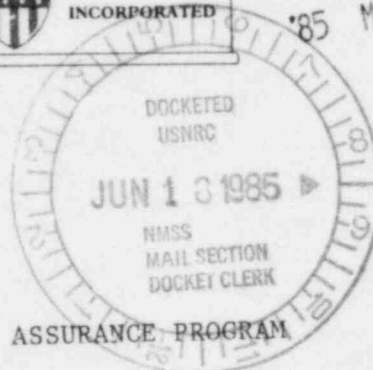
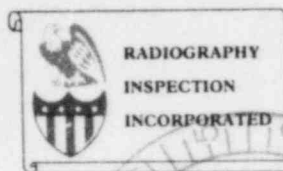


71-0543

May 85-2

Applicant.....
Check No. 4439.....
Amount/Fee Category 1150-10A.....
Type of Fee Application.....
Date Check Recd. 6/14/85.....
Received By. J. L. Liso.....



85 MAY 20 11:02

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NRC License # 15-21451-01

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QUALITY ASSURANCE PROGRAM

85 MAY 2 11:37

1. ORGANIZATION

The final responsibility for the QA Program for Part 71 requirements rests with Radiography Inspection, Inc.

Design and fabrication shall not be conducted under this QA Program. The Radiation Safety Officer is designated the responsible individual for the part 71 quality assurance requirements.

The Radiation Safety Officer is responsible for overall administration of the program, training and certification, document control and auditing.

The Radiographers are responsible for handling, storing, shipping, inspection, test and operating status and record keeping.

2. QUALITY ASSURANCE PROGRAM

The management of Radiography Inspection, Inc., establishes and implements this QA Program. Training, prior to engagement, for all QA functions is required according to written procedures. QA Program revisions will be made according to written procedures with management approval. The QA Program will ensure that all defined QA Procedures, engineering procedures and specific provisions of the package design approval are satisfied. The QA Program will emphasize control of the characteristics of the package which are critical to safety.

The Radiation Safety Officer shall assure that all radioactive material shipping packages are designed and manufactured under a QA program approved by Nuclear Regulatory Commission for all packages designed or fabricated after January 1, 1979. This requirement can be satisfied by receiving a certification to this effect from the manufacturer.

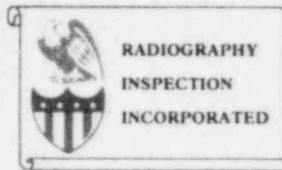
3. DOCUMENT CONTROL

All documents related to a specific shipping package will be controlled through the use of written procedures. All documents changes will be performed according to written procedures approved by management.

The Radiation Safety Officer shall ensure that all QA functions are conducted in accordance with the latest applicable changes to these documents.

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Page 2 - Quality Assurance Program

4. HANDLING, STORAGE AND SHIPPING

Written safety procedures concerning the handling, storage and shipping of packages for certain special form radioactive material will be followed. Shipments will not be made unless all tests, certifications, acceptances and final inspections have been completed. Work instructions will be provided for handling, storage and shipping operations.

Radiography personnel shall perform the critical handling, storage and shipping operations.

5. INSPECTION, TEST AND OPERATING STATUS

Inspection, test and operating status of packages for certain special form radioactive material will be indicated and controlled by written procedures. Status will be indicated by tag, label, marking or log entry. Status of nonconforming parts or packages will be positively maintained by written procedures. The Radiation Safety Officer shall ensure that these functions are performed.

6. QUALITY ASSURANCE RECORDS

Records of package approvals (including references and drawings), procurement, inspections, tests, operating logs, audit results, personnel training and qualifications and records of shipments will be maintained. Descriptions of equipment and written procedures will also be maintained.

- a) The records will be maintained in accordance with a written procedure.
- b) The records will be identified and retrievable.
- c) The Radiation Safety Officer will maintain a list of the records and their storage location.

7. AUDITS

Established schedule of audits of the QA Program will be performed using written check lists. Results of audits will be maintained. Audit reports will be evaluated and deficient areas corrected. The audits will be dependent of the safety significance of the activity being audited, but each activity will be audited at least once a year. Audit reports will be maintained as part of the quality assurance records. Members of the audit team shall have no responsibility being audited.

Orville McBride
Radiography Inspection Inc.
President and Owner


DOCKET NO. 71-0543
CONTROL NO. 25383
DATE OF DOC. Undated
DATE RCVD. 05/20/85
FCUF _____ PDR ☒
FCAP _____ LPDR _____
WM _____ I&E RFF. ☒
WMUR _____ SAFEGUARDS _____
FCTC ☒ OTHER _____

DESCRIPTION:

reference their
Quality Assurance
Program issuance

06/18/85 INITIAL C&C

Spec



U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY

Type B Radioactive Material Package Design

Certificate Number USA/9056/B()
(Revision 2)

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 IAEA¹ Regulations and in accordance with 49 CFR §§ 173.393b and 173.394(b)(3) of the USA² Regulations for the transport of radioactive materials.

I. Package Identification - Source Production and Equipment Company, Inc. - Model Specification 2-T.

II. Packaging Description - Packaging authorized by this certificate is a steel-encased, uranium-shielded gamma ray projector having components consisting of an outer steel shell, internal bracing, depleted uranium shield, and a Zircalloy "S" tube. Contents are positioned in the "S" tube by a source cable locking device and shipping plug. Package is rectangular, 12.5" long by 4.4" high and 4.4" wide with gross weight of 40 pounds.

III. Authorized Radioactive Contents - The authorized contents consist of not more than 200 Curies of Iridium-192 in the form of sealed sources which must meet the definition of special form radioactive material.

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 Source Production and Equipment Company, Inc., Kenner, Louisiana, shall register his identity in writing to the Office of Hazardous Materials Regulation, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590.

(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.

V. Marking and Labeling - The package must bear the marking USA/9056/B() as well as the other marking and labels prescribed by the USA Regulations.

VI. Expiration Date - This certificate, unless renewed, expires on March 31, 1986.

This certificate is issued in accordance with the requirements of the IAEA and USA Regulations and in response to the April 22, 1981 petition by Source Production and Equipment Company, Inc., Kenner, Louisiana, and in consideration of the associated information provided in the U.S. Nuclear Regulatory Commission Certificate of Compliance No. 9056, (Appendix A).

Certified by:



R. R. Rawl
Chief, Radioactive Materials Branch
Office of Hazardous Materials Regulation
Materials Transportation Bureau

May 28, 1981
DATE

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.

Revision 2 issued to incorporate Revision 1 of USNRC Certificate of Compliance No. 9056 and to extend expiration date.



U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY

Type B Radioactive Materials Package Design

Certificate Number USA/6717/B(U)T
(Revision 0)

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 and 173.394(b) (3) of the USA 2/ Regulations for the transport of radioactive materials.

I. Package Identification - Model No. 6717-B.

II. Packaging Description - Packaging authorized by this certificate consists of an outer 10-gallon steel drum with an inner container which is a metal-walled container meeting the requirements of DOT Specification 7A, surrounded by polyurethane filler and a 1-1/2" asbestos liner. Gross weight is approximately 75 pounds.

III. Authorized Radioactive Contents - The authorized contents consist of radioactive materials, n.o.s., as not more than 200 curies of iridium-192 as sealed sources which must meet the requirements for special form as set forth in 49 CFR 173.389(g).

Contents must be of a design which has been tested and demonstrated to be leaktight to a sensitivity of 10^{-5} atm-cc/sec or less.

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 Gamma Industries, Baton Rouge, Louisiana, shall register his identity in writing to the Office of Hazardous Materials Regulation, U.S. Department of Transportation, Washington, D.C. 20590.

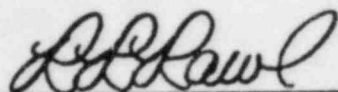
c. This certificate does not relieve any consignor or carrier from compliance with any requirement of the Government of any country through or into which the package is to be transported.

V. Marking and Labeling - The package must bear the marking USA/6717/B(U) as well as the other marking and labels prescribed by the USA Regulations.

VI. Expiration Date - This certificate, unless renewed, expires on July 31, 1985.

This certificate is issued in accordance with the requirements of the IAEA and USA Regulations and in response to the June 1, 1981, petition by Gamma Industries, Baton Rouge, Louisiana and in consideration of the associated information provided in U.S. Nuclear Regulatory Commission Certificate No. 6717 (Appendix A) and related correspondence.

Certified by:



R. R. RAWL
Chief, Radioactive Materials Branch
Office of Hazardous Materials Regulation
Materials Transportation Bureau

February 12, 1982
(DATE)

1/ "Safety Series No. 6, Regulations for the Safe Transportation of Radioactive Materials," 1973 Revised Edition published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

2/ Title 49, Code of Federal Regulations, Parts 100-199, USA.

**CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES**

U.S. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
6717	5	USA/6717/B(U)	1	2

2. PREAMBLE

- This certificate is issued to certify that the 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 of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 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

a. PREPARED BY (Name and Address):

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION:

Gamma Industries
P.O. Box 2543
Baton Rouge, LA 70821

Nuclear Packaging, Inc. application dated
June 20, 1975, as supplemented

c. DOCKET NUMBER

71-6717

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.: 6717-B

(2) Description

Radiographic device within a protective overpack. The overpack consists of an outer container which is a 10-gallon open head steel drum having a minimum 20-gauge body and cover, welded seams and a clamp-ring type head closure. The void space between the inner and outer container is filled with 1-1/2" thick molded asbestos free liner on sides, top and bottom, plus molded polyurethane filler to position and secure the radiographic device within the drum. Maximum gross weight of the package not to exceed 75 pounds.

(3) Drawing

The packaging is constructed in accordance with Nuclear Packaging Inc. Drawing No. SK-D-1, Rev. 2.

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Page 2 - Certificate No. 6717 - Revision No. 5 - Docket No. 71-6717

5. (b) Contents

(1) Type and form of material

iridium 192 as sealed sources which meet the requirements of special form radioactive material.

(2) Maximum quantity of material per package

200 curies.

6. The contents must be secured in a single snug-fitting inner radiographic device which has a metal outer wall and meets the requirements of DOT Specification 7A packaging.
7. The source shall be secured in the shielded position of the radiographic device by the shipping plug, source assembly, and locking device. The shipping plug and source assembly used must be fabricated of materials capable of resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The ball stop of the source assembly must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
8. The packaging authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR§71.12.
9. Expiration date: July 31, 1985.

REFERENCES

Nuclear Packaging, Inc. application dated June 20, 1975.

Supplements dated: August 8, 1975; and February 26, 1980.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: SEP 06 1983

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

U.S. NUCLEAR REGULATORY COMMISSION

1. CERTIFICATE NUMBER	2. REVISION NUMBER	3. PACKAGE IDENTIFICATION NUMBER	4. PAGE NUMBER	5. TOTAL NUMBER PAGES
9056	2	USA/9056/B()	1	2

2. PREAMBLE

- This certificate is issued to certify that the 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 of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 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

a. PREPARED BY (Name and Address):

Source Production & Equipment
Company
625 Oxley Street
Kenner, LA 70062

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION:

Source Production & Equipment Company application
dated July 28, 1975, as supplemented.

c. DOCKET NUMBER: 71-9056

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 2-T

(2) Description

A steel encased, uranium shielded Gamma Ray Projector. Primary components consist of an outer steel shell, internal bracing, depleted uranium shield, and a Zircalloy "S" tube. The contents are securely positioned in the Zircalloy "S" tube by a source cable locking device and shipping plug. The unit resembles a rectangular box 12.5" long by 4.4" high by 4.4" wide with a gross weight of 40 pounds.

(3) Drawing

The packaging is constructed in accordance with Source Production & Equipment Company Drawing No. 1000, Revision No. 0.

5. (b) Contents

(1) Type and form of material

Iridium 192 as sealed sources which meet the requirements of special form radioactive material.

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Page 2 - Certificate No. 9056 - Revision No. 2 - Docket No. 71-9056

5. (b) Contents (continued)

(2) Maximum quantity of material per package

200 curies

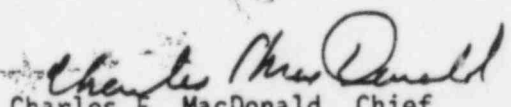
6. The source must be secured in the shielded position of the packaging by the shipping plug, source assembly, and locking device. The shipping plug and source assembly used must be fabricated of materials capable of resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The source assembly ~~ball stop~~ must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
7. The nameplates must be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
8. The packaging authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 57.12.
9. Expiration date: March 31, 1986.

REFERENCES

Source Production & Equipment Company application dated July 28, 1975.

Supplement dated: January 8, 1976.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION


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

Date: _____

SEP 06 1983