosure:
Ltr: 7/29/82
(10 Copies)

cc w/encl.:
V. J. D'Amico, SE-30
C. H. Durham, AD-46
R. P. Prichard, EP-322

FEE EXEMPT

2/191



UNION CARBIDE CORPORATION

NUCLEAR DIVISION

P. O. BOX Y, OAK RIDGE, TENNESSEE 37830

July 29, 1982

Department of Energy
Oak Ridge Operations
Attention: Mr. H. D. Hickman
Post Office Box E
Oak Ridge, Tennessee 37830

Gentlemen:

Safety Analysis Report for Packaging: Oak Ridge Y-12 Plant DT-14 Package for Enriched Uranium - Reports Y/DD-244 and Y/LA-810, Rev. 1

In response to your letter dated February 19, 1982, W. A. Pryor (ORO-DOE), J. E. Stokes and H. E. Crowder (UCC-ND, Y-12) met to determine the information needed for an adequate response to the letter from NRC. During the meeting on June 17, 1982, W. A. Pryor and H. E. Crowder made a three-way conference call to Mr. Bill Lake (NRC) to clarify the information needed to satisfy NRC requirements. The information furnished to NRC concerning the "Additional Testing of the DT-14 Shipping Container," Document Y/LA-810, was acceptable; however, the inner containment of material such as cans and polyethylene bottles was not addressed. As a result of the conference call, it was decided that the additional criteria for inner containment of polyethylene bottles and metal cans as described below, pending DOE and NRC approval, will be incorporated in the "Certificate of Compliance" issued by NRC.

Primary Containment of Materials

Metals or Solid Form

A metal can with a nominal wall thickness of 0.254 mm (10 mils), such as DOT Specification 2A or 2N, will be used for the initial packaging of U-235 in the solid form.

Powders

Powders will be packaged in a water-tight polyethylene bottle with a 1 mm minimum wall thickness. Before loading, the lid on the polyethylene bottle will be visibly inspected to ensure the gasket is present and functional. Each loaded polyethylene bottle will be inverted and hand-shaken; a smear will be taken and checked with an alpha detector to ensure non-leakage of the powder. After this verification, the lid will be sealed using pressure-sensitive tape.

July 29, 1982

Solutions

Solutions will be packaged in a new water-tight polyethylene bottle with a 1 mm minimum wall thickness. Before loading, the lid on the polyethylene bottle will be visibly inspected to ensure the gasket is present and functional. Each filled polyethylene bottle will be inverted and observed for five minutes. If no leakage is visible, a smear will be taken and checked with an alpha detector to ensure non-leakage of the solution. After this verification, the lid will be sealed using pressure-sensitive tape.

Additional clarification was discussed concerning the inner vessel of the DT-14 Package. The owner or user of a DT-14 Package will perform the following:

Inner Containment Vessel of DT-14 Package

1. Upon receipt and prior to the first use of each new DT-14 Package, the inner vessel will be leak tested to 1×10^{-7} atm. cc/sec. ANSI N14.5 establishes a leak rate of 1×10^{-7} atm. cc/sec. to be leak tight; therefore, no further containment criteria is needed to ensure no dispersibility or radiotoxicity.
2. Inner containment vessels will be leak tested to 1×10^{-7} atm. cc/sec. after the third usage, or one year from the last inspection date. Rejected vessels will be reworked and retested to conform to the same leak rate.

It is our understanding that these agreements will satisfy NRC requirements. Please advise us if any additional work is required.


Very truly yours,

Gordon G. Fee

Gordon G. Fee, Plant Manager
Oak Ridge Y-12 Plant

GGF:HEC:v1

Distribution:

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