

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

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*)  
Source Production and  
Equipment Company, Inc.  
113 Teal Street  
St. Rose, LA 70087
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
Source Production and Equipment Company, Inc.  
application dated March 24, 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.: SPEC 2-T
- (2) Description

A steel encased, uranium shielded Gamma Ray Projector. Primary components consist of an outer steel shell, internal bracing, depleted uranium shield, and a Zircalloy "S" tube. The contents are securely positioned in the Zircalloy "S" tube by a source cable locking device and shipping plug. The unit resembles a rectangular box approximately 13-3/8" long by 4-11/16" high by 4-3/8" wide with a maximum gross weight of 56 pounds.

(3) Drawings

The packaging is constructed in accordance with Source Production and Equipment Company, Inc. Drawing Nos. 12688-1, Rev. (2); 788-1, Rev. (4); and 788-2, Rev. (0).

The packaging may also be as shown in Source Production and Equipment Company Drawing No. 1000, Rev. (0), provided fabrication was completed prior to June 8, 1989.

The overpack is a 12 gallon open head 20 or 22 gauge National Motor Freight Classification 100-H, or succeeding issues, Item 260 steel drum constructed in accordance with Source Production and Equipment Company, Inc. Drawing No. 53189-2, Rev. (2).

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## 5.(b) Contents

## (1) Type and form of material

Iridium 192 as sealed sources which meet the requirements of special form radioactive material.

## (2) Maximum quantity of material per package

225 curies (8.3 TBq) (output)

Output curies are determined by measuring the source output at 1 meter and expressing its activity in curies derived from the following: 0.48 R/(h-Ci) Iridium-192.

6. The source must be secured in the shielded position of the packaging by the shipping plug, source assembly, and locking device. The shipping plug and source assembly used must be fabricated of materials capable of resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The source assembly ball stop must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
7. The nameplates must be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
8. For transportation of more than 1.7 TBq (45 curies) (output) per package in private carriage the shipment must be in accordance with 49 CFR 173.441(b).
9. For transportation of more than 1.7 TBq (45 curies) (output) per package by a common carrier, the package must be within a protective overpack as described and constructed in accordance with 5(a)(3).
10. 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 Section 7.0 of the application, as supplemented; and
  - (b) The package shall be maintained in accordance with the Maintenance Program of Section 8.0 of the application, as supplemented.
11. The packaging authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.17.
12. Fabrication of the package must have been completed by April 1, 1999.
13. Revision No. 12 of this certificate may be used until January 30, 2011.

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14. Expiration date: April 30, 2015.

REFERENCES

Source Production and Equipment Company, Inc. application dated March 24, 2000.

Supplements dated: March 30, 2000, March 14, 2005, and December 16, 2009.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Eric J. Benner, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Date: January 17, 2010.



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

**SAFETY EVALUATION REPORT**

Docket No. 71-9056  
Model No. SPEC 2-T Package  
Certificate of Compliance No. 9056  
Revision No. 13

**SUMMARY**

By application dated December 16, 2009, Source Production & Equipment Co., Inc., requested renewal of Certificate of Compliance No. 9056, for the Model No. SPEC 2-T package. Source Production & Equipment Co., Inc., 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 December 16, 2009, Source Production & Equipment Co., Inc., requested renewal of Certificate of Compliance No. 9056, for the Model No. SPEC 2-T package. Source Production & Equipment Co., Inc. 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. 5(b)(2) was revised to clarify the derivation of the maximum quantity of Iridium-192 in terms of output curies, and to include the corresponding radioactivity in units of Terabecquerels.

Condition No. 8 was revised to show the activity in Terabecquerels, with the customary units, Curies, continuing to be shown in parenthesis following the SI units.

Condition No. 9 was revised to show the activity in Terabecquerels, with the customary units, Curies, continuing to be shown in parenthesis following the SI units.

Condition No. 10(b) was revised to delete the acceptance test requirements because the package can no longer be fabricated.

A new Condition 12 was added for clarity to specify that the fabrication of all packages must have been completed by April 1, 1999.

A new Condition No. 13 was added that authorizes the use of the previous revision of the certificate for a period of approximately one year.

A new Condition No. 14 was added to replace Condition No. 12 in Revision No. 12 of the certificate and reflect the new expiration date, April 30, 2015. As a consequence of the inclusion of the new Condition Nos. 12-13, the previous Condition No. 12 was renumbered No. 14.

## **CONCLUSION**

The certificate has been renewed for a five year term that expires on April 30, 2015. 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. 9056, Revision No. 13, on *January 12*, 2010.