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
	9034	16	71-9034	USA/9034/AF	1	OF	3

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)

General Atomics P.O. Box 85608 San Diego, CA 92186-5608 b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION
 General Atomics application dated October 4,
 1995, as supplemented.

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.: TRIGA-I

(2) Description

TRIGA fuel element shipping container. The outer packaging is a steel drum, approximately 22.5 inches in diameter by 39-1/4 inches high. The inner vessel is a 5-inch Schedule 40 carbon steel pipe. Dimensions of the inner vessel are approximately 31 inches in height with a 1/4-inch thick wall and a 5-inch inside diameter. The top of the inner vessel is a threaded pipe cap and the bottom is a welded 1/4-inch thick flat disc. The inner vessel is centered and supported within the outer packaging by eight, 3/8-inch diameter braced, support spacer rods. The void between the inner vessel and the outer packaging is filled with vermiculite tamped to a minimum density of 4.5 lbs/ft³. Maximum gross weight including contents is approximately 235 pounds.

(3) Drawing

The packaging is constructed in accordance with General Atomic Company Drawing No. TOS396C160, Rev. G.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES b. REVISION NUMBER a. CERTIFICATE NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE PAGES 9034 71-9034 USA/9034/AF 2 OF 3 16

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

TRIGA fuel elements containing uranium-zirconium-hydride or erbium-uranium-zirconium-hydride with nominal fuel composition (excluding erbium content) as described in Table A.1-1 of the October 4, 1995, application, and clad with stainless steel, aluminum or incoloy. Uranium enriched to a maximum 93.5 w/o in the U-235 isotope. The Hydrogen to Zirconium atomic ratio within the fuel meat must not exceed 1.65.

(2) Maximum quantity of material per package

U-235 content not to exceed 1.39 kg, contained in a maximum of 7 1.5-inch diameter fuel elements, or a maximum of 25 0.5-inch diameter fuel elements, with nominal fuel composition (excluding erbium content) as described in Table A.1-2 (Rev. 1) of the October 4, 1995, application. For enrichments greater than 5 weight percent U-235, uranium content not to exceed an A_2 quantity.

(c) Criticality Safety Index

- 0.4
- 6. In addition to the requirements of Subpart G of 10 CFR Part 71:
 - (a) The package shall be prepared for shipment and operated in accordance with the Operating Procedures of Chapter 8 of the application.
 - (b) The packaging must meet the Acceptance Tests and Maintenance Program of Chapter 9 of the application.
- 7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
- 8. Expiration date: March 31, 2026.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES b. REVISION NUMBER a. CERTIFICATE NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE PAGES OF 9034 71-9034 USA/9034/AF 3 3 16

REFERENCES

General Atomic Company application dated October 4, 1995.

Supplements dated: December 5, 1995, October 16, 2000, November 16, 2005, November 22, 2010, November 20, 2015, and February 19, 2021.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Norma Garcia Santos

Digitally signed by Norma Garcia

Santos

Date: 2021.03.29 17:20:25 -04'00'

Norma Garcia Santos, Acting Chief Storage and Transportation Licensing Branch Division of Fuel Management Office of Nuclear Material Safety and Safeguards

Date: 3/29/2021



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT
Docket No. 71-9034
Model No. TRIGA-I Package
Certificate of Compliance No. 9034
Revision No. 16

SUMMARY

By application dated February 19, 2021, General Atomics (the applicant) requested the renewal of Certificate of Compliance (CoC) No. 9034, for the Model No. TRIGA-I package. General Atomics did not request any changes to the package design or authorized contents. The certificate has been renewed for a five year term.

EVALUATION

By application dated February 19, 2021, General Atomics requested renewal of CoC No. 9034, for the Model No. TRIGA-I package. General Atomics 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.

The following changes have been made to the certificate:

Condition No. 8, was revised to expire on March 31, 2026.

The References Section of the CoC was revised to include the date of the renewal request letter dated February 19, 2021.

CONCLUSION

The CoC has been renewed for a five year term that expires on March 31, 2026. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with CoC No. 9034, Revision No. 16. on March 29, 2021.