



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

July 13, 2011

Ms. Kelley Richardt  
Regulatory and Quality Manager  
Source Production & Equipment Co., Inc.  
113 Teal Street  
St. Rose, LA 70087-9691

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9036 FOR THE MODEL NO. C-1  
PACKAGE

Dear Ms. Richardt:

As requested by your application dated May 26, 2011, enclosed is Certificate of Compliance No. 9036, Revision No. 12, for the Model No. C-1 package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471. Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471. Registered Users may request by letter to remove their names from the Registered Users List.

If you have any questions regarding this certificate, please contact Pierre Saverot of my staff at (301) 492-3408.

Sincerely,

A handwritten signature in black ink that reads "m d Waters".

Michael D. Waters, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 71-9036  
TAC No. L24541

Enclosures: 1. Certificate of Compliance  
No. 9036, Rev. No. 12  
2. Safety Evaluation Report  
3. Registered Users

cc w/encls 1&2: R. Boyle, Department of Transportation  
J. Shuler, Department of Energy  
Registered Users

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
9036	12	71-9036	USA/9036/B(U)-96	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

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| a. ISSUED TO ( <i>Name and Address</i> )<br>Source Production and<br>Equipment Company, Inc.<br>113 Teal Street<br>St. Rose, LA 70087-9691 | b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION<br>Source Production and Equipment Company, Inc.<br>application dated February 28, 2001, as supplemented. |
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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.: C-1
- (2) Description

The packaging consists of a steel inner unit inside an outer overpack. The inner unit is a rectangular box approximately 9" high x 7.5" wide x 7.5" deep around a depleted uranium shield. All fittings and source locking components are protected and enclosed within the 1/8" carbon steel outer shell. The inner receptacle consists of a uranium shield equipped with two closed bottom Zircalloy or titanium "J" tubes, each of which may house one "pigtail type" special form source. The overpack is a 12-gallon, 20- or 22-gage steel drum partially filled with foam. The weight of the inner unit is 51 to 70 lbs. The weight of the overpack is 19 to 22 lbs. Up to 8 lbs. of ancillary equipment may be included within the overpack. The maximum gross weight of the package is 100 lbs.

(3) Drawings

The packaging is constructed in accordance with Source Production and Equipment Company, Inc., Drawing Nos. B322000, Rev. (3); B311000, Rev. (2); B311001, Rev. (1); and B311002, Rev. (0).

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5.(b) Contents

(1) Type and form of material

Iridium-192, Selenium-75, and Ytterbium-169 as sealed sources that meet the requirements of special form radioactive material.

(2) Maximum quantity of material per package

Two sealed sources with a combined activity not to exceed 300 curies (11.1 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. Tungsten shield pads, with dimensions up to approximately 2-inches diameter and ½-inch thick, may be welded to the inside surface of the source changer housing.
7. The nameplate shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
8. 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 meet the Acceptance Tests and be maintained in accordance with the Maintenance Program of Section 8.0 of the application, as supplemented.
9. The packaging authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
10. Revision No. 11 of this certificate may be used until October 31, 2012.
11. Expiration date: October 31, 2016.

**CERTIFICATE OF COMPLIANCE  
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REFERENCES

Source Production and Equipment Company, Inc., applications dated September 27, 2000, and February 28, 2001.

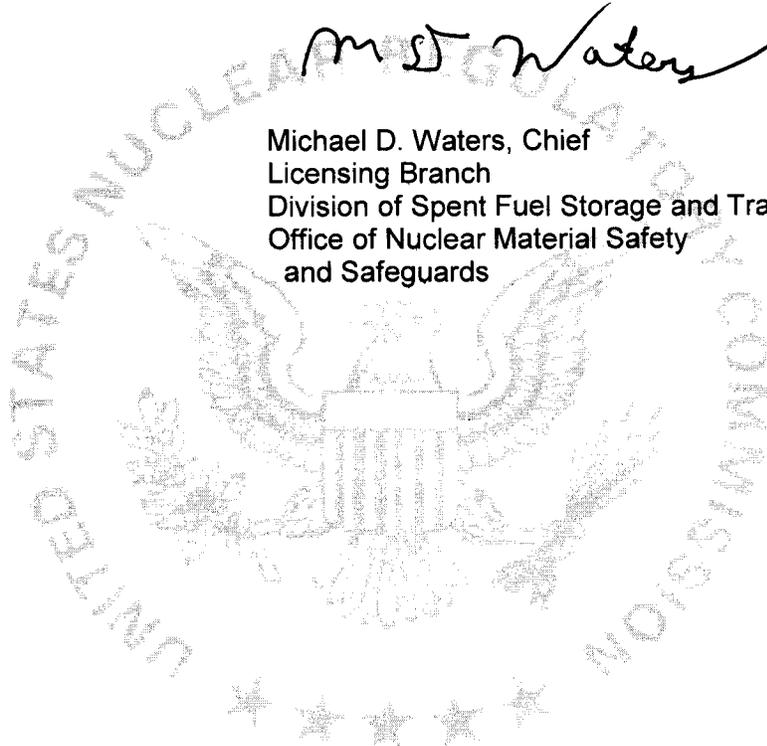
Supplements dated: April 11 and May 11, 2001; May 1, June 14 and June 23, 2006; and May 26, 2011.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Michael D. Waters, Chief  
Licensing Branch  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety  
and Safeguards

Date: July 13, 2011.





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**SAFETY EVALUATION REPORT**

Docket No. 71-9036  
Model No. C-1 Package  
Certificate of Compliance No. 9036  
Revision No. 12

**SUMMARY**

By application dated May 26, 2011, Source Production & Equipment Co., Inc., requested renewal of Certificate of Compliance No. 9036, for the Model No. C-1 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 May 26, 2011, Source Production & Equipment Co., Inc., requested renewal of Certificate of Compliance No. 9036, for the Model No. C-1 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. 10 was revised to authorize the use of the previous revision of the certificate for a period of approximately one year.

Condition No. 11 was revised to reflect the new expiration date, October 31, 2016, of the certificate.

**CONCLUSION**

The certificate has been renewed for a five year term that expires on October 31, 2016. 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. 9036, Revision No. 12, on  
July 13, 2011.