



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0803/S-96, REVISION 0**

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 - ORNL ZipCan1.
2. Source Description - An equilateral triangle shaped single encapsulation made of two titanium trays that are tungsten inert gas welded and that has four protruding fill holes on one side that have been cold weld crimped. The capsule also contains a zircon oxide felt and a zircon potting cement. Approximate exterior dimensions are 55 mm (2.2 in.) on each edge and 4 mm (0.154 in.) thick and 13 mm (0.51 in.) thick, including the four cold welds crimped fill holes protrusions. Construction shall be in accordance with attached ORNL Drawing No. N3D020995A417, Rev. 0.
3. Radioactive Contents - No more than one of the following three combinations of radionuclides: 1 "EU") 155.2 Bq (4 nCi) of Uranium-232, 2.01 MBq (54.3 uCi) of Uranium-234, 93 kBq (2.5 uCi) of Uranium-235, 15 kBq (405 nCi) of Uranium-236, 824 Bq (22 nCi) of Uranium-238, and 109 kBq (2.95 uCi) of Holmium-166m; 2 "DU") 200 Bq (5 nCi) of Uranium-235 and 15.5 kBq (419 nCi) of Uranium-238; or 3 "U-233") 2.48 GBq (67 mCi) of Uranium-232 and 445 MBq (12 mCi) of Uranium-233. The Uranium and Holmium are in solid oxide form.
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 September 30, 2019.

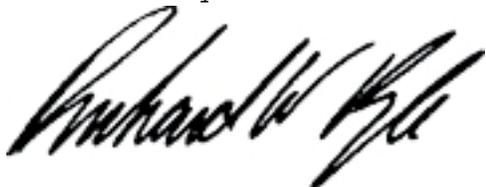
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

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 May 20, 2014 petition by Department of Energy, Washington, DC, and in consideration of other information on file in this Office.

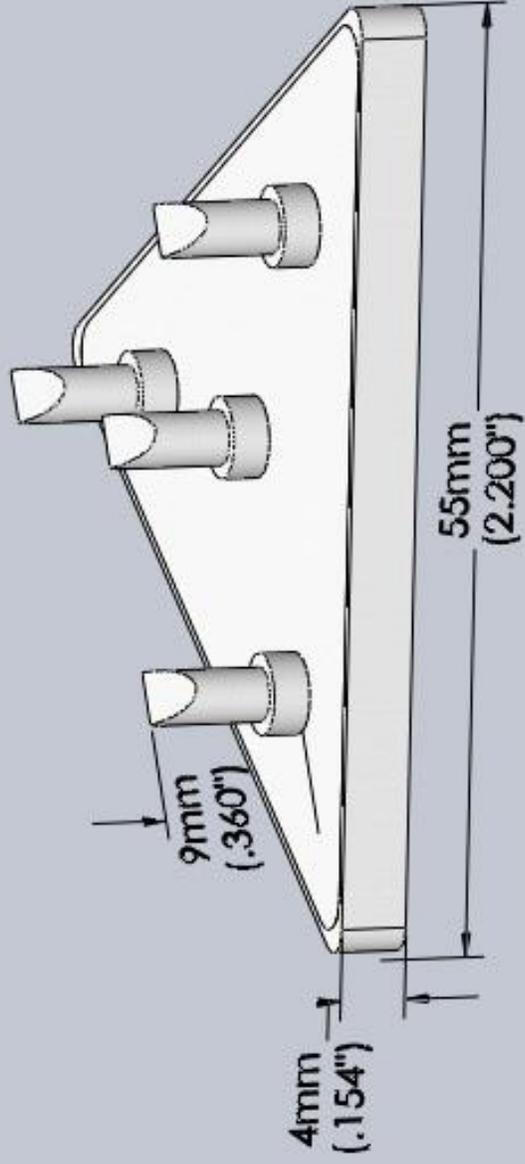
Certified By:



Sep 11 2014
(DATE)

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

Revision 0 - Original issue.



Name: ZipCan 1
ORNL Drawing: N3D020995A417
Revision: 0



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ORIGINAL REGISTRANT(S):

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