



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0078/S-96, REVISION 11**

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

This certifies that the source described has 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 - Gulf Nuclear Model CSV.
2. Source Description - Cylindrical welded double encapsulation made of Type 17-4 stainless steel. Approximate outer dimensions are 5.0 mm (0.2 in.) to 25.4 mm (1.0 in.) in diameter and 12.7 mm (0.5 in.) to 76.2 mm (3.0 in.) in length. Construction shall be in accordance with attached Gearhart Drawing No. 015-2011-039 or Dresser Atlas Drawing No. 88645.
3. Radioactive Contents - No more than either 111.0 GBq (3.0 Ci) of Thulium-170 as an oxide, 370.0 GBq (10.0 Ci) of Cesium-137 as ceramic pellets, 185.0 GBq (5.0 Ci) of Cobalt-60 as a metal, 74.0 GBq (2.0 Ci) of Americium-241 as an oxide, or 1.85 GBq (0.05 Ci) of Radium-226 as a sulfate.
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 applicable requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on August 31, 2020.

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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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 August 06, 2015 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



Aug 28 2015

(DATE)

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Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Revision 11 - Issued to extend the expiration date.

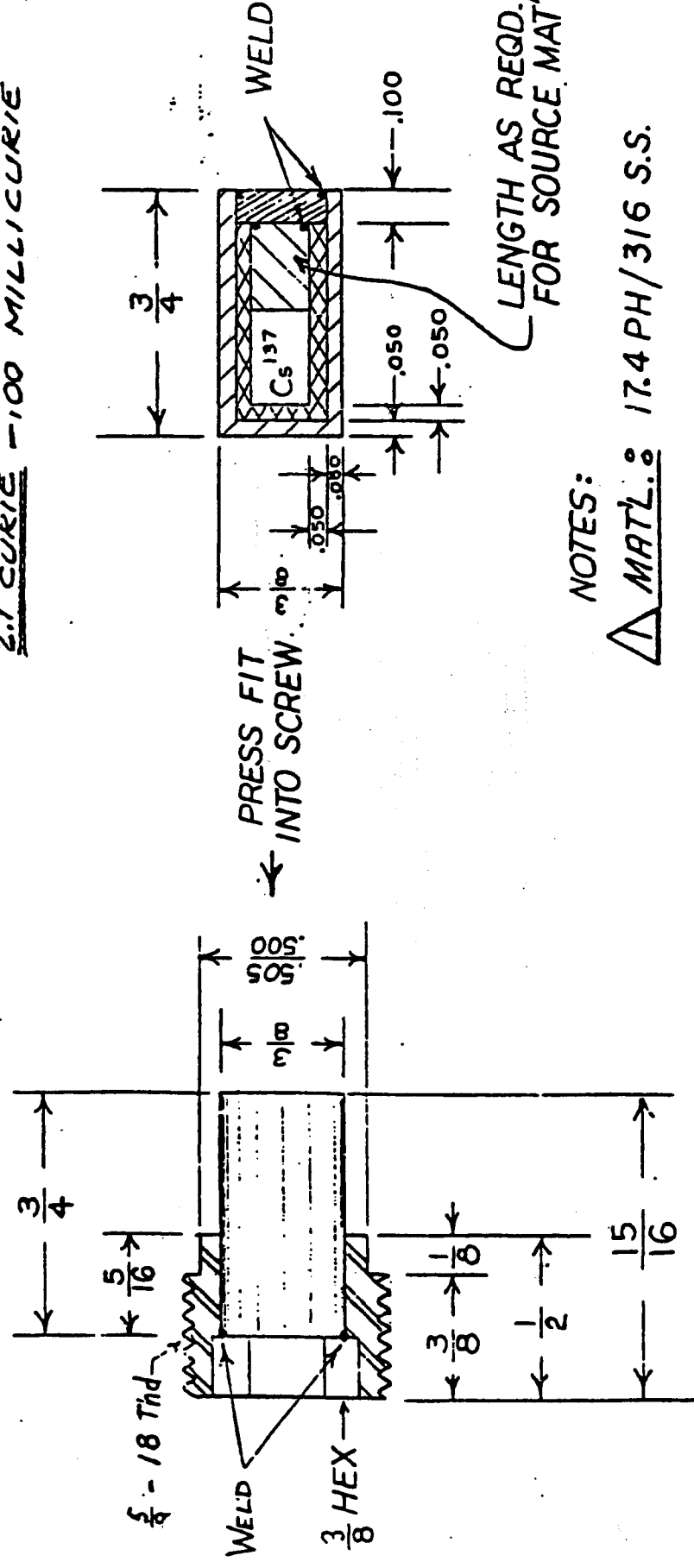
015-2011-039

MODIFY $\frac{1}{2} \times \frac{3}{4}$ SOCKET HEAD CAP SCREW
AS SHOWN 18 THDS PER INCH
(STAINLESS STEEL)

SOURCE STRENGTH:

CESIUM 137
2.1 CURIE

+200 MILLICURIE
-100 MILLICURIE



NOTES:

Δ MATL.: 17.4 PH/316 S.S.

003-4703-800
N/A: 003-4703-000

TOLERANCES UNLESS NOTED OTHERWISE (DECIMAL $\pm .008$) (FRACTIONAL $\pm 1/64$) (ANGULAR $\pm 1/2^\circ$)		GEARHART INDUSTRIES, INC. BOX 1936 • FORT WORTH, TEXAS 76101	
DIAMETERS CONCENTRIC TO \pm T.I.P. FINISH MARK V INDICATES POLISH FINISH BREAK SHARP EDGES WITH $1/64$ RADIUS		COMPENSATED DENSITY SOURCE	
MATL: Δ (VFM)	HEAT TREAT: N/A	2C CESIUM 137	
SCALE: 2/1	DATE: 11-11-71	APPROVED BY: JT	
ECO 11737 R	10-27-68	APPROVED BY:	
ECO 9713 SPM	5-27-68		
ECO #2493 A.F.	10-6-71		

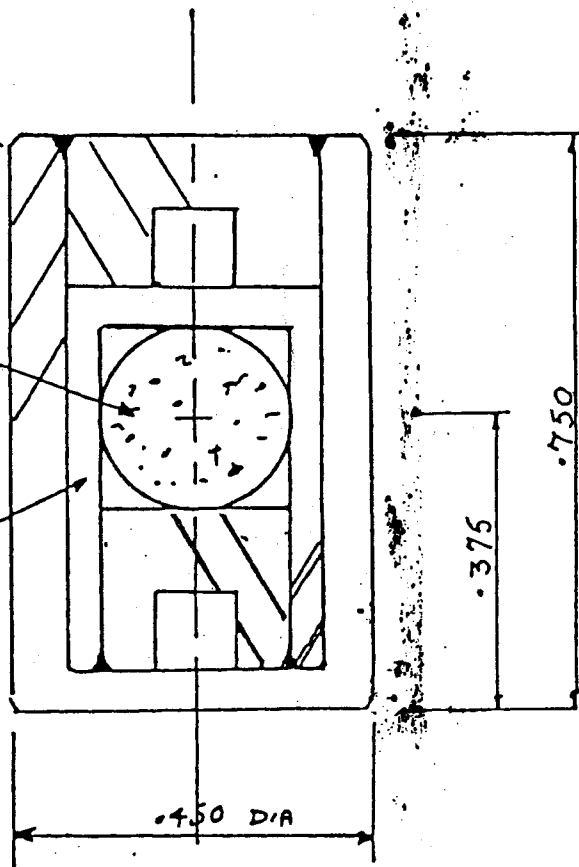
sheath drg A88643

cell A88644

sheath XN 226

ceramic
diameter ≈ 0.22

cell XN 225



Dims inches

Scale 4:1



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ORIGINAL REGISTRANT(S):

Ms. Lori Podolak
Manager, Regulatory Affairs/Quality Assurance
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):

David Huber
Radiation Safety Officer
Baker Hughes Baker Atlas
P. O. Box 670968
Houston, 77267
USA

Mr. Olin A. Nelson
Corporate Assistant Radiation Safety Officer
Tuboscope
2835 Holmes Road (77051)
P.O. Box 808
Houston, 77001
USA

Ms. Elizabeth Foltz
Manager, Global Radiation and Explosives Safety
Halliburton
3000 North Sam Houston Parkway, East
Houston, 77032
USA

Mr. Steve Woods
Global Radiation and Explosives Safety
Halliburton
1015 W Bois D Arc Ave
Duncan, OK 73536

Mr. Neil Walters
Global Radiation and Explosives Safety
Halliburton
3300 N. Sam Houston Parkway East
Houston, TX 77032

Jim Elrod
Radiation Safety Officer
Baker Hughes Baker Atlas
2001 Rankin Road
Houston, TX 77073

Ms. Jill Mead
Global RSO
Halliburton
3000 North Sam Houston Parkway, East
Houston, 77032
USA