



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

COMPETENT AUTHORITY CERTIFICATION  
FOR A TYPE FISSILE  
RADIOACTIVE MATERIALS PACKAGE DESIGN  
CERTIFICATE USA/9328/AF-96, REVISION 1

East Building, PHH-23  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

This certifies that the radioactive material package design described has been certified by the Competent Authority of the United States as meeting the regulatory requirements for a Type AF packaging for fissile radioactive material as prescribed in the regulations of the International Atomic Energy Agency<sup>1</sup> and the United States of America<sup>2</sup>.

1. Package Identification - TN-55.
2. Package Description and Authorized Radioactive Contents - as described in U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9328, Revision 3 (attached).
3. Criticality - The minimum criticality safety index is 1.7. The maximum number of packages per conveyance is determined in accordance with Table X of the IAEA regulations cited in this certificate.
4. General Conditions -
  - a. Each user of this certificate must have in his possession a copy of this certificate and all documents necessary to properly prepare the package for transportation. The user shall prepare the package for shipment in accordance with the documentation and applicable regulations.
  - b. Each user of this certificate, other than the original petitioner, shall register his identity in writing to the Office of Hazardous Materials Technology, (PHH-23), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington D.C. 20590-0001.
  - c. This certificate does not relieve any consignor or carrier from compliance with any requirement of the Government of any country through or into which the package is to be transported.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

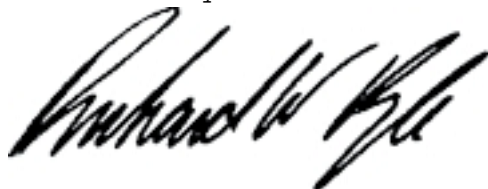
<sup>2</sup> Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

**CERTIFICATE USA/9328/AF-96, REVISION 1**

- d. Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
5. Special Condition - Transport by air is not authorized.
6. Marking and Labeling - The package shall bear the marking USA/9328/AF-96 in addition to other required markings and labeling.
7. Expiration Date - This certificate expires on April 30, 2012. On December 31, 2008, this certificate supersedes all previous revisions of USA/9328/AF-96.

This certificate is issued in accordance with paragraph 814 of the IAEA Regulations and Section 173.471 and 173.472 of Title 49 of the Code of Federal Regulations, in response to the October 03, 2008 petition by Areva, Lynchburg, VA, and in consideration of other information on file in this Office.

Certified By:



Robert A. Richard  
Deputy Associate Administrator for Hazardous Materials Safety

**Nov 06 2008**  
(DATE)

Revision 1 - Issued to endorse U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9328, Revision 3.

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

1 a. CERTIFICATE NUMBER 9328	b. REVISION NUMBER 3	c. DOCKET NUMBER 71-9328	d. PACKAGE IDENTIFICATION NUMBER USA/9328/AF-96	PAGE 1	PAGES OF 3
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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

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*)  
AREVA Federal Services LLC  
1102 Broadway Plaza, Suite 300  
Tacoma, WA 98402-3526
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
Packaging Technology, Inc., application dated August 28, 2006, 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.: TN-55

(2) Description

The Model No. TN-55 packaging is designed to transport uranium oxide powder. The packaging consists of a 55-gallon drum within an overpack. The uranium oxide powder is transported inside the drum. The 55-gallon drum is a DOT specification 7A Type A drum with a reinforced closure system and ceramic gasket. The overpack for the drum has an outer surface of nominal 18-gauge galvanized carbon steel, and a reinforced fiberglass liner. The void space between the liner and outer surface is filled with a polyurethane foam. Forklift pockets, made of 12-gauge galvanized carbon steel, are located on the bottom of the overpack. The nominal outside dimensions of the overpack are 32 inch diameter and 51-5/8 inch height. The maximum gross weight of the package is 1,010 pounds.

(3) Drawing

The packaging shall be constructed and assembled in accordance with Areva Drawing No. 60699-SAR, Revision No. 1, sheets 1 through 4.

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b. Contents (continued)

(1) Type and Form of Material

Unirradiated uranium oxide powder with a maximum moisture content of 2 percent. The maximum enrichment is 1.2 weight percent u-235. The content may be packaged in plastic packaging or with other plastic material within the 55-gallon drum, provided the total plastic per drum does not exceed 1,307 grams water-hydrogen equivalent or (1,000 grams of polyethylene). Materials with a hydrogen density greater than water are not authorized, with the exception of polyethylene.

(2) Maximum Quantity of Material per Package

Up to 650 pounds (295 kilograms) of unirradiated uranium oxide powder per package.

c. Criticality Safety Index: 1.7

6. Transport by air is not authorized.

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

a. Each package shall be prepared for shipment and operated in accordance with the "Package Operations," in Chapter 7 of the application.

b. Each packaging shall be tested and maintained in accordance with the "Acceptance Tests and Maintenance Program," in Chapter 8 of the application.

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

9. Revision No. 2 of this certificate may be used until December 31, 2008.

10. Expiration date: April 30, 2012.

**CERTIFICATE OF COMPLIANCE  
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REFERENCES

Packaging Technology, Inc., application dated August 28, 2006.

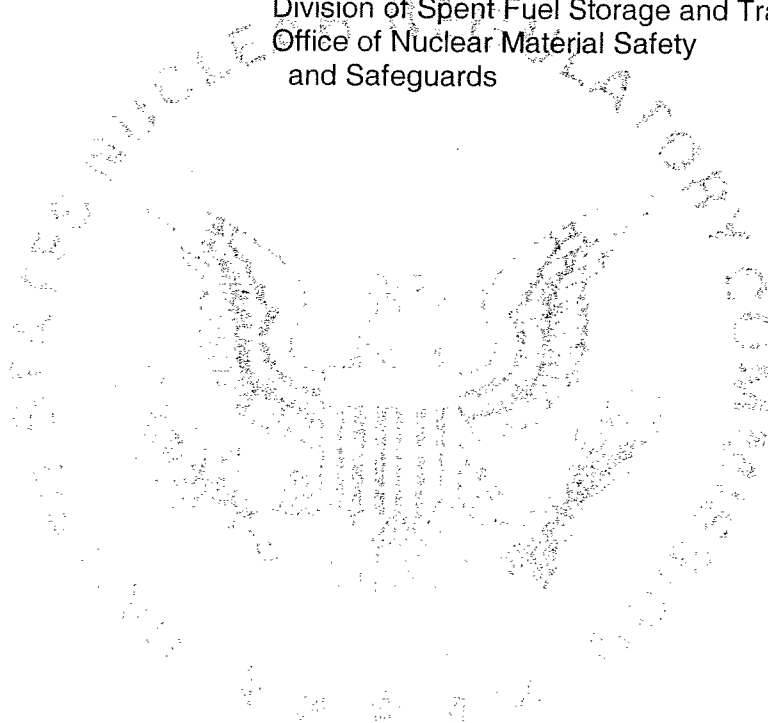
Supplement dated: January 31, 2007, and November 26, 2007.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Robert A. Nelson, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Date: January 1, 2008





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

**SAFETY EVALUATION REPORT**

**Docket No. 71-9328**  
**Model No. TN-55**  
**Certificate of Compliance No. 9328**  
**Revision No. 3**

**SUMMARY**

By application dated November 26, 2007, Packaging Technology, Inc., and AREVA Federal Systems, LLC, jointly requested an amendment to Certificate of Compliance (CoC) No. 9328, for the Model No. TN-55 transportation package. The applicants requested that this CoC be transferred from Packaging Technology, Inc., to AREVA Federal Services, LLC, effective January 1, 2008.

**EVALUATION**

By application dated November 26, 2007, Packaging Technology, Inc., and AREVA Federal Systems, LLC (hereinafter, AREVA), jointly requested that CoC No. 9328 for the Model No. TN-55 transportation package be transferred from Packaging Technology, Inc., to AREVA effective January 1, 2008. The applicants stated that Packaging Technology will commence doing business as AREVA on that date. AREVA stated that it accepts responsibility for the completeness and accuracy of the statements and representations in the safety analysis report (SAR) for this docket. In addition, AREVA stated that it will maintain the CoC, SAR, and, in cases where packages have been fabricated, the quality assurance records. The staff has verified that AREVA received Quality Assurance Program Approval No. 0938, Rev 0, on October 11, 2007, as stated in its application. Therefore, the name in paragraph 3.a of the CoC was changed as requested.

The certificate was revised to include Condition No. 9 which authorizes use of the previous revision of the certificate for a period of approximately one year.

**CONCLUSION**

The CoC has been revised to state that the CoC holder is AREVA Federal Services, LLC. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with CoC No. 9328, Rev. 3 on January 1, 2008



U.S. Department  
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East Building, PHH-23  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

**CERTIFICATE NUMBER:** USA/9328/AF-96, Revision 1

**ORIGINAL REGISTRANT(S):**

Richard Montgomery  
Nuclear Criticality Safety & Shipping Containers  
Areva  
1724 Mount Athos Road  
P.O. Box 11646  
Lynchburg, VA 24506-1646

Ms. Catherine Anne  
Director of Transport Operations  
Areva  
7135 Minstrel Way  
Suite 300  
Columbia, 21045  
USA

Mr. Jim Davis  
Areva  
2101 Horn Rapids Road  
Richland, WA 99352

Mr. Charlie Holman  
Areva  
P.O. Box 11646  
Lynchburg, VA 24506-1646

Ralf Witten  
Areva  
Abteilung ANF-LP  
Advanced Nuclear Fuels GmbH  
Postfach 1485  
Lingen, Niedersachsen 49784  
Germany

**REGISTERED USER(S):**

Mr. Rick Migliore  
Packaging Technology, Inc.  
1102 Broadway Plaza  
Suite 300  
Tacoma, 98402  
USA

Mr. Fred Yapuncich  
Packaging Technology, Inc.  
1102 Broadway Plaza  
Suite 300  
Tacoma, 98402-3526  
USA