NRC FORM 618
(8-2000)
10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES

1 a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
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2. PREAMBLE

a. This certificate is issued to certify that the package (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)*

National Institute of Standards and Technology
Gaithersburg, MD 20899

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

National Institute of Standards and Technology application dated October 17, 2011.

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.: ST

(2) Description

A closed steel pipe for the transport of an unirradiated research reactor fuel element. The pipe is a 5-1/2-inch OD carbon steel pipe, approximately 71 inches in length, with a closed bottom end and flanged top end. The top end is closed by a cover plate, which is 1/4-inch thick, and 6-1/2 inches in diameter, and a gasket. The cover plate is secured to the pipe flange by 8 cap screws. A wooden nozzle support, bottom support, and top support position the fuel element within the pipe. The package weighs approximately 75 pounds, including the fuel element.

(3) Drawing

The packaging is constructed and assembled in accordance with National Institute of Standards and Technology Drawing No. D-04-048, Sheet 1, Rev. 4, and Sheet 2, Rev. 4.

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5. (b) Contents

(1) Type and form of material

Unirradiated NBSR fuel element composed of enriched uranium and aluminum.

(2) Maximum quantity of material per package

One fuel element containing not more than 360 grams U-235. The total quantity of radioactive material within a package may not exceed a Type A quantity.

(c) Criticality Safety Index
50.0

6. In addition to the requirements of Subpart G of 10 CFR Part 71, the package shall be prepared for shipment, operated, and maintained by written procedures prepared to meet the requirements and make the determinations specified in Chapter 7 of the package application. Additionally, the acceptance tests and maintenance program shall comply with Chapter 8 of the application.

7. Transport by air is not authorized.

8. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.

9. Fabrication of new packages is not authorized.

10. Expiration date: February 28, 2027.

REFERENCES

National Institute of Standards and Technology application dated October 17, 2011, supplement dated December 13, 2016.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Yoira K. Diaz-Sanabria Signed by Diaz-Sanabria, Yoira
on 02/14/22

Yoira K. Diaz-Sanabria, Chief
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Date: February 14, 2022

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT

Docket No. 71-9246
Model No. ST
Certificate of Compliance No. 9246
Revision No. 10

SUMMARY

By application dated December 15, 2021, National Institute of Standards and Technology (NIST) requested renewal of Certificate of Compliance No. 9246 for the Model No. ST shipping package. NIST did not request any changes to the package design or authorized contents. The certificate has been renewed for a five year term.

CONCLUSION

By application dated December 15, 2021, NIST requested renewal of Certificate of Compliance No. 9246 for the Model No. ST shipping package. NIST did not request any changes to the package design or authorized contents. The staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete. The staff also reviewed the operating and maintenance procedures for the package and found them to be adequate. Staff added a new Condition 9 stating that new packages may not be fabricated because the package design was approved prior to implementation of the 1985 regulatory requirements. Staff also renumbered subsequent conditions. In addition, the certificate of compliance is revised to update the revision number, remove unnecessary change bars, and make editorial changes.

The certificate has been renewed for a five year term that expires on February 28, 2027. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9246, Revision No. 10, on February 14, 2022.