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
5492	3	USA/5492/AF	

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 CFF, 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. P.O. Box 218 Erwin, TN 37650		3.(b) Title and identification of report or application: Nuclear Fuel Services, Inc. application dated August 25, 1982, as supplemented.		
		3.(c) Docket No. 71-5492		

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 Mo.: RMG-181-I
  - (2) Description

The containment vessel is a 5-inch Schedule 40 steel pipe with ASA standard threaded pipe cap closure at both ends with the bottom cap welded to the pipe and contains sealed polyethlene bottles and/or sealed metal cans. The containment vessel is supported in a DOT Specification 17H steel drum as shown in Drawing No. RMG-181-I. Vermiculite is used to fill the entire void between the containment vessel and outer container; 1/8" asbestos sheet is placed between both ends of the containment vessel and outer container; three inches of vermiculite are located in bottom and top of containment vessel.

(3) Drawing

The packaging is constructed in accordance with Nuclear Fuel Services, Inc. Drawing No. RMG-181-I, dated November 22, 1982. Page 2 - Certificate No. 5492 - Revision No. 3 - Docket No. 71-5492

## 5. (b) Contents

1

- (1) Type and form of material
  - (i) Uranium or any uranium compound or solution, any U-235 enrichment.
  - (ii) U-235 as metal or oxide, or as compounds or alloys having a maximum n/U-235 ratio of 3 considering all sources of hydrogen within the inner container.
- (2) Maximum quantity of material per package
  - (i) For the contents described in 5(b)(1)(i):

Ten kilcgrams U-235 contained in a maximum of 100 pounds of material.

(ii) For the contents described in 5(b)(1)(ii):

Fourteen kilograms U-235 contained in a maximum of 100 pounds of material.

5. (c) Fissile Class

II and III

1

1

 Minimum transport index to be shown on label for Class II

> For the contents described in 5(b)(1)(ii) and limited in 5(b)(2)(ii): 1.3

(2) Maximum number of packages per shipment for Class III

> For the contents described in 5(b)(1)(i) and limited in 5(b)(2)(i):

Eighteen (18)

6. A minimum 1-inch thick by 4-3/4-inch diameter wood block must be inserted at each end of the containment vessel so that the contents are between the wood blocks. The specified thickness of vermiculite required at each end of the containment vessel may be reduced by an amount equal to the thickness of each wood block. Page 3 - Certificate No. 5492 - Revision No. 3 - Docket No. 71-5492

- The package authorized by this certificate is hereby approved for use under the 7. general license provisions of 10 CFR §71.12(b).
- 8. Expiration date: January 31, 1988.

## REFERENCES

Nuclear Fuel Services, Inc application dated August 25, 1982. Supplement dated: December 10, 1982.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

JAN 1 0 1983

Date:

1

U.S. Nuclear Regulatory Commission Transportation Certification Branch Approval Record Model No. RMB-181-1 Docket No. 71-5492

By application dated August 25, 1982, as supplemented December 10, 1982, Nuclear Fuel Services, Inc. requested renewal of Certificate of Compliance No. 5492. A consolidated application was submitted which incorporated all supplemental information previously referenced by the Certificate of Compliance.

A review of the consolidated application confirmed that all appropriate supplement information has been incorporated. The applicant has deleted plutonium metal, oxide, alloys or compounds from the list of contents and the Certificate of Compliance has been revised accordingly.

The staff concludes that the consolidated safety analysis report satisfies the requirement for renewal of the Certificate of Compliance.

Churle Steel

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

Date: JAN 10 1983