

Requirements for the Import and Export of Category 1 and Category 2 Radioactive Sources

Radiation Health Division
Department of Health

Import and export of radioactive sources into Hong Kong is under the control of the Radiation Ordinance (Cap 303) and the Import (Radiation)(Prohibition) Regulations (Cap 60k). The radioactive sources shall be covered by a valid radioactive substance licence issued by the Radiation Board and an import licence (for import) issued by the Director General of Trade and Industry.

With effective from January 2007, import and export of radioactive materials under Category 1 and Category 2 (please refer to the definitions below) of the International Atomic Energy Agency (IAEA) categorization system should also conform to the IAEA “Code of Conduct on the Safety and Security of Radioactive Sources” as well as “the Guidance on the Import and Export of Radioactive Sources”.

The aims of the IAEA Code and Guidance are:

- a) to achieve and maintain a high level of safety and security of radioactive source;
- b) to prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources or the malicious use of such sources to cause harm to individuals, society or the environment; and
- c) mitigate or minimize the radiological consequences of any accident or malicious act involving a radioactive source

The following paragraphs summarised the requirements and application procedures for import and export of radioactive materials under the new IAEA classification systems. Detail information

can also be found in the Radiation Health Division Web Pages at <https://www.rhd.gov.hk/>.

Enquires for can be made to:

Radiation Health Division
3/F., Sai Wan Ho Health Centre
28 Tai Hong Street, Sai Wan Ho,
Hong Kong

Telephone :

Import	3620 3674
Export	3620 3654
Import licence	3620 3814
Removal Permit	3620 3746

Fax : 2834 1224

e-mail : rhd@dh.gov.hk

Definition

Category 1 Radioactive Sources:

refer to radioactive sources of radioactivities larger than or equal to the values given in column A of Table 1

Category 2 Radioactive Sources:

refer to radioactive sources of radioactivities greater than or equal to the value given in Column B but less than the value given in Column A of Table 1

Import Requirements and Procedures for Category 1 or Category 2 Radioactive Sources

1. you should have a valid radioactive substance licences or exemption from the Radiation Board for the imported radioactive sources
2. you should have a valid import licence for the imported radioactive sources (import licence should be applied prior to shipment of the radioactive sources)
3. if radioactive sources are for re-export, a copy of the documents for export are available for assessment (please see Export Procedure below)
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5. if radioactive sources are for re-export, a copy of the documents for export are available for assessment (please see Export Procedure below)
6. Confirmation that transport of the radioactive sources conform to IAEA Transport Regulations
7. Apply for Removal Permit for conveyance of the radioactive sources if applicable

Export requirements and procedures for Category 1 or Category 2 Radioactive Sources

1. Submit request for Export of Radioactive sources through Removal Permit application
2. You should attach with your application a consent letter issued from the recipient country. The consent letter shall include the following information:
 - Name of the recipient
 - Recipient legal address
 - Radionuclides and radioactivity
3. Confirm the radioactive sources are conducted in accordance with IAEA Transport Regulation
4. If application is approved, you should inform the Radiation Board at least 7 working days in advanced of shipment.

Table 1

Category 1: Radioactivity (TBq) greater than or equal to the value given in Column A

Category 2: Radioactivity (TBq) greater than or equal to the value given in Column B but less than the value given in Column A

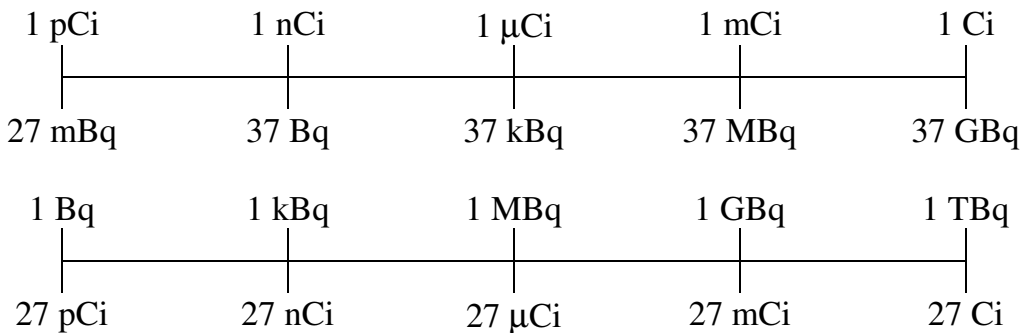
Radionuclide	A (TBq)	B (TBq)
Am-241	60	0.6
Au-198	200	2
Ba-133	200	2
C-14	50000	500
Cd-109	20000	200
Ce-141	1000	10
Ce-144	900	9

Radionuclide	A (TBq)	B (TBq)
Cf-252	20	0.2
Cl-36	20000	200
Cm-242	40	0.4
Cm-244	50	0.5
Co-57	700	7
Co-60	30	0.3
Cr-51	2000	20
Cs-134	40	0.4
Cs-137	100	1
Eu-152	60	0.6
Eu-154	60	0.6
Fe-55	800000	8000
Fe-59	Unlimited	Unlimited
Ga-67	Unlimited	Unlimited
Gd-153	1000	10
Ge-68	700	7
H-3	2000000	20000
Hg-203	300	3
I-125	200	2
I-129	Unlimited	Unlimited
Kr-85	30000	300
Mo-99 (Tc-99m)	300	3
Nb-95	90	0.9
Nb-95	90	0.9
Ni-63	60000	600
Np-237	70	0.7
P-32	10000	100
Pd-103	90000	900
Pm-147	40000	400
Po-210	60	0.6
Pu-238	60	0.6
Pu-239	60	0.6
Pu-239/Be	60	0.6
Pu-240	60	0.6
Pu-241	3000	30
Pu-242	70	0.7
Ra-226	40	0.4
Re-188	1000	10
Ru-103	100	1
Ru-106	300	3
S-35	60000	600
Se-75	200	2
Sr-89	20000	200
Sr-90 (Y-90)	1000	10
Tc-99m	700	7
Te-132	30	0.3

Radionuclide	A (TBq)	B (TBq)
Th-230	70	0.7
Th-232	Unlimited	Unlimited
Tl-201	Unlimited	Unlimited
Tl-204	20000	200
Tm-170	20000	200
U (Depleted)	Unlimited	Unlimited
U (Enriched > 10%)	0.8	0.008
U (Enriched > 20%)	0.08	0.0008
U (Natural)	Unlimited	Unlimited
U-232	60	0.6
U-235	0.08	0.0008
U-238	Unlimited	Unlimited
Xe-133	Unlimited	Unlimited
Y-88	Unlimited	Unlimited
Y-90	5000	50
Y-91	8000	80
Yb-169	300	3
Zn-65	100	1
Zr-95	40	0.4

Radioactivity Unit Conversion Table

	1 μ Bq	1 mBq	1 Bq	1 kBq	1 MBq	1 GBq	1 TBq
μ Bq	1	10^3	10^6	10^9	10^{12}	10^{15}	10^{18}
mBq	10^{-3}	1	10^3	10^6	10^9	10^{12}	10^{15}
Bq	10^{-6}	10^{-3}	1	10^3	10^6	10^9	10^{12}
kBq	10^{-9}	10^{-6}	10^{-3}	1	10^3	10^6	10^9
MBq	10^{-12}	10^{-9}	10^{-6}	10^{-3}	1	10^3	10^6
GBq	10^{-15}	10^{-12}	10^{-9}	10^{-6}	10^{-3}	1	10^3
TBq	10^{-18}	10^{-15}	10^{-12}	10^{-9}	10^{-6}	10^{-3}	1



$$10^{-3} = 0.001$$

$$10^3 = 1000$$

$$10^{-6} = 0.000001$$

$$10^6 = 1000000$$

$$10^{-9} = 0.000000001$$

$$10^9 = 1000000000$$