



U.S. Department of Transportation

Pipeline and

Hazardous Materials Safety Administration

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

RADIOACTIVE MATERIALS PACKAGE DESIGN CERTIFICATE USA/9263/B(U)-96, REVISION 12

The Competent Authority of the United States certifies that the radioactive material package design described in this certificate satisfies the regulatory requirements for a Type B(U) package as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² The package design is approved for use within the United States for import and export shipments made in accordance with applicable international and domestic transport regulations.

- 1. Package Identification SPEC-150.
- 2. Package Description and Authorized Radioactive Contents as described in U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9263, Revision 10 (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 Engineering and Research, (PHH-23), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington D.C. 20590-0001.

<sup>&</sup>lt;sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" 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/9263/B(U)-96, REVISION 12

- 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.
- d. Records of Management System activities required by Paragraph 306 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.
- 4. Marking and Labeling The package shall bear the marking USA/9263/B(U)-96 in addition to other required markings and labeling.
- 5. Expiration Date This certificate expires on June 30, 2025. USA/9263/B(U)-96 Revision 11 may be used until June 30, 2020. All other revisions are not authorized for use.

This certificate is issued in accordance with paragraph(s) 810 of the IAEA Regulations and Section 173.471 of Title 49 of the Code of Federal Regulations, in response to the April 16, 2020 petition by Source Production and Equipment Company, Inc., St. Rose, LA, and in consideration of other information on file in this Office.

Certified By:

William Schoonover

Associate Administrator for Hazardous

Materials Safety

April 27, 2020 (DATE)

Revision 12 - Issued to endorse U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9263, Revision 10.

#### 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	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
- 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 February 14, 2011, 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-150

(2) Description

A welded titanium encased, uranium shielded, radiographic exposure device. Primary components consist of an outer titanium shell, internal supports, depleted uranium shield, and a titanium, titanium alloy or zircalloy S-tube. The contents are securely positioned in the S-tube by a source cable lock assembly and source safety plug assembly. The unit resembles a rectangular box approximately 5.4 inches wide, 5.6 inches high and 14.5 inches long. The maximum weight of the package is 53.5 pounds.

### (3) Drawings

The packaging is constructed and assembled in accordance with Source Production and Equipment Company, Inc. Drawing Nos. 15B000, Rev. 10; 15B001-3, Rev. 3; 15B002-A, Rev. 9; 15B008, Rev. 7; 19B005, Rev. 3; 19B006, Rev. 3; and 190909, Rev. 0.

#### NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES b. REVISION NUMBER a. CERTIFICATE NUMBER c. DOCKET NUMBER d. PACKAGE IDENTIFICATION NUMBER PAGE **PAGES** 71-9263 USA/9263/B(U)-96 2 OF 3 9263 10

### (b) Contents

(1) Type and form of material

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

(2) Maximum quantity of material per package

5.55 TBq (150 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 cap and safety plug assembly. The safety plug assembly, lock cap and source assembly used must be fabricated of materials capable of resisting a 1475 degrees Fahrenheit 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 nameplates shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.

Packaging must be marked with Package Identification Number USA/9263/B(U)-96.

- 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 in Section 7, of the application, as supplemented, and
  - (b) Each packaging must meet the Acceptance Tests and Maintenance Program in Section 8, of the application, as supplemented.
  - (c) The packaging will be fabricated and inspected in accordance with the 2007 or later edition of the ASME Code, Section VIII, Division 1. Alternatively, the 2007 or later edition of the AWS D1.9 Welding Code may be used for fabrication and inspection. Regardless of which construction code is used, any single package must be entirely fabricated and inspected in accordance with only a single edition of the referenced construction code. No mixing of codes or editions is permitted for a single package.

NRC FORM 618 U.S. NUCLEAR REGULATORY COMMISSION (8-2000) 10 CFR 71 CERTIFICATE OF COMPLIANCE FOR RADIOACTIVE MATERIAL PACKAGES										
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- 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. 9 of the certificate may be used until April 30, 2021.
- 11. Expiration date: June 30, 2025.

### **REFERENCES**

Source Production and Equipment Company, Inc., application dated February 14, 2011. Supplements dated February 18, 2011, and January 19, 2015.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

John McKirgan, Chief Storage and Transportation Licensing Branch Division of Fuel Management Office of Nuclear Material Safety and Safeguards

Date: April 14, 2020



## U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

CERTIFICATE NUMBER: USA/9263/B(U)-96

#### ORIGINAL REGISTRANT(S):

Source Production and Equipment Company, Inc. 113 Teal Street St. Rose, LA, 70087 USA

Industrial Nuclear Company, Inc. 14320 Wicks Blvd. San Leandro, CA, 94577 USA

Western Industrial X-Ray 1707 Enterprise Drive Unit J P.O. Box 238 Fairfield, CA, 94533 USA

Vital Inspection Professionals 180 Airpark Industrial Road Alabaster, AL, 35007 USA

RLN Industries 7533 FM 2004 Hitchcock, TX, 77563 USA

Isoflex Radioactive 108 Teal Street

St. Rose, LA, 70087 USA

XCEL NDT 2755 State Highway 322 Longview, TX, 75603