

**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*)  
AREVA Federal Services, LLC  
505 S. 336<sup>th</sup> Street, Suite 400  
Federal Way, WA 98003
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
Packaging Technology, Inc., application dated  
November 18, 1998, 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.: SteriGenics Eagle
- (2) Description

A stainless steel, lead shielded shipping cask for special form cobalt-60 sealed sources. The package consists of a cylindrical cask body with closure lid, and removable toroidal impact limiters, and a basket that carries and positions the cobalt-60 sealed source capsules. The packaging is constructed primarily of ASTM Type 304 stainless steel. The package is designed to transport up to 330,000 curies of cobalt-60.

The outside diameter of the cask body is approximately 37-11/16 inches. The diameter of the inner cavity is approximately 10-3/4 inches. The stainless steel inner shell has a minimum thickness of 1 inch and the stainless steel outer shell is 1 inch thick. The region between the two shells is filled with lead shielding. The closure lid and cask bottom end each consist of two stainless steel plates with lead between the two plates. The lead shielding thickness is approximately 10-3/8 inches on the side, 14-3/8 inches in the closure lid, and 11-7/8 inches on the cask bottom. The closure lid is secured by 12, 3/4-inch bolts. The closure lid is equipped with a Viton O-ring seal. The lid has a drain port and a vent port, and the cask body has a drain port. Each port is closed by a plug.

A double stainless steel thermal radiation shield is provided on the outside of the cask body in the region between the two impact limiters. The inner thermal shield is about 3/4-inches

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5.(a) (2) Description (continued)

thick and is radially separated from the cask outer shell by 12 gauge spacers at each end. The outer shield is a sheet of 10 gauge material separated from the inner shield by a spiral wrap of 12 gauge wire.

The top and bottom impact limiters are toroidal stainless steel shells. They are attached to either end of the cask body using 12, 1-inch diameter ball-lock pins orientated radially around the cask body. One pin on each limiter is installed with a lockwire to provide a tamper-indicating device.

The cask lifting attachments thread into the upper cask body. The cask lid is also equipped with removable lid-lifting attachments. The cask rests on a steel pallet and is held down to the pallet by means of a steel frame placed on the top impact limiter. This steel frame is used to tie the cask to the conveyance. The maximum weight of the package, including contents is 20,000 lbs.

The approximate dimension and weights of the package are as follows:

Cask Body Outer Diameter	37-11/16 inches
Cask Body Height	49-7/8 inches
Cask Cavity Inner Diameter	10-3/4 inches
Cask Cavity Inner Height	19 inches
Lead Shield Sidewall Thickness	10-3/8 inches
Overall Package Dimension	
Diameter at Impact Limiters	60 inches
Diameter at Body	37-11/16 inches
Height with Impact Limiters	76 inches
Maximum Contents Weight	50 pounds
Maximum Package Weight (Including Contents)	20,000 pounds

(3) Drawings

The packaging is constructed and assembled in accordance with Packaging Technology, Incorporated, Drawing No. 98003-SAR, Rev.1, Sheets 1 through 8.

(b) Contents

(1) Type and form of material

Cobalt-60 as sealed sources that meet the requirements of special form radioactive material.

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5.(b) (2) Maximum quantity of material per package:

12,210 terabecquerels (330,000 curies).

Not to exceed 680.8 terabecquerels (18,400 curies) per special form source.

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 in Chapter 7.0 of the application, as supplemented.

(b) Each packaging must meet the Acceptance Tests and Maintenance Program of Chapter 8.0 of the application, as supplemented.

7. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.17, provided the fabrication of the package was satisfactorily completed by December 31, 2006.

8. Expiration date: January 31, 2020.

REFERENCES

Packaging Technology, Inc., application dated November 18, 1998.

Supplements dated: August 20, 1999; November 29, 2004; November 26, 2007; November 12, 2009; October 31, 2011; and November 20, 2014.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Michele Sampson, Chief  
Spent Fuel Licensing Branch  
Division of Spent Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

Date: *January 20, 2015*



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

**SAFETY EVALUATION REPORT  
Docket No. 71-9287  
Model No. SteriGenics Eagle Package  
Certificate of Compliance No. 9287  
Revision No. 5**

**SUMMARY**

By the application dated November 20, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession Number No. ML14337A035), AREVA Federal Services LLC (certificate holder) requested renewal of Certificate of Compliance No. 9287 for the Model No. SteriGenics Eagle package. The certificate holder did not request any changes to the package design or the safety analysis report. The certificate has been renewed for an additional five year term expiring on January 31, 2020.

**EVALUATION**

By the letter dated November 20, 2014, AREVA Federal Services LLC requested renewal of Certificate of Compliance No. 9287, for the Model No. SteriGenics Eagle package. AREVA Federal Services LLC did not request any changes to the package design, authorized contents, operating procedures, acceptance tests, or maintenance program of the package. The packaging has never been manufactured. The applicant made it clear that AREVA Federal Services LLC will apply to the Nuclear Regulatory Commission for an updated '-96' certificate prior to manufacturing the packaging.

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 modified to change the expiration date to January 31, 2020.

**CONCLUSION**

The certificate has been renewed for a five year term. These changes do not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9287, Revision No. 5,  
on January 20, 2015.