



U.S. Department of
Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

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

February 10, 2020

Dr. James M. Shuler
Manager, Packaging Certification Program
Department of Energy
U.S. Department of Energy
1000 Independence Ave, SW
EM-60
Washington, DC, 20585
USA

Dear Dr. James M. Shuler,

As your February 5, 2020 letter requested, Department of Energy has been registered as a user of IAEA Certificate of Competent Authority USA/0043/S-96 for the Monsanto Research Corporation Model 2720 Series. The sources described in the attached certificate have demonstrated their ability to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the United States of America and the International Atomic Energy Agency.

A copy of the certificate is enclosed. All future revisions of the certificate will be forwarded to Department of Energy at James.Shuler@em.doe.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard W. Boyle".

Richard W. Boyle, Chief
Radioactive Materials Branch
Office of Engineering and Research



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
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IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0043/S-96, REVISION 14

1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - Monsanto Research Corporation Model 2720 Series.
2. Source Description - The sources described by this certificate are cylindrical double encapsulations constructed of stainless steel with welded closures and with the dimensions indicated in the following table:

Model Number	Outside Diameter mm (inches)	Length mm (inches)
2721 A, B, or C	12.7 (0.50)	12.7 (0.50)
2722 A, B, or C	12.7 (0.50)	17.8 (0.70)
2723 A, B, or C	19.1 (0.75)	22.1 (0.87)
2724 A, B, or C	25.4 (1.00)	28.4 (1.12)
2725 A, B, or C	25.4 (1.00)	38.1 (1.50)
2726 A, B, or C	25.4 (1.00)	50.8 (2.00)
2727 A, B, or C	38.1 (1.50)	63.5 (2.50)
2728 A, B, or C	38.1 (1.50)	88.9 (3.50)
2729 C	38.1 (1.50)	53.3 (2.10)

The sources authorized by this certificate are only those that have been manufactured prior to January 1, 1985 in accordance with Monsanto Research Corporation Drawing Numbers: B2721-AA00, B2722-AA00, B2723-AA00, B2724-AA00, B2725-AA00, B2726-AA00, B2727-AA00, B2728-AA00, A2721-BA00, A2722-BA00, A2723-BA00, A2724-BA00, A2725-BA00, A2726-BA00, A2727-BA00, A2728-BA00, C2721-CA00, C2722-CA00, C2723-CA00, C2724-CA00, C2725-CA00, C2726-CA00, C2727-CA00, C2728-CA00, or C2729-CA00. Monsanto Research Corporation Drawing Numbers C2728-CA00 and C2729-CA00 are attached as examples.

¹ "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.

² Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

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3. Radioactive Contents - These sources consist of Americium-241 or Plutonium-238 as oxide in powder form mixed with a neutron producing target material (Be, B, Li, F, or C) in powder form. The maximum activity of each is as indicated in the following table:

Model Number	Maximum TBq (Ci) Content	Model Number	Maximum TBq (Ci) Content
2721 A	0.01 (0.3)	2726 B	0.59 (16)
2722 A	0.04 (1)	2727 B	1.74 (47)
2723 A	0.11 (3)	2728 B	2.78 (75)
2724 A	0.19 (5)	2721 C	0.01 (0.3)
2725 A	0.31 (8.5)	2722 C	0.05 (1.3)
2726 A	0.44 (12)	2723 C	0.09 (2.35)
2727 A	0.22 (6)	2724 C	0.21 (5.6)
2728 A	0.37 (10)	2725 C	0.42 (11.4)
2721 B	0.01 (0.4)	2726 C	0.65 (17.7)
2722 B	0.05 (1.4)	2727 C	1.78 (48)
2723 B	0.11 (2.9)	2728 C	2.89 (78)
2724 B	0.22 (6)	2729 C	1.28 (34.7)
2725 B	0.37 (10)		

4. Quality Assurance - Records of Quality Assurance activities required by paragraph 310 of the IAEA regulations¹ 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 requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on November 30, 2021.

This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the November 09, 2016 petition submitted by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified by:


William Schoonover

Acting Associate Administrator for Hazardous Materials Safety

NOV 10 2016

(DATE)

Revision 14 - Issued to extend the expiration date.



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

CERTIFICATE NUMBER: USA/0043/S-96

ORIGINAL REGISTRANT(S) :

J.L. Shepherd & Associates
1010 Arroyo Ave.
San Fernando, CA, 91340-1822
USA

Westinghouse
Westinghouse Electric Company - Nuclear Fuel
Columbia Fuel Fabrication Facility
5801 Bluff Road
Hopkins, SC, 29061
USA

Bechtel Jacobs Company
P.O. Box 4699
Oak Ridge, TN, 37831
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McMaster University
Health Physics, Nuclear Research Building
1280 Main Street West
Hamilton, Ontario, NRB107
Canada

Los Alamos National Laboratory
A194
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REGISTERED USERS:

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