

# **Code of Practice for the Safe Transport of Radioactive Material**

ORS C6

2019

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# Introduction

## Purpose and commencement

This Code of Practice for the Safe Transport of Radioactive Material is issued by the Director for Radiation Safety under section 86 of the Radiation Safety Act 2016. It provides operational details on compliance with section 12 of the Act, which relates to the safe transport of radioactive material. The requirements in this code do not limit the general nature of section 12 of the Act. This code comes into force on 29 April 2019.

## Scope

This code applies to the safe transport of radioactive material by road, rail, sea and air. This includes the design, manufacture, maintenance and repair of packaging and the preparation, consigning, loading, carriage including in-transit storage, shipment after storage, unloading and receipt at the final destination of loads of radioactive material and packages.

This code does not apply to:

- security of radioactive material in transport
- radioactive material that is an integral part of the means of transport
- radioactive material moved within an establishment that is subject to appropriate safety regulations in force in the establishment and where the movement does not involve public roads or railways
- radioactive material implanted or incorporated into a person or live animal for diagnosis or treatment
- transport for medical treatment of a person who has been subject to an intake of radioactive material or to contamination
- radioactive material in consumer products that have received regulatory approval, following their sale to the end user
- natural material and ores containing naturally occurring radionuclides, which may have been processed, provided the activity concentration of the material does not exceed values set out in the International Atomic Energy Agency (IAEA) Transport Regulations
- non-radioactive solid objects with radioactive substances present on any surface in quantities not in excess of the levels defined in the IAEA Transport Regulations.

# Contact

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# Key roles

The following individuals and bodies have roles and responsibilities in relation to this code.

**Carrier** – any person, organisation or government undertaking the carriage of radioactive material by any means of transport. This includes both carriers for hire or reward and carriers on their own account

**Consignee** – any person, organisation or government that is entitled to take delivery of a consignment

**Consignor** – any person, organisation or government that prepares a consignment for transport

**Office of Radiation Safety** – competent authority under the IAEA Transport Regulations

# Definitions

Defined terms are identified in **bold** and have the following meanings.

**IAEA Transport Regulations** – the latest edition of the Regulations for the Safe Transport of Radioactive Material issued by the International Atomic Energy Agency as No. SSR-6<sup>1</sup>

**LSA-I material** – low specific activity material specified in paragraph 409(a) of the IAEA Transport Regulations

**Relevant transport regulations for dangerous goods** – the Land Transport Rule: Dangerous Goods 2005, issued by NZ Transport Agency; Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods, issued by Maritime New Zealand; Civil Aviation Authority Rule Part 92, Carriage of Dangerous Goods, issued by the Civil Aviation Authority of New Zealand

**SCO-I** – surface contaminated object specified in paragraph 413(a) of the IAEA Transport Regulations

**SCO-III** – surface contaminated object specified in paragraph 413(c) of the IAEA Transport Regulations

**UN Number** – a number specified in column 1, table 1 of the IAEA Transport Regulations to be assigned to radioactive material

This code also adopts terms defined in paragraphs 201–249 of the IAEA Transport Regulations.

<sup>1</sup> The 2018 edition is available here [https://www-pub.iaea.org/MTCD/Publications/PDF/PUB1798\\_web.pdf](https://www-pub.iaea.org/MTCD/Publications/PDF/PUB1798_web.pdf)

# Obligations

## Consignor

1. The consignor must ensure that the requirements in paragraphs 109–110, 301–306, 309–315, 401–434, 501–511, 514–562, 566–568, 570–573, 575–576, 580–581, 586, 602–686, 701–737, 801–803, 805, 807(a)–(c), 808–809, 811–812, 814–815, 817, 819–825, 827–827A and 829–830 of the IAEA Transport Regulations are complied with as they relate to the consignor’s preparation of consignments for transport.

## Carrier

2. The carrier must ensure that:
  - a) the requirements in paragraphs 109–110, 301–306, 309–315, 504–514, 520, 522–525, 529(c), 537–540, 543–544, 562–570, 573–579, 583–588 and 627–630 of the IAEA Transport Regulations are complied with as they relate to the carrier’s carriage of radioactive material for transport
  - b) vehicles carrying packages, overpacks or freight containers labelled with any of the labels shown in Figures 2–5 of the IAEA Transport Regulations, or carrying unpackaged LSA-I material, SCO-I or SCO-III display the placard shown in Figure 6 of the IAEA Transport Regulations on each of:
    - i) the two external lateral walls in the case of a rail vehicle
    - ii) the external front and rear walls in the case of a road vehicle
  - c) for vehicles without sides:
    - i) the placards required in clause 2(b) may be affixed directly on the cargo carrying unit, provided that they are readily visible
    - ii) the placards on the tanks or freight containers shall suffice for large tanks or freight containers
    - iii) the dimensions of the placard described in Figure 6 of the IAEA Transport Regulations may be reduced to 100 mm for vehicles that have insufficient area to allow the fixing of larger placards
    - iv) any placards that do not relate to the contents are removed
  - d) where the consignment in or on the vehicle is unpackaged LSA-I material, SCO-I or SCO-III, or where a consignment is required to be shipped under exclusive use and is packaged radioactive material with a single UN number, the appropriate UN number (see Table 1 of the IAEA Transport Regulations) shall also be displayed, in black digits not less than 65 mm high, either:



- i) in the lower half of the placard shown in Figure 6 of the IAEA Transport Regulations, against the white background, or
  - ii) on the placard shown in Figure 7 of the IAEA Transport Regulations
- e) when the alternative in clause 2(d)(ii) is used, the subsidiary placard is affixed immediately adjacent to the main placard, either on the two external lateral walls in the case of a rail vehicle or on the external front and rear walls in the case of a road vehicle.

## Consignee

3. The consignee must ensure that the requirements in paragraphs 309 and 311–315 of the IAEA Transport Regulations are complied with as they relate to the consignee taking delivery of consignments.