

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9217	19	71-9217	USA/9217/AF	1 OF	5

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 (<i>Name and Address</i>)
TN Americas LLC
7135 Minstrel Way, Suite 300
Columbia, MD 21045 | b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION
Siemens Power Corporation application
dated January 26, 2000, 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.: ANF-250
- (2) Description

A uranium oxide powder/pellet shipping container. The packaging consists of a 16-gauge steel inner vessel, approximately 11-1/2 inches ID by 57 inches long, with a bolted and gasketed top flange closure and steel welded bottom plate. The inner vessel is centered and supported in a 22-1/2-inch ID by 68-3/8-inch long, 16-gauge steel drum by twelve 1/4-inch diameter spring steel rods welded to the inner vessel at the top and the bottom of the vessel. A 3/8-inch thick steel flange and a 16-gauge inner band position and support the top of the inner vessel within the outer container. The annulus between the inner vessel and outer container is filled with vermiculite.

The inner vessel is closed by six 1/2-inch square shank studs with hex head nuts at each end. The outer container is closed with a 12-gauge locking ring with drop forged lugs and a 5/8-inch diameter bolt and lock nut. A "half circle" ("U") type closure ring is used. A product container insert is positioned within the inner vessel.

The maximum gross weight of the packaging and contents is 616 pounds.

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9217	19	71-9217	USA/9217/AF	2 OF	5

5.(a) (3) Drawings

- (i) The ANF-250 shipping container is constructed in accordance with Siemens Power Corporation Drawing No. EMF-306,175, Rev. 16.
- (ii) The pellet shipping suit case is constructed in accordance with Siemens Power Corporation Drawing No. EMF-304,306, Rev. 8.
- (iii) The powder and pellet product container inserts are constructed in accordance with Siemens Power Corporation Drawing No. EMF-306,176, Rev. 6, Sheets 1 and 2.

(b) Contents

(1) Type and form of material

- (i) Dry uranium oxide powder enriched to a maximum 5.0 w/o in the U-235 isotope with or without burnable absorbers.
- (ii) Dry uranium oxide pellets enriched to a maximum 5.0 w/o in the U-235 isotope with or without burnable absorbers.
- (iii) Dry uranium oxide pellet scrap enriched to a maximum 5.0 w/o in the U-235 isotope with or without burnable absorbers.
- (iv) Uranium oxide pellets enriched to a maximum of 1 w/o in the U-235 isotope with or without burnable absorbers.
- (v) Uranium oxide pellet scrap enriched to a maximum of 1 w/o in the U-235 isotope with or without burnable absorbers.
- (vi) Uranium oxide powder enriched to a maximum of 1 w/o in the U-235 isotope with or without burnable absorbers.

(2) Maximum quantity of material per package

Not to exceed 310 pounds and:

- (i) For the contents described in 5(b)(1)(i):

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9217	19	71-9217	USA/9217/AF	3 OF	5

5.(b)(2)(i) (continued)

The contents not to exceed the following:

<u>Maximum Enrichment (wt% U-235)</u>	<u>Maximum Uranium Mass (kg U)</u>	<u>Maximum U-235 Mass (kg U-235)</u>
3.4	62.4	2.12
3.8	41.0	1.56
4.6	31.2	1.44
5.0	27.7	1.38

Not to exceed a maximum mass of 1149 g H, considering all sources of hydrogenous material within the inner vessel. The contents must be contained in product container described in 5(a)(3)(iii).

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

The total contents not to exceed 120 kg U, with the U-235 content not to exceed 6 kg. Not to exceed a maximum mass of 1149 g H, including a maximum mass of 600 g polyethylene, considering all sources of hydrogenous material within the inner vessel. The contents must be contained in product container described in 5(a)(3)(ii).

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

The total contents not to exceed 61.7 kg U, with the U-235 content not to exceed 3.08 kg. Not to exceed a maximum mass of 1149 g H, including a maximum mass of 600 g polyethylene, considering all sources of hydrogenous material within the inner vessel. The contents must be contained in product container described in 5(a)(3)(ii).

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

The total contents not to exceed 120 kg U, with the U-235 content not to exceed 1.2 kg. The contents must be contained in product container described in 5(a)(3)(ii).

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

The total contents not to exceed 120 kg U, with the U-235 content not to exceed 1.2 kg. The contents must be contained in product container described in 5(a)(3)(ii).

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

The total contents not to exceed 120 kg U, with the U-235 content not to exceed 1.2 kg. The contents must be contained in product container described in 5(a)(3)(iii).

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9217	19	71-9217	USA/9217/AF	4 OF	5

5.(c) Criticality Safety Index

Minimum criticality safety index to be shown on label for nuclear criticality control:

For contents described in 5(b)(1)(i) and limited in 5(b)(2)(i): 1.8

For contents described in 5(b)(1)(ii) and 5(b)(1)(iii), and limited in 5(b)(2)(ii) and 5(b)(2)(iii): 0.9

For contents described in 5(b)(1)(iv), 5(b)(1)(v) and 5(b)(1)(vi), and limited in 5(b)(2)(iv), 5(b)(2)(v) and 5(b)(2)(vi): 0.4

6. In addition to the requirements of Subpart G of 10 CFR Part 71:

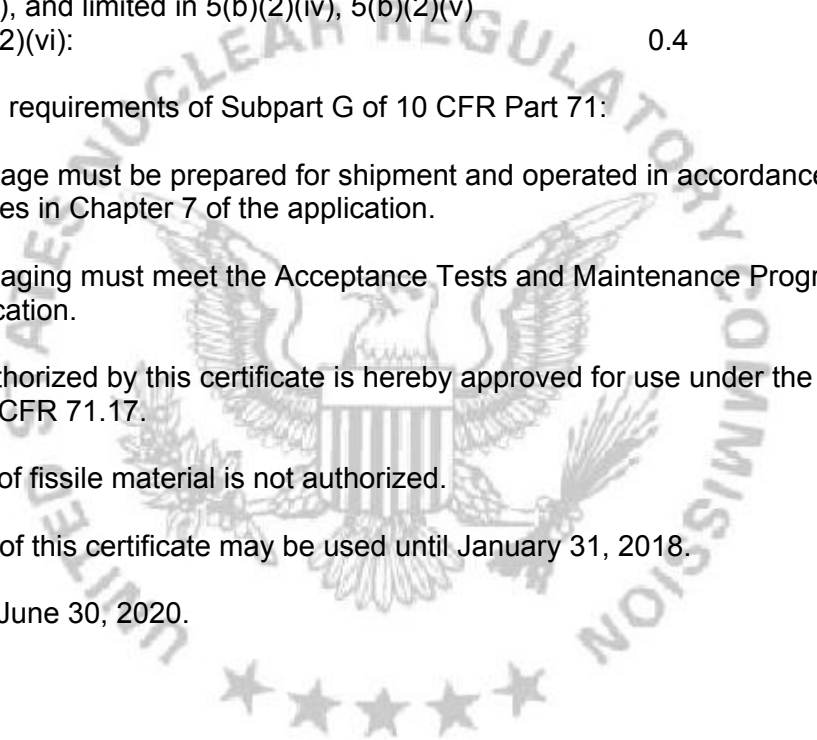
- a. The package must be prepared for shipment and operated in accordance with the Operating Procedures in Chapter 7 of the application.
- b. The packaging must meet the Acceptance Tests and Maintenance Program in Chapter 8 of the application.

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

8. Transport by air of fissile material is not authorized.

9. Revision No. 18 of this certificate may be used until January 31, 2018.

10. Expiration date: June 30, 2020.



**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIAL PACKAGES**

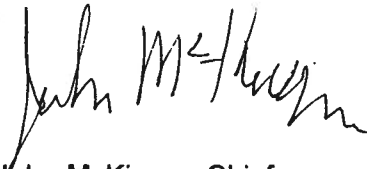
1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9217	19	71-9217	USA/9217/AF	5 OF	5

REFERENCES

Siemens Power Corporation application dated January 26, 2000.

Supplements dated: January 31, June 6, June 15 and September 29, 2000; February 6 and August 21, 2001; December 16, 2004; November 25, 2009; December 21, 2009; December 23, 2009; April 8, 2010; January 27, 2014; May 19, 2015; and November 18, 2016.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



John McKirgan, Chief
Spent Fuel Licensing Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

Date: 1/30/17



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

SAFETY EVALUATION REPORT
Docket No. 71-9217
Model No. ANF-250
Certificate of Compliance No. 9217
Revision No. 19

SUMMARY

By letter dated November 18, 2016, TN Americas LLC requested an amendment to Certificate of Compliance (CoC) No. 9217 for the Model No. ANF-250 transportation package. The letter requested name changes on certain certificates of compliance due to corporate reorganization. The certificate has been updated to Revision No. 19 to reflect the changes.

EVALUATION

The purpose of the amendment was to change the name of the entity the certificate of compliance is issued to from "AREVA Inc." to the new name "TN Americas LLC." TN Americas LLC also submitted a description of its Quality Assurance Program Description Manual, Revision No. 15, for which Quality Assurance Program Approval for Radioactive Material Packages No. 0250, Revision No. 22, was issued by NRC on December 13, 2016. Certificate of Compliance No. 9217, Revision No. 19, is being issued under this Quality Assurance Program Approval.

These changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

CONDITIONS

The following changes have been made to the certificate of compliance:

Section 3.a. of the certificate of compliance has been revised to reflect the new name of the certificate holder, as requested.

Condition No. 9 now allows use of Revision 18 of the certificate until January 31, 2018.

The References section has been updated to include the name change request.

CONCLUSIONS

Based on the statements and representations in the renewal request, the staff finds that any changes had been made and the package meets the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9217, Revision No. 19 on January 30, 2017