

PDR

71-9007

**AI** NUCLEAR ENERGY SERVICES, INC.  
CONAM INSPECTION DIVISION  
6106 ROOKIN  
HOUSTON, TEXAS 77074  
(713) 774-9657

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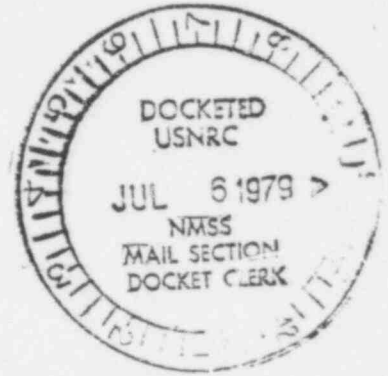
6-29-79

United States Nuclear Regulatory Commission  
Office of Nuclear Material Safety & Safeguards  
Division of Materials and Fuel Cycle Facility Licensing  
Transportation Branch  
Washington, D.C. 20555

Attention: Charles E. McDonald, Chief

Dear Sir:

In accordance with 10CFR, 71.12 (b),  
Nuclear Energy Services Inc.  
CONAM Inspection Division  
6106 Rookin Street  
Houston, Texas 77074  
NRC License #42-16559-01  
Texas License #11-478



request to be registered as a user of Automation Industries Model 520 Isotope Camera, to be used as a type B radioactive material package.

Automations Certificate #9007  
Package ID# USA/9007/B

We are at the present time registered to use Automation Industries 500 SU shipping container (certificate #USA/9006/B) based on application dated June 24, 1975.

The following changes have taken place since that application and you may wish to note on that registration:

Zip code 77036 has been changed to 77074  
NRC License #35-09114-01 has been changed to 42-16559-01  
Texas License #8-478 has been changed to 11-478

If I can supply any further information please advise.

Enclosures:

CC: U.S. Department of Transportation  
Office of Hazardous Material Operations  
Washington, D.C. 20590

Automation Industries  
Phoenixville, PA.

*Otis Gamble*

OTIS C. GAMBLE  
Radiation Safety Office  
Nuclear Energy Services Inc.  
CONAM Inspection Division

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**FEE EXEMPT**

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MODEL 520

DEPARTMENT OF TRANSPORTATION  
MATERIALS TRANSPORTATION BUREAU  
WASHINGTON, D.C. 20590

EXPIRES  
MAY 31, 1980

IAEA CERTIFICATE OF COMPETENT AUTHORITY

Type B Radioactive Material Package Design

Certificate Number USA/9007/B  
(Revision 1)

This establishes that the packaging design described herein, when loaded with the authorized radioactive contents, has been certified by the National Competent Authority of the United States as meeting the regulatory requirements for Type B packaging for radioactive materials as prescribed in IAEA 1/ Regulations and 49 CFR 173.393a, 173.394(b)(3), 173.395(b)(3); of the USA 2/ Regulations for the transport of radioactive materials.

I. Package Identification - Automation Industries Model 520 Iriditron, Radiography Device Drawings 100-520-001/012, 200-520-001, 200-520-011, 100-520-014 and 100-520-013.

II. Packaging Description - The packaging authorized by this certificate consists of a depleted uranium shield contained within a 5" O. D. X 7" stainless steel pipe (Deformed to an ellipsoidal cross-section) with 1/8" walls and welded end-plate closures. The contents are positioned within a S-shaped titanium tube with threaded end caps and a lock mechanism. The gross weight of the package is about 40 pounds.

III. Authorized Radioactive Contents - The authorized contents consist of Type B quantities of radioactive material as not more than 120 curies of iridium-192, which must meet the requirements for special form as set forth in 49 CFR 173.398 (a) 2/.

IV. General Conditions -

a. Each user of this certificate must have in his possession a copy of this certificate.

b. Each user of this certificate, other than Automation Industries, Inc., Phoenixville, Pa., shall register his identity in writing to the Office of Hazardous Materials Operations, U. S. Department of Transportation, Washington, D. C. 20590

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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. Each package described by this certificate must be prepared for shipment in accordance with the applicable operation instructions 3/ for the identified package.

V. Marking and Labeling - The package must bear the marking USA/9007/B as well as the other marking and labels prescribed by the USA Regulations.

VI. Expiration Date - This certificate, unless renewed, expires on May 31, 1980.

This certificate is issued in accordance with the requirements of the IAEA and USA Regulations and in response to the April 16, 1974 and March 23, 1977 petitions by the Automation Industries, Inc. Phoenixville, Pa., and in consideration of the associated information provided in U. S. Nuclear Regulatory Commission Certificate USA/9007/B. Rev. 1 (Appendix A.)

Certified by:

*A. W. Grella*

*May 12, 1977*  
(DATE)

A. W. Grella, Chief  
Technology Division  
Office of Hazardous Materials  
Operations  
Materials Transportation Bureau  
U. S. Department of Transportation  
Washington, D. C. 20590

- 1/ "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1967 Edition published by the International Atomic Energy Agency (IAEA) Vienna, Austria.
- 2/ Title 49, Code of Federal Regulations, Parts 100-199, USA.
- 3/ As approved by the cognizant state or federal authority having jurisdiction over use and possession of the radiography services.

Revision 1 issued to extend expiration date and to incorporate USNRC Certificate USA/9007/B. Rev. 1.

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Form NRC-618  
(12-73)  
10 CFR 71

U.S. NUCLEAR REGULATORY COMMISSION  
CERTIFICATE OF COMPLIANCE  
For Radioactive Materials Packages

1.(a) Certificate Number 9007	1.(b) Revision No. 1	1.(c) Package Identification No. USA/9007/B	1.(d) Pages No. 1	1.(e) Total No. Pages 2
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2. PREAMBLE

- 2.(a) This certificate is issued to satisfy Sections 173.393a, 173.394, 173.395, and 173.396 of the Department of Transportation Hazardous Materials Regulations (49 CFR 170-189 and 14 CFR 103) and Sections 146-19-10a and 146-19-100 of the Department of Transportation Dangerous Cargoes Regulations (46 CFR 146-149), as amended.
- 2.(b) The packaging and contents described in item 5 below, meets the safety standards set forth in Subpart C of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 2.(c) 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—

3.(a) Prepared by (Name and address): Automation Industries, Inc. P. O. Box 245 Phoenixville, Pennsylvania 19460	3.(b) Title and identification of report or application: Automation Industries, Inc. application dated July 25, 1973, as supplemented.
3.(c) Docket No 71-9007	

4. CONDITIONS

This certificate is conditional upon the fulfilling of the requirements of Subpart D of 10 CFR 71, as applicable, and the conditions specified in item 5 below.

5. Description of Packaging and Authorized Contents, Model Number, Fissile Class, Other Conditions, and References:

(a) Packaging

(1) Model No.: 520

(2) Description

A uranium shielded radiographic device consisting of an ovated 5" OD x 1/8" thick steel pipe welded to two 10-gage end plates. An opening on each plate gives access to the "S"-shaped titanium tubing which houses the source capsule, source cable assembly, and the end plug. The two end openings are closed with threaded end caps. A lock mechanism is provided at the source cable attachment. Gross weight of the package is approximately 40 pounds.

(3) Drawings

The packaging is constructed in accordance with Automation Industries, Inc. Drawings 200-520-001, Rev. A; 100-520-001/012; 200-520-011; 100-520-014; and 100-520-013.

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5. (b) Contents

(1) Type and form of material

Iridium-192 as a sealed source which meets the requirements of special form as defined in §71.4(o) of 10 CFR Part 71.

(2) Maximum quantity of material per package

120 curies

- 6. The source shall be positioned within the titanium tubing by a source cable assembly which meets the parameters shown in Automation Industries, Inc. Drawing No. SK-500-SU.
- 7. The nameplate shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining its legibility.
- 8. The package authorized by this certificate is hereby approved for use under the general license provisions of Paragraph 71.12(b) of 10 CFR Part 71.
- 9. Expiration date: May 31, 1980.

REFERENCES

Automation Industries, Inc. application dated July 25, 1973.

Supplements dated: November 28, 1973; and February 18 and April 4, 1975.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

*Charles E. MacDonald*  
 Charles E. MacDonald, Chief  
 Transportation Branch  
 Division of Fuel Cycle and  
 Material Safety

Date: MAR 29 1977

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