

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
9853	7	USA/9853/B()F	1	3

2. PREAMBLE

- a. 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."
- b. 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

a. ISSUED TO (Name and Address)

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Oak Ridge National Laboratory
P.O. Box X
Oak Ridge, TN 37830

Safety Analysis Report for Packaging:
The Unirradiated Fuel Shipping Container,
as supplemented.

c. DOCKET NUMBER 71-9853

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.:

ORNL Unirradiated Fuel Shipping Container,
BNL Unirradiated Fuel Shipping Container, or
NBS Unirradiated Fuel Shipping Container.

(2) Description

A right cylindrical stainless steel drum enclosing a fuel basket provided with seven (7) cavities. The outer shell and lid are fabricated from eleven (11) gauge plate and the base is 1/4" thick plate. The outer lid is held in place by six (6), 5/8" bolts (stainless steel) and nuts (carbon steel). The basket is fabricated from eleven (11) gauge stainless steel plate. Eight (8), 3/8" bolts and nuts retain the basket lid (0.125" thick aluminum) in place.

The basket is supported on 2" by 6" timbers inside the outer shell. The remaining space around the basket is filled with phenolic foam insulation.

5. (a) Packaging (continued)

<u>Item</u>	<u>ORNL</u>	<u>BNL</u>	<u>NBS</u>
Outside dimension, in	24-1/2	24-1/2	26
Container length, in	56-5/8	75-1/2	87-1/8
Base, in	29 x 29	29 x 29	30-1/2 x 30-1/2
Inside cavity cross section, in	4 x 4	4 x 4	4-1/2 x 4-1/2
Gross weight, lb	580	700	850

(3) Drawings

The packaging is constructed in accordance ORNL Drawing Nos.:

ORNL Container - X3E-10191-002, Rev. B,
X3E-10191-003, Rev. B,
DS-XDE-10191-1, Rev. 1;

BNL Container - X3E-10191-010, Rev. B,
X3E-10191-011, Rev. B;
DS-XDE-10191-2, Rev. 1; or

NBS Container - X3E-10191-100, Rev. C,
X3E-10191-101, Rev. D,
DS-XDE-10191-3, Rev. 1.

(b) Contents

(1) Type and form of material

Unirradiated uranium fuel element enriched in the U-235 isotope composed of aluminum plates.

(2) Maximum quantity of material per package

ORNL-BNL Container -

Two (2) fuel elements containing 370 grams U-235 per fuel element.

NBS Container -

Two (2) fuel elements containing 370 grams U-235 per fuel element; or,
three (3) fuel elements containing 210 grams U-235 per fuel element.

(c) Fissile Class

III

Maximum number of packages per shipment

one (1)

CONDITIONS (continued)

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6. The fire resistant phenolic foam shall be in accordance with AEC Materials and Equipment Specification SP-9 or as modified by ORGDP Reports K/TL-729 and K/P-6567S.
7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
8. Expiration date: October 31, 1991.

REFERENCES

Safety Analysis Report for Packaging: The Unirradiated Fuel Shipping
ORNL/ENG/TM-15, September 1979.


Nuclear Criticality Safety Assessment of ORR, NBS, HFBR Fuel Element Shipping
Package, J. T. Thomas, ORNL/CDS/TM-77.

Union Carbide letter dated September 10, 1979.

ORNL letter dated September 18, 1979.

Department of Energy letters dated: November 1, 1979; February 21 and April 4,
1980; August 15, 1989; June 20 and October 19, 1990.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION


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

Date: NOV 28 1990



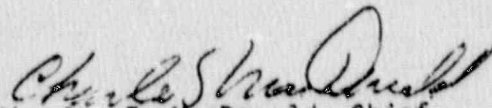
UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

APPROVAL RECORD

Model Nos. ORNL Unirradiated Fuel Shipping Container
BNL Unirradiated Fuel Shipping Container
MBS Unirradiated Fuel Shipping Container
Certificate of Compliance No. 9853
Revision No. 7

By letter dated October 19, 1990, the Department of Energy (DOE) informed the Nuclear Regulatory Commission (NRC) that based on preliminary analysis the package identification number, loading and fissile class for DOE Certificate of Compliance Number 9853 was changed.

The NRC has also issued a certificate of compliance for this package. The NRC certificate of compliance was issued based on the statements and representations of the DOE as well as a review by the NRC staff. The statements and representations of previous submittals are being questioned in the DOE review process. Accordingly, NRC certificate of compliance has been revised to restrict the loading to a subcritical mass of no more than 740 grams U-235 per package and one package per shipment. Since a revised safety analysis report for this package is still in preparation by DOE, the package identification number has not been changed.


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

Date: NOV 23 1990