Form NRC-618 (12-73) 10 CFR 71

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 5468 1 USA/5468/B()F 1 2

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): Nuclear Fuel Services, Inc. Erwin, TN 37650 3.(b) Title and identification of report or application:

Nuclear Fuel Services, Inc., application dated May 1, 1967, as supplemented.

3.(c) Docket No.

71-5468

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.: NFS-IX-A
 - (2) Description

Oak wood container 48" \times 62" \times 13-1/2" outside dimensions with an internal cavity 36" \times 50" \times 1-1/2" lined with 0.020" thick cadmium.

(3) Drawing

The NFS-IX-A package is constructed in accordance with Nuclear Fuel Services, Inc., Drawing No. RMP-481, Rev. B.

- (b) Contents
 - (1) Type and form of material

PuO₂-UO₂ ceramic fuel pellets enclosed in aluminum, stainless steel, or zirconium tubes which have been welded closed and tested to show leaktightness.

(2) Maximum quantity of material per package

Total contents not to exceed 350 pounds and for the following w/o PuO_2/UO_2 , the slab thickness must not exceed:

w/o PuO2*	Slab Thickness, Inches
100	0.60
90	0.67
80	0.75
70	0.86
60	0.94
50	1.05
40	1.12
30	1.20
20	1.26
<10	1.35

^{*}For UO, containing 1% U-235 or more, the U-235 must be considered as Pu in determining w/o PuO.

(c) Fissile Class

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- 6. Interal cavity of the shipping container must be filled with rubber or other packing material to maintain at least the specified slab thickness. Not more than 1/2-inch of elastic materials must be used for maintaining the slab thickness for fuel rods 1-inch diameter or less.
- 7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12(b).
- 8. Expiration Date: January 31, 1987.

REFERENCES

Nuclear Fuel Services, Inc., application dated May 1, 1967.

Supplement dated: May 26, 1967

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: JAN 07 1982

U.S. Nuclear Regulatory Commission
Transportation Certification Branch
Approval Record
Model No. NFS-1X-A
Docket No. 71-5468

By application dated December 3, 1981, Nuclear Fuel Services, Inc. requested renewal of Certificate of Compliance No. 5468. No changes have been requested or made to the package since approval of latest supplement dated May 26, 1977.

The staff concludes that the statements of the original application, as supplemented, satisfies the requirement for renewal of the Certificate of Compliance.

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

Date: JAN 07 1982