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

## COMPETENT AUTHORITY CERTIFICATION FOR A TYPE B(U)

RADIOACTIVE MATERIALS PACKAGE DESIGN CERTIFICATE USA/9282/B(U)-96, REVISION 4

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 B(U) packaging for radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America².

- 1. Package Identification SPEC-300.
- 2. <u>Package Description and Authorized Radioactive Contents</u> as described in U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9282, Revision 3 (attached).

#### 3. 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.

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

### CERTIFICATE USA/9282/B(U)-96, REVISION 4

- d. Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations 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.
- 4. <u>Special Condition</u> Certificate of Competent Authority No. USA/9282/B(U)-96, Revision 0, dated December 22, 2009 was issued in error and is superceded immediately. Previous revisions may be used in accordance with paragraph 6 of this certificate.
- 5. <u>Marking and Labeling</u> The package shall bear the marking USA/9282/B(U)-96 in addition to other required markings and labeling.
- 6. Expiration Date This certificate expires on April 30, 2020.

This certificate is issued in accordance with paragraph 808 of the IAEA Regulations and Section 173.471 of Title 49 of the Code of Federal Regulations, in response to the April 13, 2015 petition by Source Production and Equipment Company, Inc., St. Rose, LA, and in consideration of other information on file in this Office.

Certified By:

Dr. Magdy El-Sibaie

Associate Administrator for Hazardous Materials Safety

Apr 29 2015

(DATE)

Revision 4 - Issued to endorse U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9282, Revision 3.

#### NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES d. PACKAGE IDENTIFICATION NUMBER c. DOCKET NUMBER a. CERTIFICATE NUMBER b. REVISION NUMBER PAGE **PAGES** 71-9282 9282 3 USA/9282/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."
- This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or b. 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 70087-9691

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION Source Production and Equipment Company, Inc. application dated February 9, 2015.

#### 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-300

## (2) Description

The SPEC-300 is a radiographic device that consists of a source assembly, a depleted uranium shield, and a stainless steel enclosure. The radioactive source assembly is housed in a zircaloy or titanium "S" tube that is surrounded by the depleted uranium shield. The depleted uranium shield is secured in the stainless steel enclosure. The void space between the depleted uranium shield and the enclosure is filled with high density polyurethane foam. The package is approximately 26 inches long, 14 inches wide, and 15 inches high (16.5 inches high when including the lifting eye blocks). The maximum gross weight of the package is 780 pounds.

#### (3) Drawings

The packaging is constructed and assembled in accordance with Source Production and Equipment Co., Inc. General Arrangement drawings: 19B000, sheets 1-8, Rev. 5, B190700, sheet 1, Rev. 5, and B190701, sheet 1, Rev. 1.

## 5.(b) Contents

Type and form of material

Cobalt-60 sources which meet the requirements of special form radioactive material. ,

(2) Maximum quantity of material per package

11.1 TBq (300 Ci) (output)

Output curies are determined in accordance with American National Standard N432-1980, "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography."

- 6. The source shall be secured in the shielded position of the packaging by the source assembly lock, lock cap and safety plug assembly. The safety plug assembly, lock cap and source assembly must be fabricated of materials capable of resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The locking ball of the source assembly must engage the locking device. The flexible cable of the source assembly and safety plug assembly must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
- 7. The name plate must be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining its legibility.
- 8. In addition to the requirements of Subpart G of 10 CFR Part 71:
  - (a) The package shall be prepared for shipment in accordance with the Operating Procedures in Chapter 7.0 of the application, as supplemented; and
  - (b) The package must meet the Acceptance Test and Maintenance Program of Chapter 8.0 of the application, as supplemented.
- 9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
- 10. Revision No. 2 of this certificate may be used until April 30, 2016.
- 11. Expiration date: April 30, 2020.

## NRC FORM 618 (8-2000) 10 CFR 71

## U.S. NUCLEAR REGULATORY COMMISSION

## CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES

a. CERTIFICATE NUMBER b. REVISION NUMBER 9282 3

c. DOCKET NUMBER 71-9282

d. PACKAGE IDENTIFICATION NUMBER USA/9282/B(U)-96

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## **REFERENCES**

Source Production and Equipment Company, Inc., application dated February 9, 2015.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Michele M. Sampson, Chief

Spent Fuel Licensing Branch

Division of Spent Fuel Management

Office of Nuclear Material Safety

and Safeguards

Date: April 7 2015



# U.S. Department of Transportation

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

Pipeline and Hazardous Materials Safety Administration

CERTIFICATE NUMBER: USA/9282/B(U)-96, Revision 4

## **ORIGINAL REGISTRANT(S):**

Mr. R.D. Donny Dicharry President Source Production and Equipment Company, Inc. 113 Teal Street St. Rose, 70087-9691 USA

Kelly Richardt Regulatory and Quality Manager Source Production and Equipment Company, Inc. 113 Teal St. St. Rose, 70087 USA