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to 396SS

(412) 687-7100
3700 Butler Street
Pittsburgh, PA 15201

July 1, 1985

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71-9135
71-6717
71-9127
71-9128

Director
Office of Nuclear Material Safety and Safeguards
United States Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

In accordance with 10 CFR 71.12(b)(1)(iii), Vector Corporation, Technical Services Division, NRC License No. 37-20827-01 requests to be registered as a user of Gamma Industries:

- 1) Model Century SA, Package Identification Number USA/9135/B(U), under terms of certificate compliance number 9135 issued to Gamma Industries, Baton Rouge, LA.
2. Model 6717-B, Package Identification Number USA/6717/B(U), under terms of certificate compliance number 6717, issued to Gamma Industries, Baton Rouge, LA.
3. Model 100A, Package Identification Number USA/9127/B(U), under terms of certificate compliance number 9127 issued to Gamma Industries, Baton Rouge, LA.
4. Model C8, Package Identification Number USA/9128/B(U), under terms of certificate compliance number 9128, issued to Gamma Industries, Baton Rouge, LA.

Sincerely,

Edward Handrahan

EDWARD HANDRAHAN
Radiation Safety Officer

Vector Corporation
Technical Services Division
3700 Butler Street
Pittsburgh, PA 15201

EH:ps



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PDR ADOCK 07106717
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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
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 as 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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CONDITIONS (continued)

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.

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.

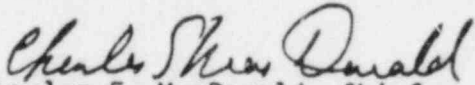
9. Expiration date: July 31, 1985.

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, 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
9135	1	USA/9135/B(U)	1	2

2. PREAMBLE

- a. 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."
- 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

a. PREPARED BY (Name and Address):

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

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Gamma Industries application dated
March 4, 1982.

c. DOCKET NUMBER

71-9135

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 Nos.: Century S, Century SA, Century Universal S, and Century Universal SA

(2) Description

A steel encased, uranium shielded radiographic device. The shipping container is approximately 7.0 inches long and 5.5 inches in diameter. The radioactive source assembly is housed in a Zircalloy or titanium "S" tube. The tube is surrounded by depleted uranium metal as shielding material. The depleted uranium shield assembly is encased in a steel housing. The void space between the depleted uranium shield assembly and the outer container is filled with a polyurethane foam. The packages differ from one another only in the construction and locations of the lock boxes (two types of lock boxes). The gross weight of the packages is 45 pounds.

(3) Drawings

The packagings are constructed in accordance with Gamma Industries Drawing Nos. 821-1001-439A, Rev. - (Century S&SA); and 821-1001-441A, Rev. - (Century Universal S&SA).

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CONDITIONS (continued)

Page 2 - Certificate No. 9135 - Revision No. 1 - Docket No. 71-9135

(b) Contents

(1) Type and form of material

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

(2) Maximum quantity of material per package

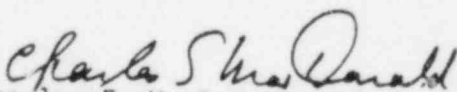
120 curies

6. The lock box assembly must be attached to the package (can) with twelve (12), 5/16"-18UNC x 1/2" long, ASTM 18-8, 304 stainless steel bolts. The minimum depleted uranium shielding thickness must be 1-9/16 inches.
7. The source must be secured in the shielded position of the packaging by the safety cap, source assembly and lock box assembly. The components used to secure the source must be fabricated of materials capable of resisting a 1,475°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 must be of sufficient length and diameter to provide positive positioning of the source at the optimum shielding position at the center of the "S" tube.
8. The name plates must be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining its legibility.
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
10. Expiration date: April 30, 1987.

REFERENCE

Gamma Industries application dated March 4, 1982.

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

CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

9. NUCLEAR REGULATORY COMMISSION

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. PACKAGE IDENTIFICATION NUMBER	d. PAGE NUMBER	e. TOTAL NUMBER PAGES
9128	3	USA/9123/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

Gamma Industries application dated May 20, 1973,
as supplemented.

c. DOCKET NUMBER

71-9128

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.: C-8

A steel encased, uranium shielded source exchanger. The shipping container is approximately 16 inches in diameter, 13 inches long and 26 inches high in its skid mounted configuration. The radioactive source assembly is housed in a Zircaloy or titanium "S" tube. A septum at the center of the "S" tube prevents moving the source assembly beyond the optimum shielding position. The tube is surrounded by depleted uranium metal as shielding material. The depleted uranium shield assembly is encased in a steel housing. The void space between the depleted uranium shield assembly and the outer container is filled with a polyurethane foam. The gross weight of the container is 500 pounds.

(3) Drawings

The packaging is constructed in accordance with Gamma Industries Drawing Nos. 821-1001-033, 191, 821-1001-347, 821-1001-389, 821-1001-116, 821-1001-414, 811-1001-346, 811-1001-408, 801-1001-336, 801-1001-328, 801-1001-283, 801-1001-338, 801-1001-224 and 801-1001-159.

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5. (b) Contents

(1) Type and form of material

Cobalt 60 as sealed sources that meet the requirements of special form radioactive material.

(2) Maximum quantity of material per package

200 curies

6. The source shall be secured in the shielded position of the packaging by the safety cap, source assembly and lockbox assembly. The components used to secure the source 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 must be of sufficient length and diameter to provide positive positioning of the source at the septum in the shielded position.
7. The can and side plates must be a minimum of 1/4-inch thick carbon steel. The can and side plates shall be joined by full penetration welds. All other welds shall be fillet welds having sufficient throat thickness to develop strength equal to or greater than the metals being joined.
8. The nameplates shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
10. Expiration date: October 31, 1988.

REFERENCES

Gamma Industries application dated May 20, 1978.

Supplement dated: October 25, 1978.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

R H Odegarden

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

Date: OCT 06 1983

U.S. NUCLEAR REGULATORY COMMISSION
CERTIFICATE OF COMPLIANCE
FOR RADIOACTIVE MATERIALS PACKAGES

1. CERTIFICATE NUMBER	2. REVISION NUMBER	3. PACKAGE IDENTIFICATION NUMBER	4. PAGE NUMBER	5. TOTAL NUMBER PAGES
9127	3	USA/9127/B(U)	1	2

2. PREAMBLE

- a. 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.
- 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

a. PREPARED BY (Name and Address)

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

b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION

Gamma Industries application dated May 20, 1978,
as supplemented.

c. DOCKET NUMBER

71-9127

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 Nos.: 100, 100A, 200 and 200A
- (2) Description

A steel encased, uranium shielded radiographic device. The shipping containers is approximately 21 inches long, 23 inches wide and 42 inches high. The radioactive source assembly is housed in a Zircalloy or titanium "S" tube. The tube is surrounded by depleted uranium metal as shielding material. The depleted uranium shield assembly is encased in a steel housing. The void space between the depleted uranium shield assembly and the outer container is filled with a polyurethane foam. The gross weight of the container is 500 pounds.

(3) Drawings

The packaging is constructed in accordance with Gamma Industries Drawing Nos. 821-1001-128, Rev. 4; 821-1001-129, Rev. 1; and 180-01, Rev. 1.

(b) Contents

- (1) Type and form of material

Cobalt 60 as sealed sources that meet the requirements of special form radioactive material.

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CONDITIONS (continued)

Page 2 - Certificate No. 9127 - Revision No. 3 - Docket No. 71-9127

(2) Maximum quantity of material per package

<u>Model No.</u>	<u>Quantity</u>
100 and 100A	100 curies
200 and 200A	200 curies

6. The source shall be secured in the shielded position of the packaging by the safety plug assembly, source assembly and lockbox assembly. The components used to secure the source 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 safety plug assembly must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
7. The can and side plates must be a minimum of 1/4-inch thick carbon steel. The can and side plates shall be joined by full penetration welds. All other welds shall be fillet welds having sufficient throat thickness to develop strength equal to or greater than the metals being joined.
8. The nameplates shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
9. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR §71.12.
10. Expiration date: October 31, 1988.

REFERENCES

Gamma Industries application dated May 20, 1978.

Supplement dated: October 25, 1978.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

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

Date: OCT 06 1983

DOCKET NO. 71-9135, 71-6717, etc...
CONTROL NO. 25491
DATE OF DOC. 07/01/85
DATE RCVD. 07/08/85
FCUF _____ PDR ☒
FCAF _____ LPDR _____
WM _____ I&E REF. ☒
WHUR _____ SAFEGUARDS. _____
FCTC ☒ OTHER _____

DESCRIPTION:

requests to be
registered as
a user

09/08/85 INITIAL Cec