

Excepted Package

(Please refer AERB/NRF-TS/SC-1 (Rev.1) Safe Transport of Radioactive Material 2016, for the respective clauses)

A) Classification as an Excepted Package

A package may be classified as an excepted package if it meets one of the following conditions:

- a) It is an empty package having contained radioactive material
- b) It contains instruments or articles not exceeding the activity limits specified in Table-V
- c) It contains articles manufactured of natural uranium, depleted uranium or natural thorium
- d) It contains radioactive material not exceeding the activity limits specified in Table-V
- e) It contains less than 0.1 kg of uranium hexafluoride not exceeding the activity limits specified in column 4 of Table-V.

TABLE-V
ACTIVITY LIMITS FOR EXCEPTED PACKAGES

Physical State of Contents	Instrument or Article		Materials Package Limits ^a
	Item Limits ^a	Package Limits ^a	
Solids:			
Special form	$10^{-2} A_1$	A_1	$10^{-3} A_1$
Other forms	$10^{-2} A_2$	A_2	$10^{-3} A_2$
Liquids:	$10^{-3} A_2$	$10^{-1} A_2$	$10^{-4} A_2$
Gases:			
Tritium	$2 \times 10^{-2} A_2$	$2 \times 10^{-1} A_2$	$2 \times 10^{-2} A_2$
Special form	$10^{-3} A_1$	$10^{-2} A_1$	$10^{-3} A_1$
Other forms	$10^{-3} A_2$	$10^{-2} A_2$	$10^{-3} A_2$

^a For mixtures of radionuclides, see clauses 3.3.3 to 3.3.5

B) Restrictions on Contents of an Excepted Packages

- 1) Radioactive material that is enclosed in or is included as a component part of an instrument or other manufactured article, may be classified under UN 2911, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE — INSTRUMENTS OR ARTICLES, provided that:
 - a) The radiation level at 10 cm from any point on the external surface of any unpackaged instrument or article is not greater than 0.1 mSv.h^{-1} . Each instrument or article bears the marking 'RADIOACTIVE' on its external surface except for the following:
 - i) Radio-luminescent timepieces or devices do not require markings.
Consumer products that have either received regulatory approval or do not individually exceed the activity limit for an exempt consignment in Table-I

(column 5) do not require markings, provided that such products are transported in a package that bears the marking 'RADIOACTIVE' on its internal surface in such a manner that a warning of the presence of radioactive material is visible on opening the package.

ii) Other instruments or articles too small to bear the marking 'RADIOACTIVE' do not require markings, provided that they are transported in a package that bears the marking 'RADIOACTIVE' on its internal surface in such a manner that a warning of the presence of radioactive material is visible on opening the package.

b) The active material is completely enclosed by non-active components (a device performing the sole function of containing radioactive material shall not be considered to be an instrument or manufactured article).

The limits specified in columns 2 and 3 of Table-V are met for each individual item and package, respectively.

For transport by post, the total activity in each excepted package shall not exceed one tenth of the relevant limits specified in column 3 of Table-V.

Radioactive material in forms other than as specified in clause 5.5.2.1 and with an activity not exceeding the limits specified in column 4 of Table-V may be classified under UN 2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE — LIMITED QUANTITY OF MATERIAL, provided that:

The package retains its radioactive contents under routine conditions of transport.

The package bears the marking 'RADIOACTIVE' on either:

an internal surface in such a manner that a warning of the presence of radioactive material is visible on opening the package; or

the outside of the package, where it is impractical to mark an internal surface.

For transport by post, the total activity in each excepted package shall not exceed one tenth of the relevant limits specified in column 4 of Table-V.

- 2) Articles manufactured of natural uranium, depleted uranium or natural thorium and articles in which the sole radioactive material is unirradiated natural uranium, unirradiated depleted uranium or unirradiated natural thorium may be classified under UN 2909, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE — ARTICLES MANUFACTURED FROM NATURAL URANIUM or DEPLETED URANIUM or NATURAL THORIUM, provided that the outer surface of the uranium or thorium is enclosed in an inactive sheath made of metal or some other substantial material.
- 3) An empty packaging that had previously contained radioactive material may be classified under UN 2908, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE — EMPTY PACKAGING, provided that:
 - a) It is in a well-maintained condition and securely closed.
 - b) The outer surface of any uranium or thorium in its structure is covered with an inactive sheath made of metal or some other substantial material.
 - c) The level of internal non-fixed contamination does not exceed 100 times the levels specified in clause 6.5.1. of AERB/SC/TR-1, 2016
 - d) Any labels that may have been displayed on it in conformity with the applicable labelling requirements specified in clause 6.13.3.1 are no longer visible. AERB/SC/TR-1, 2016

C) Requirements for design of Excepted Package

For the design of an excepted package, the general requirements for all packages and, if carried by air, the additional requirements for packages transported by air