



Certified Transport Packages and Special Form Radioactive Material

The Canadian Nuclear Safety Commission (CNSC) regulates the use of nuclear energy and materials to protect the health, safety and security of Canadians and the environment; and to respect Canada's international commitments on the peaceful use of nuclear energy.

Pursuant to the [*Packaging and Transport of Nuclear Substances Regulations*](#), the CNSC is authorized to certify transport package designs, special form radioactive material and low dispersion radioactive material. To achieve this, the CNSC has incorporated into its regulations, the International Atomic Energy Agency's transport regulations, namely the [*Regulations for the Safe Transport of Radioactive Material, 1996 Edition \(Revised\)*](#), No. TS-R-1 (ST-1, Revised).

Two of the most common certified designs in use today are Type B packages and packages designed to contain fissile material. Type B packages contain radioactive material that emit large activities of radiation and must be certified by the CNSC. Examples include packages designed to transport cobalt therapy sources and exposure devices.

The hazards are controlled by the strength of the package, which is designed to pass stringent impact, drop and puncture tests, an engulfing fire test, and immersion in water. Type B packages may be constructed of steel with depleted uranium or lead as shielding. The weight can vary from about 25 kg to 35 tonnes, or more, depending on the radioactive activity of the material it is designed to contain. The shape of the package can also vary.

The CNSC also revalidates package design certificates that are issued by other countries. Occasionally, special arrangements may also be approved by the CNSC, under which consignments that do not satisfy all the applicable requirements may be transported.

What follows is the list of all special form radioactive material and package designs that are certified by the CNSC for use in Canada, as of January 2012.



Valid Special Form Certificates

Certificate Number	Designer/ Manufacturer	Source Model	Issue Date	Expiry Date
CDN/0001/S-73(Rev. 16)	MDS Nordion	Capsule Assemblies listed in Appendix A	2008-05-22	2012-05-31
CDN/0004/S-96(Rev. 10)	MDS Nordion	C-146;C-151 and XC-325 Teletherapy Source Capsules	2010-08-23	2014-09-30
CDN/0009/S-96(Rev. 7)	MDS Nordion	TC-346	2009-07-27	2013-07-31
CDN/0010/S-96(Rev. 8)	MDS Nordion	C-188 Capsule, Types 1 to 13 inclusive	2011-09-08	2016-09-30
CDN/0011/S-73(Rev. 6)	MDS Nordion	C-161 Type 8 Capsule and C-1000 Capsule	2007-06-12	2012-06-30
CDN/0014/S-96(Rev. 5)	MDS Nordion	C-198 Capsule	2011-10-31	2015-10-31
CDN/0015/S-96(Rev. 3)	MDS Nordion	C-168 Capsule	2008-04-09	2012-05-31
CDN/0017/S-96(Rev. 2)	MDS Nordion	C-378 Capsule	2010-05-14	2014-04-30
CDN/0019/S-96(Rev. 2)	MDS Nordion	C-442 Capsule	2011-12-01	2016-11-30
CDN/0020/S-96(Rev. 2)	MDS Nordion	C-352/G6A and C-352/G6B Capsules	2009-08-13	2012-09-30

Canadian Package Design Certificates

Certificate Number	Designer/ Manufacturer	Package Model	Issue Date	Expiry Date
CDN/1002/B(U)-73(Rev. 22)	MDS Nordion	F-327/F-112 and F-327/F-113	2011-03-01	2013-02-28
CDN/1029/B(U)-73(Rev. 16)	MDS Nordion	F-254 and F-296 Source Changers	2010-04-28	2014-04-30
CDN/1035/B(U)-73(Rev. 9)	Spencer	100-3 Radiography Camera, Serial Nos. 1 to 23, 25 to 30, 32, 34 to 45, 47 to 61, 63 to 72, 74 to 78, 80 to 89, 91 to 96, 98 to 102, 104 to 133, and 135 to 146.	2008-03-31	2012-03-31
CDN/1039/B(U)-96(Rev. 6)	MDS Nordion	F-376 Transport Package, Serial Nos. 1 and up	2010-03-23	2014-04-30
CDN/1040/B(U)-73(Rev. 5)	MDS Nordion	TI Radiography Exposure Device, Serial No. D/DB/0005B-22-603	2010-08-11	2014-05-31
CDN/1041/B(U)-85(Rev. 2)	MDS Nordion	F-327/F-448 Transport Package	2008-07-25	2012-10-31
CDN/2003/B(U)-73(Rev. 15)	MDS Nordion	F-143 Transfer Case, Serial Nos. 20, 50, 53, 54, 59, 62, 64; and F-158 Transfer Case, Serial Nos. 3, 4, 5, 6, 8, 9, 10, 14	2008-03-31	2012-03-31
CDN/2005/B(U)-73(Rev. 15)	MDS Nordion	Shipping Containers F-144, Serial Numbers 1, 5, 9; and F-144-AC, Serial No. 3	2010-04-16	2014-05-31
CDN/2008/B(U)-73(Rev. 14)	MDS Nordion/ Best Theratronics	F-127 J-Rod Shipping Container, Serial Numbers 50, 52 and 54	2008-11-17	2012-11-30
CDN/2009/B(U)-73(Rev. 13)	MDS Nordion	F-147 Transfer Case, Serial Nos. 18, 24, 26, 27, 34-36, 39-48, 50, 52, 54, 56-60	2010-11-09	2014-11-30
CDN/2012/B(U)-73(Rev. 22)	MDS Nordion	F-168 Shipping Flask, Serial Nos. 20, 21, 28, 31, 32, 33, 36, 38, 39, 42 to 52, inclusive.	2008-02-05	2012-03-31
CDN/2037/B(U)-96(Rev. 13)	MDS Nordion	F-327/F-247 Transport Package, Serial Nos. 1 to 8, 10, 12, and up	2008-02-04	2012-05-31
CDN/2042/B(U)-96(Rev. 19)	MDS Nordion	F-327/F-245 Transport Packages, Serial Nos. 1 to 5 inclusive, 7 and subsequent	2007-12-10	2012-01-31
CDN/2043/B(U)-96(Rev. 23)	MDS Nordion	F-327/F-251; F-327/F-251 MKII; and F-327/F-318 Transport Packages	2011-07-27	2015-11-30
CDN/2044/B(U)-73(Rev. 10)	MDS Nordion/ Best Theratronics	F-127-X J-Rod Shipping Container, Serial Nos. 49, 51, 53, and 55	2010-02-26	2015-02-28
CDN/2045/B(U)-73(Rev. 17)	MDS Nordion	F-168-X Shipping Flask, Serial Nos. 22-X, 23-X, 24-X, 25-X, 26-X, 41-X	2008-02-06	2012-04-30
CDN/2047/B(U)-73(Rev. 14)	MDS Nordion	F-231, Serial Numbers 7, 8 and 9	2011-03-10	2015-04-30
CDN/2048/B(U)-73(Rev. 7)	MDS Nordion	F-257 Shipping Package, Serial No. 002	2008-08-20	2012-09-30
CDN/2049/B(U)-96(Rev. 9)	Ontario Power Generation	Tritiated Heavy Water Transportation Package	2011-02-15	2015-02-28
CDN/2050/B(U)-73(Rev. 9)	MDS Nordion	F-278 Flask, Serial Nos. 4, 6 and 7 with F-334 Overpack, Serial Nos. 2 and 3	2011-09-28	2012-10-31
CDN/2051/B(U)-96(Rev. 13)	MDS Nordion	F-271 Transport Package, Serial Nos. 1 and up	2010-12-22	2016-01-31
CDN/2052/B(U)-73(Rev. 6)	Ontario Power Generation	Irradiated Fuel Cask, Serial No. IFC-1	2009-07-27	2013-07-31
CDN/2054/B(U)-96(Rev. 6)	Ontario Power Generation	Dry Storage Container (DSC) Transportation Package	2009-01-12	2013-01-31
CDN/2055/B(U)-96(Rev. 8)	MDS Nordion	F-339 Transport Package	2010-06-02	2014-06-30
CDN/2058/B(U)-96(Rev. 8)	Ontario Power Generation	Radioactive Filter Transportation Package (RFTP)	2011-04-29	2015-04-30
CDN/2060/B(U)-85(Rev. 5)	AECL	AECL (CRL) Tritide Package, Serial numbers 2060-01, 2060-02, 2060-03	2010-10-28	2014-10-31



Certificate Number	Designer/ Manufacturer	Package Model	Issue Date	Expiry Date
CDN/2061/B(U)F-85(Rev. 7)	AECL	Irradiated Material Transportation Package	2010-05-11	2014-05-31
CDN/2062/B(U)-96(Rev. 7)	MDS Nordion	F147(96) Transfer Case, Serial Nos. 61 and higher	2011-02-25	2015-02-28
CDN/2065/B(U)-85(Rev. 8)	Best Theratronics	Gammacell 1000 & 3000, (Shipping Models), Serial Nos. 42 to 86 incl.	2011-05-06	2013-03-31
CDN/2067/B(U)-85(Rev. 5)	MDS Nordion	Gammacell 40 MK3 Irradiator, (Shipped in the 20WC-5 Overpack, Serial Numbers 1A, 1B, 2A, 2B, 3A, 3B)	2008-02-06	2012-02-29
CDN/2071/B(U)-96(Rev. 7)	Ontario Power Generation	Roadrunner, Serial No. Roadrunner-01	2008-09-24	2012-09-30
CDN/2072/B(U)-96(Rev. 6)	MDS Nordion	F-127, F-127-X and RAI/F-127 Transport Packages, Serial Numbers 59 and up	2008-04-10	2012-04-30
CDN/2076/B(U)-96(Rev. 8)	MDS Nordion	F-430/GC-40; F-430/GC-1000 and GC-3000; F-430/CIS model IBL 437C; F-430/CIS model IBL 637; F-430/Molsgaard model GC-2000; and F-430/Gammator M38	2011-02-03	2015-02-28
CDN/2077/B(U)-96(Rev. 3)	MDS Nordion	F-231 and F-231-MK2, Serial Nos. 11 and up	2007-10-29	2012-11-30
CDN/2078/B(U)-96(Rev. 4)	MDS Nordion	F-458/F-245; F-247; F-251; F-251 MK2; F-318 and F-448	2011-07-08	2015-10-31
CDN/2080/B(U)-96(Rev. 2)	MDS Nordion	F-168/F-444 Transport Container	2010-04-16	2014-11-30
CDN/2081/B(U)-96(Rev. 2)	MDS Nordion	F-168 (1996) and F-168-X (1996), Serial Nos. 53 and up	2007-12-04	2012-11-30
CDN/2083/B(U)-96(Rev. 3)	MDS Nordion	F-431/GC-1000; F-431/GC-3000 and F-431/Gammator M38	2008-02-28	2012-11-30
CDN/2084/B(U)-96(Rev. 1)	Best Theratronics	F-423 Transport Package	2010-06-14	2015-06-30
CDN/2085/B(U)-96(Rev. 1)	MDS Nordion	F-294 Transport Package	2008-05-01	2012-06-30
CDN/2086/B(U)-96(Rev. 1)	MDS Nordion	GammaMat TSI 3; TSI 3/1; TSI 5 and TSI 5/1	2009-01-26	2014-03-31
CDN/2087/B(U)-96(Rev. 1)	Ontario Power Generation	Multi-Purpose Transportation Package (MPTP, MPTP-1, MPTP-2)	2009-09-30	2013-09-30
CDN/2088/AF-96(Rev. 0)	Bruce Power	LVERF	2009-08-13	2013-08-31
CDN/2090/ B(U)-96(Rev. 1)	MDS Nordion	GammaMat M10 and GammaMat M18	2010-12-14	2014-11-30
CDN/3012/B(M)-96(Rev. 10)	MDS Nordion	F-279 Shipping Flask	2010-09-17	2014-09-30
CDN/4212/B(U)F 73(Rev. 10)	AECL	Model 4H Enriched Fuel Bundle Shipping Package, Serial Numbers 1 to 8 inclusive	2009-06-19	2013-04-30
CDN/5198/X-96(Rev. 4)	N/A	Type "A" Packaging	2011-11-24	2014-11-30
CDN/5255/X-96(Rev. 0)	Bruce Power	Unit 1 and 2 steam generators	2011-02-04	2012-02-03
CDN/5258/X-96(Rev. 1)	Nordion Inc.	F-168 (96)	2011-09-23	2012-11-30



Canadian Revalidation of Package Design Certificates

Certificate Number	Designer/ Manufacturer	Package Model	Issue Date	Expiry Date
CDN/E030/-96(Rev. 16)	QSA Global Inc.	741-OP Gamma Ray Projector	2011-06-07	2015-10-31
CDN/E033/-96(Rev. 15)	QSA Global Inc.	680-OP Exposure Device	2010-12-09	2015-10-31
CDN/E044/-96(Rev. 19)	SPEC	C-1 Source Changer [MDS Nordion F-365]	2011-10-14	2016-10-31
CDN/E094/-85(Rev. 9)	INC	IR-100 Radiography Device	2010-04-01	2014-10-31
CDN/E095/-85(Rev. 2)	QSA Global Inc.	770 Source Changer, Serial No. 12	2008-03-19	2013-03-31
CDN/E130/-73(Rev. 9)	N/A	Cylinder Model Nos. 5A, 5B, 8A, 12A, 12B, 30B, 48A, 48F, 48X, or 48Y	2011-08-25	2016-09-01
CDN/E140/-73(Rev. 9)	Advanced Nuclear Fuel Corp.	ANF-250 Shipping Container	2010-09-30	2015-06-30
CDN/E150/-96(Rev. 21)	Energy Solutions	UX-30	2011-06-23	2016-02-28
CDN/E153/-96(Rev. 7)	REVISS	R7006	2010-07-15	2014-08-31
CDN/E160/-85(Rev. 6)	BMX Industries	5X22	2010-02-01	2014-10-31
CDN/E170/-96(Rev. 4)	SPEC	SPEC-150 Exposure Device	2010-06-24	2015-06-30
CDN/E172/-96(Rev. 8)	MDS Nordion	NE4C	2011-04-20	2012-06-30
CDN/E173/-96(Rev. 4)	NAC Int'l, Inc.	NAC-LWT Shipping Container	2010-06-01	2015-02-28
CDNE/175/-96(Rev. 5)	QSA Global Inc.	650L Source Changer	2010-10-28	2014-10-31
CDN/E177/-96(Rev. 7)	Transnucléaire	TN-BGC1 Transport Package	2010-11-24	2013-08-31
CDN/E183/-96(Rev. 5)	QSA Global Inc.	OPL-660 and OP-660 Transport Containers	2010-02-25	2013-06-30
CDN/E185/-96(Rev. 4)	QSA Global Inc.	COG-OP-30B Overpack	2011-10-05	2012-05-31
CDN/E189/-96(Rev. 4)	Energy Solutions	10-160B Cask: Serial Nos. Trillium TP-01 and TP-02	2010-10-29	2015-10-31
CDNE/192/-96(Rev. 7)	Global Nuclear	BU-D Transport Container	2009-07-14	2014-01-31
CDN/E193/-96(Rev. 2)	SPEC	SPEC-300 Radiography Camera	2010-04-23	2015-04-30
CDN/E195/-96(Rev. 5)	SKODA-UJP	UKI-4-135 Source Changer	2011-08-22	2012-02-22
CDN/E197/-96(Rev. 2)	NTP Radioisotopes	ERIKA Transport Package	2009-10-02	2014-10-12
CDN/E199/-96(Rev. 11)	QSA Global Inc.	880 Delta; 880 Sigma and 880 Elite	2011-09-28	2016-06-30
CDN/E201/-96(Rev. 2)	Cameco	48X and 48Y Cylinders	2011-08-17	2016-09-01
CDN/E202/-96(Rev. 2)	Global Nuclear	RAJ-III	2009-02-20	2013-09-10
CDN/E204/-96(Rev. 3)	GE Healthcare Ltd	3605D	2007-04-26	2012-03-31
CDN/E207/-96(Rev. 4)	Global Nuclear Fuel	NPC Transport Package	2010-12-01	2015-11-30
CDN/E213/-96(Rev. 4)	CROFT	SAFSHIELD 2773A Transport Package	2010-09-30	2015-06-30
CDN/E216/-96(Rev. 3)	Westinghouse	Traveller STD and Traveller XL Package	2010-03-29	2015-03-31
CDN/E217/-96(Rev. 2)	QSA Global Inc.	976A Shield Container	2010-04-08	2014-07-31
CDN/E218/-96(Rev. 2)	REVISS	R7008	2009-08-26	2014-05-31
CDN/E219/-96(Rev. 1)	Oak Ridge Y-12 National Security Complex	ES-3100	2011-06-28	2014-09-30
CDN/E224/-96(Rev. 0)	NTP Radioisotopes	JANE Transport Container	2009-01-08	2013-01-02
CDN/E226/-96(Rev. 0)	Areva	TN-55	2008-09-29	2012-04-30

Certificate Number	Designer/ Manufacturer	Package Model	Issue Date	Expiry Date
CDN/E229/-96(Rev. 1)	Global Nuclear	RAJ-II	2010-01-27	2014-11-30
CDN/E230/-96(Rev. 1)	Transnucléaire	COG-OP-30B	2011-10-19	2012-05-31
CDN/E231/-96(Rev. 1)	Transnucléaire	COG-OP-30B	2011-10-19	2012-05-31