Certification

Canadian Nuclear Safety Commission / Commission canadienne de sûreté nucléaire

CANADIAN ENDORSEMENT NO. CDN/E094/-85, (REV. 5) OF UNITED STATES OF AMERICA CERTIFICATE FOR PACKAGE DESIGN APPROVAL NO. USA/9157/B(U)-85, (REV. 5)

30-10-2-140 November 27, 2001

The Canadian Nuclear Safety Commission endorses the U.S. Department of Transportation (USDOT) Type B(U) Package Design Certificate No. USA/9157/B(U)-85, (Rev. 5), subject to the following limitations, terms and conditions.

All users of this authorization shall register their identity in writing with the Canadian Nuclear Safety Commission prior to the first use of this authorization and shall certify that they possess the necessary instructions for preparation of the package for shipment.

This endorsement is valid only in Canada.

PACKAGE IDENTIFICATION

Industrial Nuclear Model IR-100 Radiography Device

PACKAGING DESCRIPTION

The packaging as further described in the USNRC Certificate of Compliance No. 9157, Rev. 8 consists of a rectilinear stainless steel housing in which a depleted uranium shield is braced. A Zircaloy or titanium "S" tube is positioned in the shielding with the source maintained in the "S" tube by means of a locking device and shipping plug. The void between the shield and the housing is filled with a rigid poly urethane foam. The containment system is the special form capsule. The dimensions of the exposure device are 225 mm long by 114 mm wide by 216 mm high and the mass is 24 kg.

The package shall bear the competent authority identification mark "USA/9157/B(U)-85".

AUTHORIZED RADIOACTIVE CONTENTS

This package is authorized to contain not more than 4.4 TBq (120 Ci) output activity[1] of iridium-192 encapsulated within Industrial Nuclear Source Model No. A (pigtail Model 32), Source Production & Equipment Source Model No. G-40F or G-40T, the MDS Nordion Source Model No. C-376, or the AEA Technology Source Model N° 87703.

QUALITY ASSURANCE

The transport of the package shall be in accordance with a quality assurance program as required in IAEA Regulations[2] and as further set out in Certificate No. USA/9157/B(U)-85, (Rev. 5).

SHIPMENT

This package shall be prepared for shipment in accordance with U.S. Nuclear Regulatory Commission Certificate of Compliance Number 9157, (Rev. 8) and the Canadian *Packaging and Transport of Nuclear Substances Regulations*[3].

EXPIRY DATE

This endorsement expires September 30, 2004.

P. Eyre
Designated Officer pursuant
to subsection 37.(2)(a) of the
Nuclear Safety and Control Act

REFERENCES

[1] Output activity is determined in accordance with "American National Stanadards Institute N432-1980, 'Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography'"

[2] International Atomic Energy Agency Safety Series No. 6, *Regulations for the Safe Transport of Radioactive Material*, 1985 Edition (As Amended 1990).

[3] Canadian *Packaging and Transport of Nuclear Substances Regulations*, SOR/2000-208, 31 May, 2000.

NOTES

1. USDOT Certificate USA/9157/B(U)-85, (Rev. 5), attached.
2. Revision 1 : September 25, 1995. Endorsement renewed.
3. Revision 2 : August 11, 1997. Authorized Radioactive Contents revised.
4. Revision 3 : April 20, 1998. Packaging Description and authorized Radioactive Contents revised.
5. Revision 4 : July 26, 2000. Issued to the IAEA 1985 Regulations.
6. Revision 5: November 27, 2001. Authorized Radioactive Contents revised.