



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

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

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0165/S-96, REVISION 7

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 United States of America² for the transport of radioactive materials.

1. Source Identification - QSA Global, Inc. Model Nos. A424-2 through A424-19 (excluding A424-6 through A424-9) and A453-1 through A453-10 (excluding A453-3 and A453-4).
2. Source Description - Cylindrical single or double encapsulations made of Type 304 or 304L stainless steel and seal welded. Approximate external dimensions are between 6.35 mm (0.25 in.) to 12.07 mm (0.48 in.) in diameter and between 23.8 mm (0.937 in.) to 40.33 mm (1.588 in.) in length. Each capsule assembly is connected to a source wire and connector assembly for use in radiographic instruments. Construction shall be in accordance with attached Technical Operations Inc. Drawing No. 60060, Sheets 2 and 3.
3. Radioactive Contents - No more than the following listed values of Cobalt-60 in solid metal form.

Model	Capsule Style	Activity (TBq/Ci)
A424-2	60011, 60001	0.81/22
A424-3	60011, 60001	0.81/22
A424-4	60011, 60000	2.04/55
A424-5	60011, 60001	0.22/6
A424-10	60011, 60004	0.22/6
A424-11	60011, 60004	2.04/55
A424-12	60011, 60004	4.07/110
A424-13	60012, 60002	12.22/330
A424-14	60011, 60004	4.07/110
A424-15	60011, 60004	0.41/11
A424-16	60011, 60000	2.04/55
A424-17	60011, 60000	2.04/55
A424-18	60011, 60000	1.22/33
A424-19	60001, 60004	0.004/0.11
A453-1	60011, 60000	4.07/110
A453-2	60012, 60002	6.11/165
A453-5	60012, 60002	20.37/550
A453-6	60013, 60003	40.74/1100
A453-7	60011, 60000	4.07/110
A453-8	60011, 60000	2.04/55
A453-9	60011, 60000	2.04/55
A453-10	60011, 60000	2.04/55

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 and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on July 31, 2013.

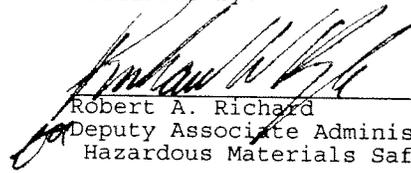
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

CERTIFICATE USA/0165/S-96, REVISION 7

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 petition and information dated July 16, 2008 submitted by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified by:



Robert A. Richard
Deputy Associate Administrator for
Hazardous Materials Safety

JUL 24 2008

(DATE)

Revision 7 - Issued to extend the expiration date and to update corporate name.

A60060

REV.

DATE

DESCRIPTION

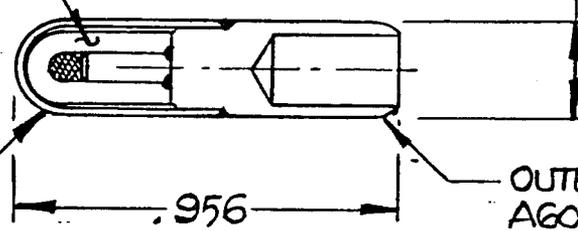
INNER CAPSULE:

- A60011-1
- A60011-2
- A60011-3
- A60011-4
- A60011-5

.250 DIA
.249

OUTER CAPSULE
A60011-6

OUTER PLUG
A60011-6



60011

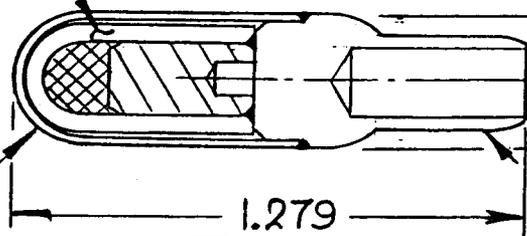
INNER CAPSULE:

- A60012-1
- A60012-2
- A60012-3

.350 DIA
.349

OUTER CAPSULE
A60012-4

OUTER PLUG
A60012-4



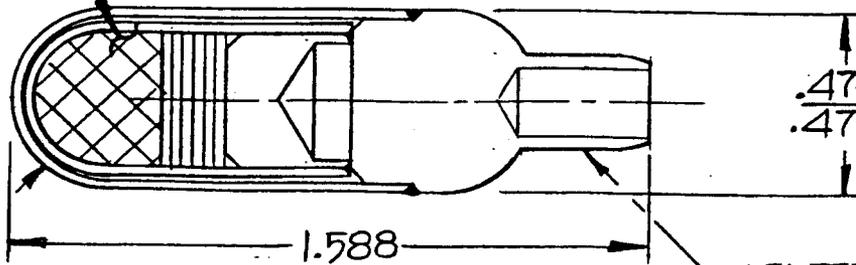
60012

INNER CAPSULE
B60013-5

.476 DIA
.475

OUTER CAPSULE
B60013-3

OUTER PLUG
B60013-4



60013

MATERIALS



TECHNICAL OPERATIONS INC.
RADIATION PRODUCTS DIVISION
BURLINGTON, MA 01803

FINISH

DWG TITLE

60
COBALT SOURCE REFERENCE
(DOUBLE ENCAPSULATION)

DRAWN BY

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

Z. J. [Signature] 25 JUL 79

.X ±

CHECKED BY

.XX ±

APPROVED BY

ANGLES ±

FRACTIONS ±

CLASSIFICATION

SIZE

DWG. NO.

REV.

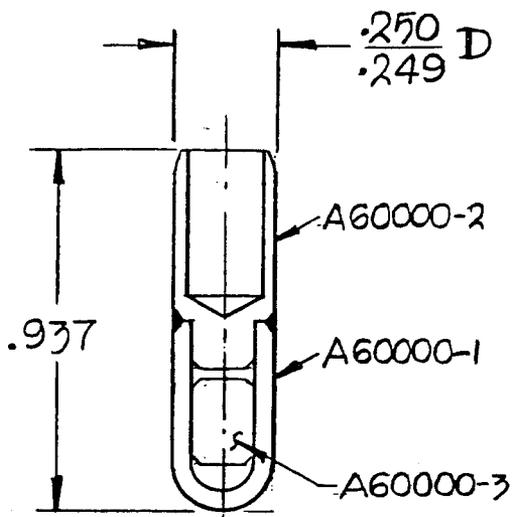
A

60060

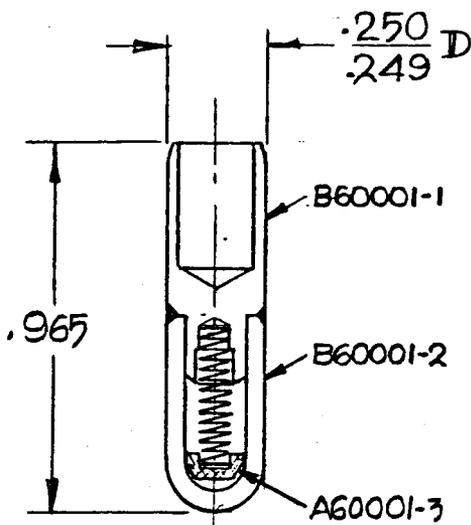
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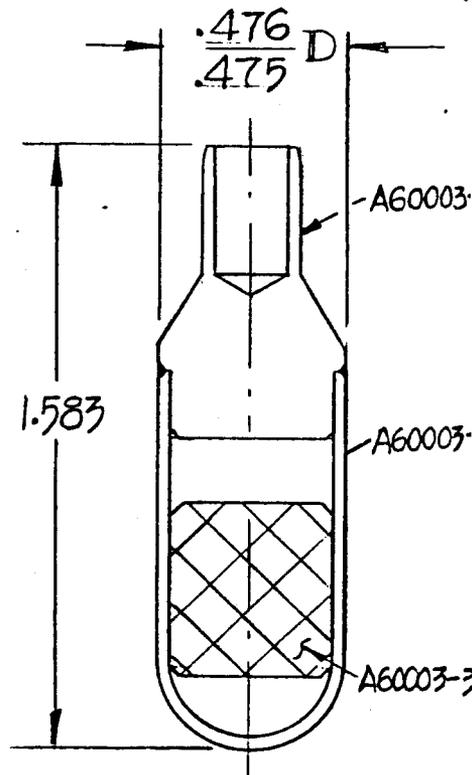
SHEET 2 OF 3



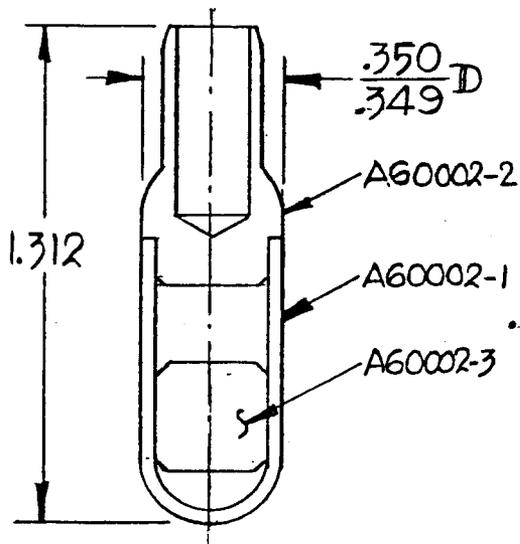
B60000



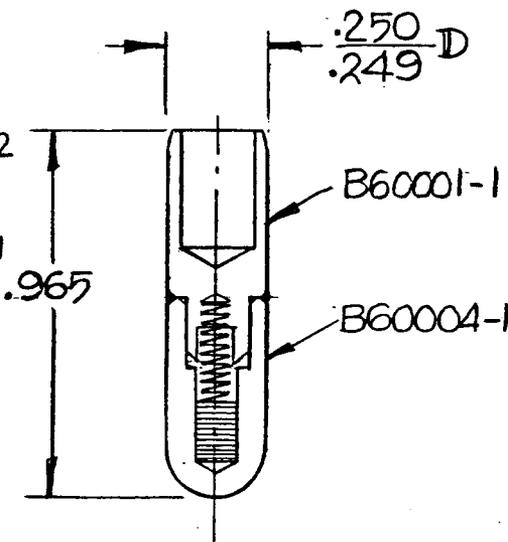
B60001



B60003



B60002



B60004

MATERIALS



TECHNICAL OPERATIONS INC.
RADIATION PRODUCTS DIVISION
BURLINGTON, MA 01803

FINISH

DWG TITLE

COBALT ⁶⁰ SOURCE REFERENCE
(SINGLE ENCAPSULATION)

DRAWN BY

P. J. [Signature]

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

.X ±

CHECKED BY

.XX ±

.XXX ±

APPROVED BY

ANGLES ±

FRACTIONS ±

CLASSIFICATION

SIZE

DWG. NO.

A

60060

REV

~

SCALE 2:1

SHEET 3 OF 3



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of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

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

CERTIFICATE NUMBER: USA/0165/S-96, Revision 7

ORIGINAL REGISTRANT(S):

Ms. Lori Podolak
Product Licensing Specialist
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Ms. Cathleen Roughan
Director, Regulatory Affairs and QA
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Mr. Michael Fuller
Regulatory Compliance Associate
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

REGISTERED USER(S):

Drew McCorkle
Century Inspection, Inc.
P.O. Box 59126
Dallas, TX 75229-1126

Mr. David Nezzar
Radiation Safety Officer
Integrated Quality Services
1236 W. Brokks Street
Ontario, CA 91762

Dusty L. Lowery
Group Leader
Los Alamos National Laboratory
A194
LANL
Los Alamos, NM 87545

Gilbert Torres
Deputy Group Leader
Los Alamos National Laboratory
A194
LANL
Los Alamos, NM 87545

Ms. Cristy Abeyta
Technical Staff Member, Environmental Scientist
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop: J552
Los Alamos National Laboratory
Los Alamos, 87545
USA