

Dangerous Goods Regulatory System Map



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Executive summary

1. This Dangerous Goods (DGs) Regulatory System Map describes the components of the current regulatory system for managing DGs across the transport system, including interactions between those components. Its objective is to outline the nature of the system to support future work to identify possible issues, overlaps, gaps and risks. The map is not intended to be a comprehensive guide to DGs requirements for industry operators.
2. DGs are substances internationally classified as potentially dangerous during transport. Consequently, international and associated domestic regulatory frameworks have been established with requirements to ensure DGs' safe and effective transport. These comprise:
 - the overarching international framework of the United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations (UN Model Regulations), under which DGs are classified and regulated at the highest level
 - international frameworks referencing the UN Model Regulations, regulating transport of DGs in the aviation and maritime sectors, including the:
 - International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air; International Air Transport Association Dangerous Goods Regulations
 - International Maritime Organisation's International Maritime Dangerous Goods Code
 - domestic transport frameworks comprising legislation covering each of the transport modes (air, sea and land) including overarching Acts, dedicated rules containing much of the detail for regulating DGs, and regulations including offences and penalties as follows:
 - Civil Aviation Act 1990, Maritime Transport Act 1994, Land Transport Act 1998, their associated offences regulations, and the Railways Act 2005
 - Civil Aviation Rules Part 92: Carriage of Dangerous Goods; Advisory Circulars under Rules Part 92
 - Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods
 - Land Transport Rule: Dangerous Goods 2005 (45001/1)
 - Land Transport (Driver Licensing) Rule 1999 (SR1999/100)
 - NZ Standard 5433:2020 Transport of dangerous goods on land.
3. This document outlines each of the components above. This includes the DGs specific sections of the transport Acts, the nature of the DGs rules and supporting material, and the offences and penalties that might apply to requirements, whether DGs-specific or more general within overarching Acts.
4. The domestic regulatory framework for DGs also includes overlapping frameworks outside the transport sector. These overlapping frameworks and their interaction with the transport frameworks are also covered. These notably include frameworks regulating hazardous substances, which, apart from substances classified as

infectious, radioactive and some miscellaneous substances, overlap with substances classified as DGs. These frameworks include the:

- Hazardous Substances and New Organisms Act 1996 (HSNO), which aims to protect the environment and people's health and safety from the adverse effects of hazardous substances. HSNO manages hazardous substances across their whole 'lifecycle', including transport. DGs, apart from those listed above, must first be approved under HSNO before they can be imported or manufactured.
 - Health and Safety at Work Act 2015 (HSWA), which sets out principles, duties and rights regarding workplace health and safety. The Health and Safety at Work (Hazardous Substances) Regulations 2017 set requirements for the use, handling and storage of hazardous substances in New Zealand workplaces.
5. Specific DGs-related duties and requirements in the transport rules sit within a broader context of more general duties and requirements, for example to operate safely, in the transport Acts, HSNO and HSWA. This means that contravening a DG-related duty or requirement in a rule might also contravene a more general duty in a transport-related or other Act. It might also lead to consequences under other rules or Acts, such as removing an authority to operate. Thus, the transport and overlapping frameworks work together at various levels to help ensure both DGs-specific and related general requirements are being met.
6. This document also outlines the roles and responsibilities of key government DGs regulatory system participants. These include core government and regulatory agencies in the transport sector and other government agencies operating in overlapping frameworks including:
- Ministry of Transport
 - Civil Aviation Authority
 - Maritime New Zealand
 - Waka Kotahi NZ Transport Agency
 - New Zealand Police
 - Environmental Protection Authority
 - WorkSafe
 - Office of Radiation Safety (Ministry of Health)
 - Medsafe (Ministry of Health)
 - Ministry of Health (Communicable Diseases)
 - Ministry for Primary Industries
 - Regional and territorial authorities.
7. Also relevant to the domestic regulatory DGs framework are other more peripheral overlapping frameworks in the health, biosecurity and resource management sectors. Legislation forming these frameworks is relevant to managing particular DGs such as radioactive material and infectious substances, among others, under the following legislation (covered in Appendix A):
- Radiation Safety Act 2016
 - Medicines Act 1981
 - Health Act 1956
 - Biosecurity Act 1993, Agricultural Compounds and Veterinary Medicines Act 1997, Animal Control Products Limited Act 1991 Animal Products Act 1999
 - Resource Management Act 1991.

Purpose

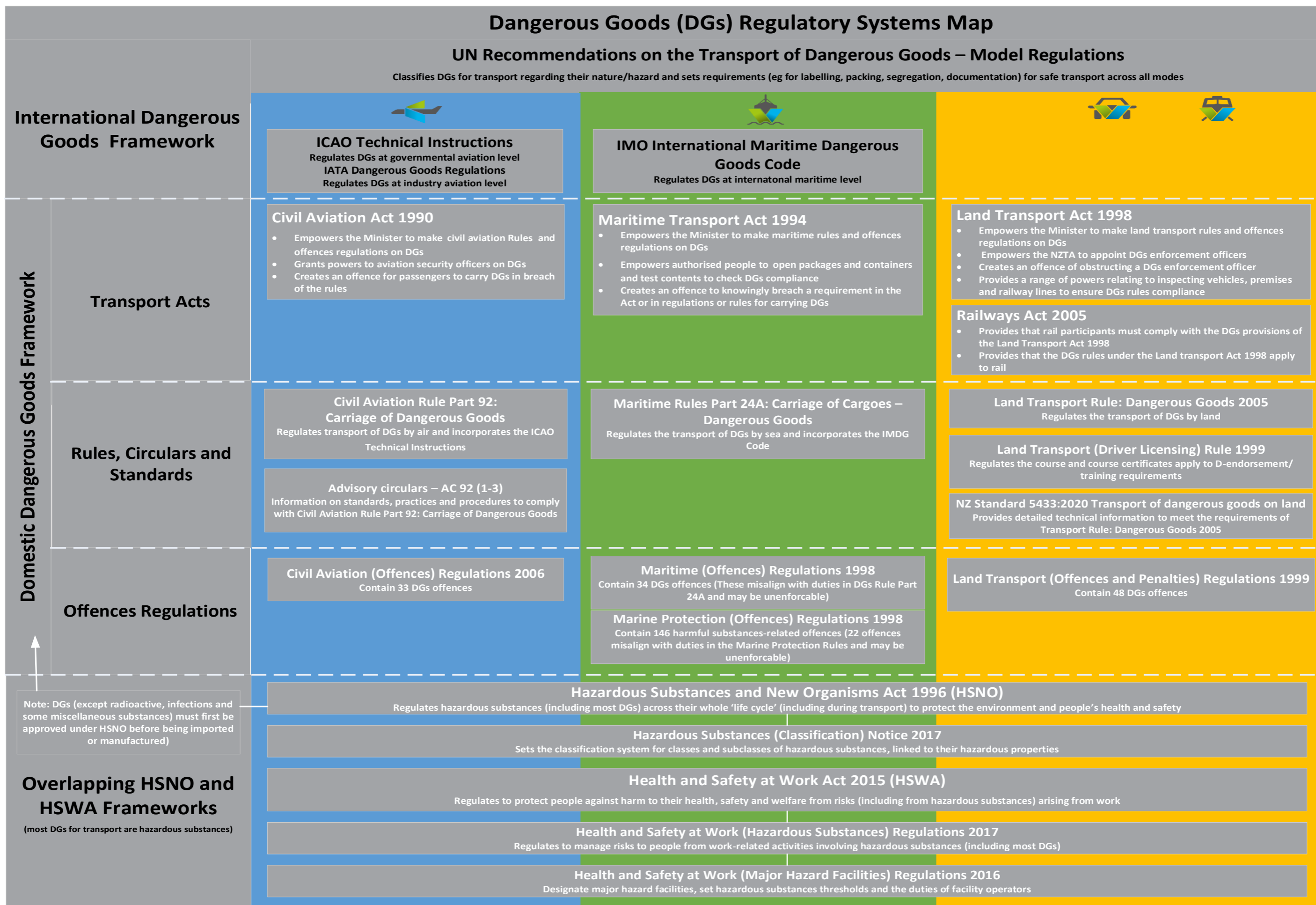
8. The purpose of this Dangerous Goods (DGs) Regulatory System map is to set out the regulatory system for managing DGs across the transport system. It outlines how international frameworks inform our domestic framework and describes the domestic DGs framework across transport modes. Further, it links to other relevant, and sometimes overlapping domestic regulatory frameworks outside the transport sector.
9. The document sets out the DGs regulatory system and interactions across its frameworks, but does not attempt to analyse the differing frameworks across transport modes or outside the transport sector. It presents a 'picture' of the DGs regulatory system to help clarify its nature, aiming to support further work to identify possible issues, overlaps, gaps and risks in the system. The map is not intended to be a comprehensive guide to DGs requirements for industry operators.

Introduction

10. DGs are substances or articles with hazardous properties which, if not properly controlled during transport, present potential hazards to health, safety and the natural or built environment and anything in it. Within international frameworks for managing hazardous substances, the term 'DGs' refers to items that are potentially dangerous specifically during transportation and this term is used in New Zealand transport legislation. The term 'hazardous substances' is used for many of the same substances in legislation in the environmental and workplace sectors, for example in the Hazardous Substances and New Organisms Act 1996 (HSNO) and Health and Safety at Work Act 2015 (HSWA).
11. DGs include a wide range of solids, liquids and gases that have explosive, flammable, toxic, infectious, radioactive, corrosive, environmentally hazardous (ecotoxic) or other hazardous properties. They consequently have special transport requirements to ensure they are managed safely, to eliminate or minimise the risk of adverse outcomes.
12. DGs pose particular risks during transportation. This is because of their hazardous properties and the potential for catastrophic harm to people, animals, the environment, infrastructure, or vehicles due to risks arising from stress to the integrity and containment of DGs from transportation. Transporting DGs also includes potentially transporting them together with passengers, through densely populated or environmentally delicate areas, or near infrastructure.
13. Further, transportation involves moving DGs across transport modes under different regulatory systems in the air, at sea, or on land. However, to be safe and effective the whole DGs regulatory system should function in an integrated way.
14. Requirements for transporting DGs have some broad similarities across air, sea and land regarding classification of substances, and the need for appropriate measures including packaging, labelling, handling, separation, stowage and inspection. However, there are also important differences in requirements for transporting DGs across transport modes. These differences arise to address interaction between the nature of the transport modes and the substances' themselves (for example, explosive substances pose particular risks in aircraft).

15. This context is particularly important in New Zealand where many goods travel across more than one mode, given our country comprises separate islands. Transport between the North and South Islands involves land and either air or sea transport. We also rely on international travel across modes for business and personal reasons. Transitions across modes presents one of the key risks and potentials for regulatory gaps in transporting DGs.
16. In line with the above context, transporting DGs is controlled and governed by a variety of international and national regulatory frameworks. Prominent international frameworks include the:
 - United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations (UN Model Regulations)
 - International Civil Aviation Organization’s Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions)
 - International Air Transport Association Dangerous Goods Regulations (IATA Regulations)
 - International Maritime Organisation’s International Maritime Dangerous Goods Code (IMDG Code).
17. New Zealand’s national regulatory framework for transporting DGs references these international frameworks via a variety of Acts, regulations and rules across the transport modes. Collectively, and together with the relevant overlapping regulatory systems outside the transport sector, these regulatory regimes mandate the system by which DGs are to be appropriately managed.
18. This regulatory system is represented diagrammatically on the next page, with more detail on the individual components provided in this document.
19. The document focusses on presenting the domestic transport-related DGs regulatory framework. However, it is important to acknowledge that effectively, that framework operates under the requirements of the hazardous substances framework under HSNO. This is because most DGs (except infectious, radioactive and some miscellaneous substances) must be approved under HSNO before being imported or manufactured. Further, assessment under HSNO requires assessment of the complete ‘lifecycle’ of the substance through import/manufacture, transport, use and disposal.

DGs Regulatory Systems Map Diagram














Note: DGs (except radioactive, infections and some miscellaneous substances) must first be approved under HSNO before being imported or manufactured)

International DGs regulatory frameworks

UN Model Regulations

20. Most of the regulatory requirements for transporting DGs are imposed by international conventions and codes to which New Zealand is either a signatory (ICAO Technical Instructions; IMDG Code) or adopts (UN Model Regulations). The most significant is the UN Model Regulations.
21. The UN Model Regulations aim to eliminate or minimise risks, promote safety, and facilitate transport of DGs. They cover land, sea and air transport, forming the basis for uniform national and international regulations, and are updated every two years.
22. The UN Model Regulations incorporate a comprehensive classification system of hazardous properties of DGs. This system largely aligns with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Under the UN Model Regulations DGs are broken down into nine classes (and sub-classes) according to the type of hazard or risk the substances or items present, as follows (a sample of class warning label pictograms are provided below):

1. Explosives		2. Gases		3. Flammable Liquids		
4. Flammable Solids		5. Oxidizers and Organic Peroxides				
6. Toxic and Infectious			7. Radioactive		8. Corrosive	
9. Miscellaneous		(including environmentally hazardous substances).				

23. These same classes are used to classify DGs across the three transport modes in New Zealand.
24. Under the UN Model Regulations, DGs are identified for transport with a UN number, a proper shipping name and where applicable packing group, and a class warning label similar to the sample of labels above. Containers of DGs must be marked or labelled to identify their hazardous properties. This warns people handling or transporting the goods, or finding the goods in an emergency situation.
25. The UN Model Regulations also include procedures and requirements for quantity, marking¹, labelling², packaging, segregation³, special marks (such as the environmentally hazardous mark and orientation arrows) and documentation.

¹ Marking goods with UN number and Proper Shipping Name.

² Applying Class and Subsidiary Risk labels (if required).

³ Separating incompatible materials (for example, those that could react in an undesirable way).

26. International transport-related bodies have established international DGs regulatory frameworks specific to the air and sea modes, based on the UN Model Regulations, which are summarised below.

Air

27. International air transport of DGs is regulated by the ICAO Technical Instructions (at government level) and the IATA Regulations (at industry level). The ICAO Technical Instructions are incorporated by reference in New Zealand Civil Aviation Rules Part 92: Carriage of Dangerous Goods (see paragraphs 52-56). The Civil Aviation Authority (CAA) acknowledges that compliance with the IATA Regulations will result in compliance with the ICAO Technical Instructions.

Sea

28. International sea transport of DGs is regulated by the IMDG Code. The IMDG Code is referenced in Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods (see paragraphs 76-84), for both domestic and international shipping of DGs.

UN Model Regulations and international air and sea regulation

The ICAO Technical Instructions and IMDG Code are closely aligned with the UN Model Regulations, with the text for classification, identification, marking and labelling reproduced from the UN Model Regulations. However, there are still some significant differences between the frameworks, especially in packaging and segregation requirements. These differences are due to the different conditions encountered during transport (for example risk of catastrophic consequences of explosions on aircraft or extent of movement of containers possible at sea). ICAO and IATA have almost identical requirements. However, ICAO recognises nation state variations while IATA recognises nation state and transport operator variations.

Land

29. There is no equivalent international DGs land transport framework to those in the air and sea modes. However, New Zealand's domestic Land Transport Rule: Dangerous Goods 2005 (see paragraph 99-105), incorporates by reference specific parts of the UN Model Regulations, the IMDG Code, ICAO Technical Instructions, IATA Regulations and New Zealand Standard - NZS 5433:2020 Transport of dangerous goods on land (see paragraphs 106-109).
30. The Land Transport Rule: Dangerous Goods 2005 requirements have much in common with the IMDG Code. However, there are also many significant differences, especially regarding the acceptable size and style of packaging, and some differences in segregation, placarding and documentation requirements.

Domestic regulatory framework

31. The domestic regulatory framework for managing DGs comprises two separate but interacting frameworks:
- **Transport regulatory framework** – transport-specific Acts which specify or provide for requirements for each transport mode, setting the broad requirements for participants in the transport system (including some specific DGs requirements) together with associated offences regulations and penalties (see penalties comparison table on page 47) and specific DGs rules (see comparison table on page 28), which set detailed requirements relating to DGs in specific circumstances (see pages 12-39).
 - **Overlapping regulatory frameworks** – most importantly the requirements set by or under HSNO (covering hazardous substances as a risk to public health and the environment) and HSWA, covering the risk of DGs arising from work (see pages 40-46).
32. The specific DGs-related duties and requirements in the transport rules sit within a broader context of the more general duties and requirements in the transport Acts, HSNO and HSWA. This means that contravention of a specific DGs-related duty or requirement in rules:
- might also contravene a more general duty (which might have a higher penalty) at the Act level
 - might lead to consequences under other rules or at the Act level, such as the removal of an authority to operate (for example, a suspension or revocation of an aviation document).
33. Conversely, complying with a specific DGs rules-based duty or requirement does not necessarily demonstrate that an operator has met the requirements of a general duty in an Act. This can lead to some uncertainty for operators and the public who may, reasonably, focus on particular DGs rules rather than general duties. However, it also provides a safeguard: if the specific DGs rules become out of date, penalties do not keep up, or there are gaps, the general Act-based requirements are available to respond to the problem.
34. This balancing of the specific and the general is expressly provided for in section 35 of HSWA:

‘35 Compliance with other enactments

In determining whether a duty imposed on a person by or under this Act is being or has been complied with, a person or a court may have regard to the requirements imposed under any other enactment (whether or not those requirements have a purpose of ensuring health and safety) that apply in the circumstances and that affect, or may affect, the health and safety of any person.’

35. Section 35 of HSWA effectively means that regarding work, an assessment of whether DGs requirements have been met is relevant to determining whether or not HSWA requirements have been met. If the DGs-specific duty is contravened, then there is

some indication that HSWA might also have been contravened; whereas complying with a transport-specific requirement in DGs rules provides some assurance that the person is meeting their HSWA duties, but this is not certain.⁴

36. For example, some maritime rules prescribe the highest industry standards for the matters they cover, so a person complying with those rules is also likely to comply with HSWA. However, other rules have fallen behind technological and other advances in safety management. In these cases, Maritime New Zealand (MNZ) treats the rules as minimum compliance for operators to enter the maritime system or obtain a maritime document.
37. Those operators are then expected to improve on the rule requirements by observing the principles in section 3(2) of HSWA, that workers and other persons should be '... given the highest level of protection against harm to their health, safety, and welfare from hazards and risks arising from work or from specified types of plant as is reasonably practicable'. This means operators must, if reasonably achievable, exceed those minimum rules requirements. In this way transport sector rules and overlapping legislation like HSWA work together, creating a stronger, mutually supporting regulatory framework.
38. The following sections 'Transport-specific DGs regulatory framework' and 'Other related regulatory frameworks', outline the key Acts, regulations and rules comprising the domestic DGs regulatory framework. These include both transport-specific frameworks under transport legislation for each transport mode, and the external frameworks applying across all transport modes for hazardous substances and health and safety at work. Other more peripheral frameworks including Acts in the health, biosecurity and resource management areas are also covered in Appendix A from page 62. The components covered include:

Transport-specific DGs regulatory framework

- **Civil Aviation Act 1990**
 - Civil Aviation Rules Part 92: Carriage of Dangerous Goods
 - Advisory Circulars under Civil Aviation Rules Part 92: Carriage of Dangerous Goods
 - Civil Aviation (Offences) Regulations 2006
- **Maritime Transport Act 1994**
 - Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods
 - Maritime (Offences) Regulations 1998
 - Marine Protection (Offences) Regulations 1998

⁴ See WorkSafe guidance on dealing with earthquake-related health and safety risks: information for PCBUs and building owners at <https://worksafe.govt.nz/laws-and-regulations/operational-policy-framework/operational-policies/dealing-with-earthquake-related/>

- **Land Transport Act 1998**
 - Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1)
 - Land Transport (Driver Licensing) Rule 1999
 - Land Transport (Offences and Penalties) Regulations 1999
 - NZ Standard 5433:2020 Transport of dangerous goods on land
- **Railways Act 2005**

Overlapping regulatory frameworks

- **Hazardous Substances and New Organisms Act 1996**
 - Hazardous Substances (Classification) Notice 2017
 - other labelling, packaging and safety data sheet notices that have reference to the international DGs regulatory instruments
- **Health and Safety at Work Act 2015**
 - Health and Safety at Work (Hazardous Substances) Regulations 2017
 - Health and Safety at Work (Major Hazard Facilities) Regulations 2016

Other peripheral related Acts (see Appendix A)

- Radiation Safety Act 2016
- Medicines Act 1981
- Health Act 1956
- Biosecurity Act 1993, Agricultural Compounds and Veterinary Medicines Act 1997, Animal Control Products Limited Act 1991, Animal Products Act 1999
- Resource Management Act 1991.

Transport-specific DGs regulatory framework

39. The transport-specific DGs regulatory framework follows a similar pattern across the transport modes. Each mode has an overarching Act containing a mix of:
- general provisions and requirements for entry and continued participation in the transport system (such as certification), which may include carrying DGs
 - specific provisions applicable to DGs, including duties for operators and other participants to safely manage risks during DGs transportation, including a limited number of DGs-related offences

- provisions giving the Minister of Transport the ability to make rules and regulations under the Acts.
40. Each Act then has corresponding rules specifically relating to DGs, containing the detail of how DGs should be managed in each mode in particular circumstances. These rules effectively relate to carriage of DGs as cargo, rather than substances that are integral to the vehicle such as fuel. The rules are statutory instruments made by the Minister of Transport under the empowering Acts and failure to comply with the rules may be an offence under the Acts and rules.
41. The rules, across the transport modes, cover similar areas around DGs management such as packaging, quantity, loading/vehicle operation, segregation, marking, labelling, documentation, notifications, safety management and training. However, the provisions also have particularities within modes. There may also be advisory circulars or standards associated with the rule. A table comparing key components of the three DGs-related transport rules for air, sea and land is provided at page 28.
42. Each Act also provides for a set of offences regulations, within which are particular offences (with schedules of fines on conviction and infringement fees in some) associated with the particular rule. Each offence connects to a particular requirement in the rule. However, the Maritime (Offences) Regulations 1998 still refer to a revoked version of Maritime Rules Part 24A: Carriage of Cargoes - Dangerous Goods, which has no correlation to the latest rules, so offences for breaches of Part 24A may not be enforceable.
43. Within these transport DGs regulatory frameworks, the transport regulatory agencies, CAA, MNZ, Waka Kotahi NZ Transport Agency (Waka Kotahi) undertake various regulatory activities to operationalise the requirements and ensure compliance. This includes:
- managing entry and exit to the transport system through licensing and certification (issuing documents) to ensure participants meet the standards of the Acts and rules.
 - encouraging and requiring compliance through:
 - providing information and education on requirements and managing risk
 - monitoring compliance through auditing and inspections
 - revoking transport documents where necessary, thereby removing the participant from the system
 - limiting activity or requiring correction
 - investigating incidents
 - enforcement, including pursuing prosecution for not meeting requirements
- (note that NZ Police functions as a key enforcement agency supporting the transport regulatory agencies and is the lead agency responsible for enforcing the regulations to manage DGs on land – see pages 55-56).

44. All of the above regulatory activities have relevance, at various points, to ensuring DGs are transported safely and effectively through the transport system.

Civil Aviation Act 1990

45. The Civil Aviation Act 1990 sets the safety, security and economic framework for regulating New Zealand's civil aviation system. The Act requires participants in the system to carry out their activities safely and according to relevant prescribed standards and practices.
46. Where required by Civil Aviation Rules established under the Act, participants must also establish and follow a Safety Management System (SMS) that will ensure compliance with relevant safety standards and encourage movement towards the higher standard of 'best practice'. The SMS requires operators to identify hazards/risks, document their safety system and outline how they will manage the identified hazards/risks (including those associated with DGs). It also encourages reporting of incidents.
47. While the Act establishes the basis for the regulatory oversight of carriage of DGs in the aviation system, it sets few requirements for transporting DGs directly. It mainly focuses on providing powers to aviation security officers to detect DGs, and for duties and offence provisions, outlined below and later in this section. Importantly, the Act empowers the Minister of Transport to make Civil Aviation Rules, which are where the majority of civil aviation regulation is contained, including in relation to DGs.
48. The rules for carrying DGs by air are the strictest across all transport modes. This is because DGs can react badly with the conditions they are exposed to during a flight, with potentially catastrophic consequences.
49. Section 29 of the Act 'Rules relating to safety and security' provides the Minister of Transport with the power to make rules specifically relating to DGs as follows:
 - '(d) rules providing for the control of things likely to be hazardous to aviation safety, including but not limited to the following:
 - (i) the safe carriage of firearms and other dangerous or hazardous goods or substances by air.'
50. Section 80A 'Powers and duties of aviation security officer relating to dangerous goods' provides that an aviation security officer:
 - may screen any person boarding an aircraft or any thing to be carried by an aircraft to detect DGs
 - may seize and detain the DGs to determine whether they may be lawfully carried on an aircraft, where the officer has reasonable grounds to believe that they may not be lawfully carried
 - if the officer determines that the DGs may not be lawfully carried, must notify the relevant operator or delivery service and may detain the DGs until they are:
 - returned to the operator or delivery service, or

- destroyed or disposed of if the Director of Civil Aviation agrees
- if the officer determines that the DGs may be lawfully carried, must return the DGs to the owner
- if the officer considers that the DGs pose imminent risk to safety, may destroy or otherwise dispose of the DGs
- must report the detection of DGs in accordance with the rules as the Director may direct.

Civil Aviation Rules Part 92: Carriage of Dangerous Goods

51. Civil Aviation Rules Part 92: Carriage of Dangerous Goods, regulates the transport of dangerous goods by air. The Rule prescribes the minimum safety requirements and operating responsibilities applicable to each person who conducts any function associated with carrying DGs by air (for example shippers and operators).
52. The Rule identifies which DGs cannot be transported by air and establishes safety limitations around those that can. It includes requirements for managing DGs by incorporating reference to the ICAO Technical Instructions. The CAA recognises that compliance with the IATA Regulations will result in compliance with the ICAO Technical Instructions.
53. The Rule provides that DGs must not be carried by air unless they are:
 - classified, documented, certificated, described, packaged, marked, and labelled in accordance with the ICAO Technical Instructions, and are in the condition for shipment prescribed by the Technical Instructions
 - accepted, handled, and carried in accordance with the ICAO Technical Instructions or under the provisions of Subpart A of the Rule.
54. The Rule provides that DGs must not be carried if they are forbidden under the ICAO Technical Instructions. However, there are some limited exceptions to meeting the Technical Instructions, for example for police purposes or for forbidden DGs where the Director of Civil Aviation has approved carriage.
55. The Rule is broken down into five parts covering general and specific requirements and an appendix detailing requirements for DG training programmes.

Advisory Circulars under Civil Aviation Rules Part 92: Carriage of Dangerous Goods

56. There are also three advisory circulars under Civil Aviation Rules Part 92: Carriage of Dangerous Goods. CAA advisory circulars contain information about standards, practices, and procedures that the Director of Civil Aviation considers acceptable to comply with the associated Rule. Advisory circulars may also contain guidance material to facilitate compliance with the Rule requirements.
57. The three advisory circulars under Civil Aviation Rules Part 92: Carriage of Dangerous Goods are:

- *Advisory Circular AC92-1 Dangerous goods training programmes* – provides methods acceptable to the CAA for complying with establishing training programmes required under the Rule.
- *Advisory Circular AC92-2 Carriage of dangerous goods on domestic VFR flights in unpressurised aircraft not exceeding 5700 kg MCTOW* – provides methods acceptable to the CAA for compliance with the exceptions provided in the Rule for carrying DGs on domestic Visual Flight Rules (VFR) operations in unpressurised aircraft not exceeding 5700 kg Maximum Certified Takeoff Weight (MCTOW). In these cases the VFR operator will not have to comply with the extensive requirements otherwise applying to the safe transport of DGs by air.
- *Advisory Circular AC92-3. Dangerous goods packaging approval* – provides methods acceptable to the CAA for showing compliance with the approval of DGs packaging required by the Rule. The circular is intended for DGs packaging manufacturers and regular shippers of DGs, and describes those packages that must be approved by the CAA, and the steps that must be taken to achieve approval (that is, testing of NZ manufactured DGs packages).

Civil Aviation Rules Part 133.65: Helicopter External Load Operations - DGs

58. Civil Aviation Rules Part 133.65 Helicopter External Load Operations – DGs, provides additional regulation for transporting DGs by helicopter as part of ‘external load’ operations. This rule outlines conditions where a pilot-in-command of a helicopter may accept Class 1 and Class 2-9 DGs for carriage as an underslung load, without complying with Civil Aviation Rule Part 92: Carriage of Dangerous Goods.

Offences and penalties in the Civil Aviation Act

59. Section 650 ‘Dangerous goods’ of the Act provides that it is an offence to carry DGs on an aircraft in breach of the rules, liable on conviction to a maximum fine of \$2,500. This offence is directed at passengers.
60. There are also a range of more general offences in the Act, with significant penalties. These do not specifically target DGs-related activity, but may be applicable for significant DGs transgressions. One of the Act’s safety offences is:
- Section 43 ‘Endangerment caused by holder of aviation document’ – prescribes an offence for an aviation document holder to do, cause, or permit any act or omission relating to the document, if this causes unnecessary danger to any other person or property. Penalties are in the following ranges:
 - individuals – maximum imprisonment of 12 months or a maximum fine of \$10,000
 - body corporate – a maximum fine of \$100,000.
61. The Act also provides for the Civil Aviation (Offences) Regulations 2006, which define a wide range of offences specifically related to Civil Aviation Rule Part 92: Carriage of Dangerous Goods. These offences are outlined below.

DGs offences in the Civil Aviation (Offences) Regulations 2006

62. The Civil Aviation (Offences) Regulations 2006 detail 33 offences and associated infringement fees and fines (on conviction) concerning not properly performing requirements relating to Civil Aviation Rule Part 92: Carriage of Dangerous Goods.
63. Offences are associated with a wide range of aspects in the Rule Part 92 such as: not adhering to the ICAO Technical Instructions, forbidden DGs, documentation, packaging, packing, marking, labelling, acceptance checks, stowage, separation, segregation, security, inspection, leakage, information provision, notices and training, among others.
64. Penalties for the offences are in the following ranges:

Infringement fees

- individuals - \$500 - \$2,000
- body corporates - \$3,000 - \$12,000

Fines on conviction

- individuals - \$1,250 - \$5,000
- body corporates - \$7,500 - \$30,000.

Maritime Transport Act 1994

65. The Maritime Transport Act 1994 (MTA) regulates ship safety, maritime liability and marine environmental protection. It has a range of provisions applying to DGs. These include specific powers around opening packages containing DGs, a general offence around breaching DGs requirements and a requirement for a safety management system covering, among other things, the risks posed by carrying DGs. The Act also contains marine environmental protection sections relating to DGs and hazardous substances.
66. The MTA also provides for the making of maritime rules. The maritime rules contain detailed technical standards and procedures and form part of New Zealand's maritime law. Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods, relates specially to the transport of dangerous goods as cargo on ships and is outlined further below in this section (see paragraphs 75-83).
67. The MTA has a specific power relating to DGs that is conferred on a wide range of people, not just officers appointed by the Director of MNZ:
 - Section 200C 'Opening and testing of packages containing dangerous goods' - this provision provides a power to require a package or container to be opened and tested to identify its contents, if a person reasonably believes it contains DGs that are not marked or packed in accordance with the rules. The power is available to the owner or master of a ship, the agent of the owner or charterer, the consolidator of any freight container, and authorised people at several different government agencies. All of the costs are passed on to the owner of the DGs.

Ship Safety Management Systems

68. Section 17 of the MTA requires participants in the maritime system for which a maritime document is required, to comply with the rules and any conditions on that document. This includes the requirement for commercial operators to have a statutory safety management system (SMS).
69. Most domestic commercial operators are required to comply with Maritime Rules Part 19, the Maritime Operator Safety System (MOSS). Under these rules, operators develop a Maritime Transport Operator Plan (MTOP) that is specific to their operation. That MTOP is provided to MNZ as part of a robust MOSS entry-control process, which includes reviewing the MTOP, undertaking a Fit and Proper Person (FPP) assessment of the Responsible People (RP) in the operation, and a site visit from a Maritime Officer to ensure that the plan is appropriate for the operation.
70. Where DGs are to be carried as cargo by MOSS operators, this must be documented in their MTOP and managed in accordance with Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods. Other hazardous substances such as fuel, lubricants, refrigerants, cleaning products and paint are treated as standard risks and managed according to industry standards and other requirements as described by the Maritime Rules Part 19, the MTA, HSWA and HSNO.
71. If operators are complying with MOSS they will also be complying to an extent with HSWA, as these are closely aligned and cover many similar issues. MOSS goes some way towards addressing an operator's health and safety responsibilities. However, the laws and duties in these regimes also differ. Some MOSS requirements are not in HSWA, some overlap with HSWA and some HSWA requirements are not in MOSS.
72. Another mandatory SMS applying to some commercial ships is described in Maritime Rules Part 21: Safe Ship Management Systems. Significant parts of these rules were revoked in 2014 when Maritime Rules Part 19 came into force and most of the domestic fleet transitioned from Part 21 to Part 19 over four years. However, Part 21 still requires certain New Zealand commercial ships to establish a safe ship management system.

SMS, foreign ships and large ships

73. Section 1 of Part 21: Safe Ship Management Systems, still applies to those foreign-going ships which are subject to the requirements of the International Convention for the Safety of Life at Sea, 1974, (SOLAS), and to other large ships of 45 meters or more in length (other than fishing ships) which proceed beyond restricted limits. That section incorporates the requirements of SOLAS Chapter IX - Management for the Safe Operation of Ships. Chapter IX requires those ship owners to implement a shore-based and shipboard safe management system in compliance with the International Safety Management Code (ISM). MNZ conducts ISM audits of these ships under section 54 of the MTA.
74. Foreign ships, which are SOLAS ships, are required by Section 1 of Maritime Rules Part 21 to meet the Port State Control (PSC) provisions of SOLAS regarding Chapter X. MNZ's PSC Officers conduct regular inspections of these foreign-flagged vessels in accordance with the Tokyo MOU (Memorandum of Understanding on Port State Control in the Asia-Pacific Region) using a risk-based model.

Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods

75. Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods, relates to the transport of DGs as cargo by sea in New Zealand. Part 24A sets out the responsibilities of seafarers, ship owners, shippers, consolidators, packers and anyone involved in the carriage of DGs by sea.
76. These rules incorporate the IMDG Code by reference. The objective of Maritime Rules Part 24A are to:
 - implement New Zealand's obligations under Chapter VII of SOLAS
 - prescribe rules governing the carriage of DGs by sea by certain commercial ships.
77. Part 24A does not apply to pleasure craft, which are covered by the general provisions of the MTA, or fishing ships, of which most are in MOSS under Maritime Rules Part 19, or covered by other applicable rules. Fishing ships are unlikely to carry DGs as cargo, and other hazardous substances on board fishing vessels are managed as risks under the operation's SMS. Further, under section 4(1) of the MTA, warships are not required to comply with the MTA or any regulations or rules made under the MTA.
78. Maritime Rules Part 24A provides a general requirement that no person may perform a 'DGs cargo function', which includes various activities involving handling and transporting DGs, except according to Part 24A. The rules differentiate requirements between international and domestic voyages, but both must adhere to the applicable parts of the rules, the IMDG Code and a series of other applicable international codes.
79. Further, unique to the maritime transport mode, the Maritime Rules Part 24A provide for requirements depending on whether a ship is operating under a SMS or not.
80. Part 24A also differentiates requirements for domestic voyages for DGs cargo carried by passengers which is not freight, and that which is freight carried within restricted limits other than across Cook Strait.
81. The authority for the Rule is found in section 36(1)(b), (j), (m), (u), (v), and (za)(v) of the MTA.
82. Significantly, Part 24A refers to Land Transport Rule: Dangerous Goods 2005 for certain requirements, such as competency of shore-based personnel, and allows compliance with requirements in the Land Transport Rule as an alternative to certain IMDG Code requirements. For example, for smaller ferries around New Zealand, if a vehicle complies with the Land Transport Rule, then they are deemed to also comply with Part 24A, even though the standards are usually higher at sea than on land.
83. NZ Standard 5433:2020 Transport of Dangerous Goods by Land (see paragraphs 106-109) also includes updated sections on the intermodal transport of DGs between land and sea. There is particular attention on making it as easy as possible for consignors and shippers to comply with Part 24A (referencing IMDG) and the Land Transport Rule.

Offences and penalties in the MTA

84. Section 67B(1)(c) of the MTA, 'Other offences', includes an offence of knowingly breaching any requirement specified in the Act or in regulations or rules made under the Act for carrying DGs. Penalties are as follows:
- individuals – a maximum 12 month prison term or maximum \$10,000 fine
 - body corporates – a maximum fine of \$100,000
 - for either of the above, an additional penalty of an amount not exceeding three times the value of any commercial gain resulting from committing the offence.
85. There are also offences in the MTA under Part 19 'Protection of marine environment from harmful substances', which may be applicable to DGs activity, where definitions of harmful substances⁵ in the marine protection rules (to which this offence applies) and DGs overlap. These offences attract the highest penalties in the MTA. An example is:
- Section 237 'Discharge or escape of harmful substances from ship into sea or seabed', provides that if a harmful substance is discharged or escapes from a ship into the sea, the master or owner, or other person (if the discharge/escape is from intentional damage by that person) an offence is committed. Penalties, the highest available under the MTA, are:
 - maximum imprisonment of two years, or a maximum fine of \$200,000; and
 - if the offence continues, a maximum fine of \$10,000 for every day, or part day, the offence continues; and
 - costs incurred in respect of or associated with removing, containing, rendering harmless, or dispersing any harmful substance discharged as a result of the offence
 - an additional penalty of an amount not exceeding three times the value of any commercial gain resulting from committing the offence.
86. Like the Civil Aviation Act, there are also more general offences in the MTA which may be applied to DGs-related activity. A safety offence in the MTA is:
- Section 64 'Unnecessary danger caused by holder of marine document', prescribes an offence for a marine document holder to do, cause, or permit any act or omission relating to the document, if this causes unnecessary danger to any other person or property. Penalties are identical to the offence under section 67B(1)(c) of the MTA described above.
87. The MTA also provides for the making of regulations. The Maritime (Offences) Regulations 1998 contain offences specifically relating to Maritime Rule Part 24A: Carriage of Cargoes – Dangerous Goods, as outlined below. There are also potentially

⁵ 'Harmful substances' are defined in the marine protection rules and are distinct from 'hazardous substances' as regulated in HSNO and HSWA and DGs. However, harmful substances may overlap with hazardous substances and DGs. They currently include, for example, any substance in packaged form identified as a marine pollutant in the IMDG Code.

relevant offences in the the Marine Protection (Offences) Regulations 1998 also outlined below.

DGs offences in the Maritime (Offences) Regulations 1998

88. The Maritime (Offences) Regulations 1998 contain 34 offences relating to duties or requirements in Maritime Rule Part 24A: Carriage of Cargoes – Dangerous Goods. The regulations contain no infringement offences.
89. The offences cover a range of matters including documentation, stowage, packaging, labelling, loading, notifications (for example, to Director or Harbourmaster), shipper responsibilities, types of ships (chemical tankers, gas carriers) and compliance with various international codes (for example, Gas Carrier Code, Code for Existing Ships Carrying Liquefied Gases in Bulk), handling of spilled goods, incidents plans. The offences apply to ship owners and masters, harbourmasters, shippers of DGs, packaging manufacturers, consolidators, packers and port operators.
90. However, in 2015 the original Rule Part 24A was revoked and replaced by a new and substantially different Rule Part 24A, but the Maritime (Offences) Regulations 1998 were not revised at the same time. Consequently, the DGs-related offences in the Maritime (Offences) Regulations 1998 do not point to current duties or requirements in Part 24A. Therefore, in practice, if MNZ were to currently take a DGs-related prosecution, this would likely be under offences in the MTA, HSWA (see pages 20 and 45-46) or the Marine Protection (Offences) Regulations 1998, outlined below. Offences may also be able to be prosecuted under HSNO (see pages 41-42).
91. If the offences were still able to be applied to Part 24A, penalties would be in the following ranges:

Fines on conviction

- individuals - \$3,000 to \$5,000
- body corporates - \$20,000 to \$30,000.

Offences in the Marine Protection (Offences) Regulations 1998

92. The Marine Protection (Offences) Regulations 1998 contain a variety of offences connected to the Marine Protection Rules. These Rules are designed to protect our marine environment from the negative impacts of 'harmful substances', which are defined in the Marine Protection Rules in a variety of ways and may overlap with DGs. Therefore, various offences in the Marine Protection (Offences) Regulations 1998 may apply to DGs-related activity.
93. The marine protection offences include, among other things, a wide range of activity relating to preventing, monitoring and mitigating oil and noxious liquid spills and ensuring associated documentation. There are also two offences related to harmful substances carried in packaged form as cargo (Part 150), which are similar to certain DGs offences.
94. There are 146 offences in the Marine Protection (Offences) Regulations. However, of these, 22 offences (including the two in Part 150), point to the wrong duty or prohibition in the Marine Protection Rules. Therefore, similar to the situation with offences associated with the Maritime Rules Part 24A above, these may not be able to be

enforced. Further, 44 rules in the Marine Protection (Offences) Regulations contain duties or prohibitions with no corresponding offences.

95. Penalties for the offences in the Marine Protection (Offences) Regulations, where they are applicable, are in the following ranges:

Infringement fees

- individuals - \$250 to \$2000
- persons other than individuals – \$1,200 to \$12,000

Fines on conviction

- individuals - \$625 - \$5,000
- persons other than individuals – \$6,000 - \$30,000.

Land Transport Act 1998

96. The Land Transport Act 1998 (LTA) sets out the legislative framework for land transport regulation and safety. The LTA:

- establishes the primary responsibilities for participants in the land transport system
- sets out the requirements of the driver licensing regime
- provides offences, penalties, and enforcement powers
- contains administrative and miscellaneous provisions (for example, regulation-empowering provisions, requirements for land transport rules).

97. The LTA contains various requirements specifically relating to managing transport of DGs including DGs enforcement officer appointment, powers related to vehicle and premises inspection, and rule-making. These sections are:

- 92 'Compulsory attendance at DGs course', provides that if a person is convicted of an offence against the LTA involving DGs, the court may order the person to attend a DGs course approved by Waka Kotahi.
- 129 'Vehicles may be inspected and directed to remain stopped for contravening DGs rules', provides a power for an enforcement officer or a DGs enforcement officer to stop and inspect a vehicle if they consider a breach of DGs rules has occurred, and to give directions.
- 130 'Power to inspect railway lines', gives DGs enforcement officers powers to inspect a rail vehicle or railway line to determine whether or not the requirements of DGs-related rules are being complied with. If not the officer may direct the vehicle not to move or be moved to a safe place until the situation is rectified.
- 131 'Power to inspect premises used for loading and unloading of DGs', gives DGs enforcement officers powers to enter premises where DGs are being loaded onto

or unloaded from vehicles or packed for that purpose, to ensure rules are being complied with, and to give directions.

- 132 'Inspection powers concerning DGs' gives DGs enforcement officers inspection powers including:
 - taking substance samples
 - opening containers or packages to inspect the contents
 - taking measurements and sketches
 - inspecting any documents or other records relating to the obligations imposed by or under the rules
 - requiring production of any documents or information relevant to the inspection
 - taking copies of the documents or information or extracts from those documents or information.
- 148 'Presumptions relating to axle weights and DGs', relates to overloading offences and holds that where marks, labels or placards indicate the presence of DGs on vehicles and documentation indicates DGs, then DGs of the nature and quantity indicated are presumed to be present.
- 156 'Rules concerning DGs', – gives a power to make rules concerning the packing, loading, consignment, and carriage of DGs in the land transport system.
- 208 'Appointment of DGs enforcement officers', gives powers to:
 - the Commissioner of Police to appoint people who are, or are not, constables to be DGs enforcement officers
 - Waka Kotahi to appoint a Waka Kotahi employee to be a DGs enforcement officer
 - the Commissioner and Waka Kotahi to specify the functions and powers of the officer and impose conditions on powers.

Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1)

98. Land Transport Rule: Dangerous Goods 2005 (Rule 45001/1) sets requirements for the safe transport of DGs on land in New Zealand and was amended in 2016. The Rule covers the packaging, identification and documentation of dangerous goods; the segregation of incompatible goods; transport procedures; and the training and responsibilities of those involved in the transport of DGs. The Rule's requirements are applied according to the nature, quantity and use of the DGs.
99. Specific responsibilities are set out for consignors (such as manufacturers, importers or distributors) loaders, drivers and operators of road or rail vehicles, and employers of

those persons. The Rule applies to anyone transporting dangerous goods on land (and includes items for personal or recreational use).

100. The Rule incorporates, by reference, specific parts of the UN Model Regulations, the IMDG Code, ICAO Technical Instructions, IATA Regulations, and NZ Standard 5433: 2020 Transport of dangerous goods on land (see paragraphs 106-109). The Rule specifies that declarations for sea and air transport are also acceptable for land transport.
101. Land Transport Rule: Dangerous Goods 2005 includes many references to meeting the requirements of the 'relevant regulatory authority' and which may be linked to other regulatory frameworks. For example, there are many significant requirements for transporting explosives which come from the Health and Safety at Work (Hazardous Substances) Regulations 2017. Also, most of the requirements for tank wagons for transporting DGs comes from those regulations, with WorkSafe being the primary relevant regulatory authority.
102. The Rule requirements (based on the UN Model Regulations) have much in common with the maritime IMDG Code. However, there are many significant differences, especially in relation to the size and style of packaging that is acceptable, and some differences in segregation, placarding and documentation requirements.
103. The Rule differentiates requirements for transporting DGs depending on:
 - the nature of the DGs
 - the quantity being transported
 - whether DGs are being transported:
 - by transport service operators or for hire or direct reward
 - for use as tools-of-trade, agricultural use or for commercial purposes;
 - or
 - for domestic or recreational purposes.
104. The Rule is divided into three parts:
 - Part 1 – Rule requirements (containing ten sections)
 - Part 2 – Definitions (containing a table of properties and classification of DGs for land transport)
 - Part 3 – Schedules (breaks the classes of DGs down into quantity limits, linked to the reason the DGs are being carried, and specifies segregation requirements as follows:
 - Schedule 1: Quantity limits for DGs transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward
 - Schedule 2: DGs in Limited Quantities and Consumer Commodities

- Schedule 2A: DGs that must not be transported as DGs in Limited Quantities or as Consumer Commodities
- Schedule 3: Segregation requirements for DGs.

Land Transport (Driver Licensing) Rule 1999

105. The Land Transport (Driver Licensing) Rule 1999 requires that a person who drives a vehicle transporting DGs must hold a DGs endorsement if this is also required by the Land Transport Rule: Dangerous Goods 2005. It also sets out the process by which a person may obtain a DG endorsement on their driver's licence, through application, following successful completion of an approved course that teaches specialist knowledge and skills.

NZ Standard 5433:2020 Transport of dangerous goods on land

106. NZ Standard 5433:2020 Transport of dangerous goods on land, provides detailed technical information to meet the requirements of Land Transport Rule: Dangerous Goods 2005. The standard specifies the technical requirements for transporting all DGs by road and rail, except for the classification, packaging, and transport of radioactive materials.
107. Requirements related to Class 7 radioactive materials are covered in the Radiation Safety Act and Regulations, which adopt the International Atomic Energy Agency (IAEA) Transport Regulations for the safe transport of radioactive material. There is reference to 'excepted packages of radioactive material' in Land Transport Rule: Dangerous Goods 2005.
108. The Standard provides information on:
- classification of DGs for transport
 - maximum inner package sizes for DGs in limited and excepted quantities
 - packing instructions
 - specifications for hazard warning labels and special marks
 - performance standards for segregation devices
 - the list of UN numbers and proper shipping names for goods classified as dangerous for transport, and the list of special provisions.
109. The updated NZ Standard 5433:2020 was comprehensively reviewed by a Standards NZ committee, the membership of which included industry representatives and the transport regulatory agencies. This aimed, among other things, to address issues around intermodal transport relationships and ensure as seamless a DGs management system between modes as possible. The new standard also incorporates much of the information in the UN Model Regulations.

Offences and penalties in the LTA

110. Section 53 of the LTA 'Obstruction of DGs enforcement officer', makes it an offence to obstruct a DGs enforcement officer performing their functions or powers under the LTA. The maximum penalty applicable to a person is a \$10,000 fine.
111. Unlike the Civil Aviation Act and MTA, the LTA does not contain general offences which are likely to be applicable to DGs-related activity. Applicable offences are contained in the Land Transport (Offences and Penalties) Regulations 1999, which specifically relate to Land Transport Rule: Dangerous Goods 2005, as outlined below.

DGs offences in the Land Transport (Offences and Penalties) Regulations 1999

112. The Land Transport (Offences and Penalties) Regulations 1999 contain 48 offences relating to duties or requirements in Land Transport Rule: Dangerous Goods 2005. The offences cover a wide range of issues including safety, leakage, packaging, labelling, marking, placarding, segregation, loading, training, documentation, emergency response information, loading, traffic restrictions, and driver licence endorsements, among others.
113. Penalties for the offences relating to Land Transport Rule: Dangerous Goods 2005 are in the following ranges:

Infringement fees

- individuals: \$55 to \$2,000
- body corporates: \$750 to \$10,000

Fines on conviction

- individuals - \$1,000 to \$10,000
- body corporates - \$1,000 to \$50,000.

Railways Act 2005

114. The Railways Act 2005 (RA) provides the legislative framework for identifying and managing critical safety issues in rail. It is designed to ensure that that key rail participants are licensed, safety data is collected, operators demonstrate they are managing safety risks, and that Waka Kotahi has powers to audit, inspect and sanction operators.
115. Requirements for managing DGs by rail follow the requirements in the LTA and Land Transport Rule: Dangerous Goods 2005, as outlined in the provisions of the RA.
116. Sections in the RA relating specifically to DGs are as follows:
- 14 'Duty of rail participants to comply with DGs provisions of LTA', provides that a rail participant must comply with the provisions of sections 129 to 132 of the LTA that apply to that rail participant.

- 51 'Rules concerning DGs', provides that the rules made under the LTA regarding packing, loading, consignment, and carriage of DGs apply to DGs carried by a rail vehicle.

Offences

117. Similar to the LTA, the RA does not contain general offences which are likely to be applicable to DGs-related activity. However, the RA specifies that rail participants must comply with the provisions in the LTA noted above and the rules regarding packing, loading, consignment, and carriage of DGs. Consequently, the following offences and penalties from the LTA and the Land Transport (Offences and Penalties) Regulations 1999 apply to rail participants:

- LTA section 53 'Obstruction of DGs enforcement officer', makes it an offence to obstruct a DGs enforcement officer performing their functions or powers under the LTA. Maximum penalty is a \$10,000 fine.
- Land Transport (Offences and Penalties) Regulations 1999 – offences relating to packing, loading, consignment, and carriage of DGs:

Infringement fees

- Individuals: \$55 to \$2,000
- Body corporates: \$750 to \$10,000

Fines on conviction

- Individuals - \$1,000 to \$10,000
- Body corporates - \$1,000 to \$50,000.

(Transport sector rule requirements comparison table appears on the next page).

Transport sector rule requirements comparison table

118. The following table provides detail comparing many of the key rule requirements in the three transport sector DGs-related rules, outlined earlier in this section on the DGs transport-specific regulatory framework.

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
Application (coverage)	<p>Prescribes rules for carrying DGs by air. Does not apply to articles or substances that are:</p> <ul style="list-style-type: none"> specifically excluded under Part 1 in the ICAO Technical Instructions required to be aboard an aircraft in accordance with the airworthiness or operational requirements of the Civil Aviation Rules approved by the Director to meet special operational requirements. 	<p>Prescribes rules for carrying DGs by sea by certain commercial ships. Applies to NZ ships and foreign ships in NZ waters. Does not apply to pleasure craft, fishing ships or warships. Applies to carriage of DGs as cargo/freight, including by passengers.</p> <p>Applies to: ship operators, owners and masters, DGs shippers and people involved in packing, loading, stowing, unloading, manufacturers and suppliers of packaging, anyone carrying or intending to carry DGs on ship.</p> <p>Requirements are differentiated between carriage on international and domestic voyages.</p>	<p>Prescribes rules for carrying DGs on land including by rail (includes items for personal or recreational use). Applies to anyone involved in transporting DGs on land.</p> <p>Applies to:</p> <ul style="list-style-type: none"> substances or articles belonging to the classes and divisions described in Table A of the Rule - Properties and classification of DGs for land transport of the Rule substances or articles declared DGs for transport on land by the relevant regulatory authority empty receptacles that have contained substances or articles referred to in 1.2(1)(a) or (b), but have not been cleaned. <p>Does not apply to some goods – for example, those:</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
			<ul style="list-style-type: none"> required to power or control the vehicle (or ancillary equipment) and are contained in the fuel system, electrical system or control system and not part of the load transported under the direction of a DGs enforcement officer, a police officer, a HSNO enforcement officer or emergency services personnel in an emergency situation transported by the NZ Defence Force declared not to be DGs by the relevant regulatory authority. <p>Requirements are differentiated according to the nature, quantity and use of the DGs (for example, domestic/recreational or commercial purposes).</p>
General (overarching) requirements	<p>DGs must not be:</p> <ul style="list-style-type: none"> offered or accepted for carriage unless classified, documented, certificated, described, packaged, marked, and labelled in accordance with the ICAO Technical Instructions, and in the condition for shipment prescribed 	<p>No person may perform a dangerous goods cargo function except according to the Rules.</p> <p>International voyages:</p> <ul style="list-style-type: none"> DG cargo functions must be carried out according to the Rules or the applicable international codes – for example, IMDG Code 	<p>General safety requirements include that activity involving transport of DGs must be undertaken safely and comply with the requirements of all sections of the Rule.</p> <p>Other general safety provisions include that:</p> <ul style="list-style-type: none"> DGs must not be transported if packaging is leaking

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
	<p>by the ICAO Technical Instructions</p> <ul style="list-style-type: none"> carried unless accepted, handled, and carried in accordance with the ICAO Technical Instructions or under the provisions of Subpart A, providing for exceptions to meeting the ICAO Technical Instructions offered or accepted for carriage if forbidden under the ICAO Technical Instructions, unless approved by the Director <p>DGs associated with an accident are in the custody of the Director and can be inspected and tested.</p>	<p>Domestic voyages:</p> <ul style="list-style-type: none"> requirements and standards in the international codes apply to the Cook Strait ferries, Chatham Islands and some other voyages - however, most ferries in NZ comply with the Rules if they comply with the Land Transport Rule: DGs 2005 packaged DGs must comply with the Rules certain bulk DGs must be carried according to the Rules and certain international codes. 	<ul style="list-style-type: none"> if DGs are not being carried, placards or markings must not be misleading in that they might be being carried <p>See also 'Acceptance' provisions below which appear as general safety requirements.</p> <p>General safety requirements are also listed under the following sections of the Rule (some of which are reflected under the corresponding headings of this table):</p> <ul style="list-style-type: none"> packaging labelling and marking documentation placarding transport procedures training responsibilities.
Acceptance	<p>Operators may refuse to carry, or impose special requirements on carrying, a particular article or substance.</p> <p>An operator shall not accept packaged DGs for carriage unless:</p> <ul style="list-style-type: none"> accompanied by the DGs transport document (except where the ICAO Technical Instructions don't require one) 	<p>A ship's operator and master must not accept any consignment of DGs for carriage on a ship unless the following compliant documentation is provided:</p> <ul style="list-style-type: none"> a DGs transport document any applicable container packing certificate any applicable vehicle packing certificate 	<p>A person or organisation involved in any activity regarding transporting goods and who suspects a package contains DGs may:</p> <ul style="list-style-type: none"> request that the package be opened to determine: <ul style="list-style-type: none"> whether or not it contains dangerous goods; or

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
	<ul style="list-style-type: none"> • the package has been: <ul style="list-style-type: none"> ○ inspected in accordance with the Rules ○ marked and labelled in accordance with the Rules. 	<ul style="list-style-type: none"> • any additional information and documentation required as applicable. 	<ul style="list-style-type: none"> ○ that any DGs it contains comply with the Rule • refuse to accept the DGs.
Packaging	<p>Must:</p> <ul style="list-style-type: none"> • comply with and be tested in accordance with the ICAO Technical Instructions • for NZ manufactured packaging, if required: <ul style="list-style-type: none"> ○ be tested by a Telarc accredited organisation ○ be approved by the Director (except for Class 7 radioactive DGs) • for non-NZ manufactured packaging, if required: <ul style="list-style-type: none"> ○ be manufactured and tested in an ICAO contracting State • for Director's approval involve submitting a packaging 	<p>Must comply with the IMDG Code or the Land Transport Rule: DGs 2005, depending on the vessel's location.</p> <p>Must not be damaged or ineffective to risk leakage or spillage.</p> <p>Alternatives to complying with the IMDG Code are available to passengers carrying DGs if permitted by the operator and master and in packaging complying with the Rules and Schedule 2 (DGs permitted for passengers) or Schedule 3 (DGs permitted for driver of drive-on vehicle).</p> <p>Alternatives exist for carrying DGs as freight domestically in restricted limits, other than across Cook Strait, if packaging meets the Land Transport Rule: DGs 2005.</p>	<p>Must:</p> <ul style="list-style-type: none"> • be appropriate to the DGs' nature and quantity • not contaminate or react with the DGs • be sufficiently strong to safely contain the DGs under normal transport conditions • comply with international documents referenced in the Rule or NZS 5433: 2020 Transport of DGs on land, or the requirements of the relevant regulatory authority. <p>There are specific requirements for packaging for DGs according to nature, quantity and use.</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
	<p>performance test report (approvals last 5 years)</p> <ul style="list-style-type: none"> • except where the ICAO Technical Instructions otherwise provide, ensure the packaging: <ul style="list-style-type: none"> ○ is used as specified in the applicable test ○ conforms with the design type tested. 		
Packing	DGs must be packed in accordance with the ICAO Technical Instructions.	Packaged DGs must be packed to comply with the IMDG Code or the Land Transport Rule: DGs 2005, depending on the vessels' location.	<p>If DGs are in a closed, prepacked freight container or vehicle, a Container Packing Certificate or Vehicle Packing Certificate must be carried indicating, among other things, that the freight container or vehicle was clean, dry and fit to receive the goods when packed.</p> <p>Requirements for segregation and security are set according to the DGs' nature, quantity and use.</p>
Marking	<p>A package or overpack must be marked:</p> <ul style="list-style-type: none"> • to comply with the ICAO Technical Instructions • with: 	<p>Packaged DGs must comply with the IMDG Code.</p> <p>Alternatives exist to complying with the IMDG for Code for marking, for carrying DGs as freight domestically in restricted limits, other than across Cook Strait, if packaging meets the Land Transport Rule:</p>	<p>DGs must be marked to:</p> <ul style="list-style-type: none"> • identify the hazards • be legible and visible.

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
	<ul style="list-style-type: none"> ○ the DGs proper shipping name ○ UN number ○ name and address of person offering the DGs for carriage and the consignee ○ other makings as specified in the ICAO Technical Instructions. 	<p>DGs 2005 and the owner, operator and master permits.</p>	<p>Provides requirements for marking according to the nature, use and quantity of the DGs.</p>
Labelling	<p>A package or overpack must be labelled to:</p> <ul style="list-style-type: none"> • comply with the ICAO Technical Instructions • ensure that the hazard label indicates the true nature of the hazard in accordance with the ICAO Technical Instructions. 	<p>Packaged DGs must be labelled to comply with the IMDG Code.</p> <p>Alternatives exist for complying with the IMDG Code for labelling, for carrying DGs as freight domestically in restricted limits, other than across Cook Strait, if packaging meets the Land Transport Rule; DGs 2005 and the owner, operator and master permits.</p>	<p>DGs must be labelled to:</p> <ul style="list-style-type: none"> • identify the hazards • be legible and visible. <p>Requirements exist according to the nature, use and quantity of the DGs – the design, colour, size and durability of the labels must comply with the specifications of the international documents referenced in the Rule, or NZ Standard 5433:2020 Transport of dangerous goods on land.</p>
Placarding	<p>Only referenced together with labelling.</p>	<p>Must comply with the IMDG Code.</p> <p>On domestic voyages, alternative requirements to complying with the IMDG</p>	<p>Requires that a vehicle transporting DGs that are hazardous to people, property or the environment, must display placards identifying the hazard the DGs present, as</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
		Code are available for placarding, to comply with the Land Transport Rule: DGs 2005, if the operator and master permit and the carrier complies.	appropriate to the nature, quantity and use of the DGs. Also specifies general requirements for the nature of the placard and its presentation.
Documentation	<p>DGs offered for carriage must be accompanied by a DGs transport document accurately describing the DGs including:</p> <ul style="list-style-type: none"> • proper shipping name • class, division • UN number • where assigned, appropriate packing group • signed declaration • compliance with any additional ICAO Technical Instructions requirements. 	<p>Documentation requirements apply to operators, masters, shippers, packers and carriers.</p> <p>Must comply with the IMDG Code.</p> <ul style="list-style-type: none"> • Operators and masters must: <ul style="list-style-type: none"> ○ not accept DGs unless the correct documentation is provided ○ complete their own requisite documentation and make this available to specified persons as necessary ○ ensure emergency response information is available. 	<p>DGs being transported must be accompanied by documentation identifying the DGs and the hazard they present to any person, property or to the environment, as appropriate to the nature, quantity, and use of the dangerous goods, and to the type of transport operation.</p> <p>Documentation types include:</p> <ul style="list-style-type: none"> • DGs declaration (includes, for example, UN number, class, quantity of DGs) • Schedule of Quantities • Load Plan for a line haul vehicle (being a vehicle or vehicle combination that has more than three axles, a combined gross vehicle mass of more than 20 tonnes, and the transport of DGs is outside a radius of 100km from any point at which the DGs have been loaded) • Container Packing Certificate or Vehicle Packing Certificate. <p>Documentation is not required for small quantities.</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
Segregation, separation, security	<p>Operators shall:</p> <ul style="list-style-type: none"> not stow packages containing DGs which might react dangerously together, next to each other or allowing interaction between them in the event of leakage stow packages of poisons and infectious substances in accordance with the ICAO Technical Instructions stow radioactive materials separate from persons, live animals, and undeveloped film compliant with the ICAO Technical Instructions protect the DGs from damage secure DGs to prevent any movement in flight which would change the orientation of packages. 	<p>Packaged DGs must be segregated and secure to comply with the IMDG Code.</p> <p>Alternatives exist for complying with the IMDG Code for segregation, for carrying DGs as freight domestically in restricted limits, other than across Cook Strait, if packaging meets the Land Transport Rule:</p> <p>DGs 2005 and the owner, operator and master permits.</p>	<p>DGs must, by means appropriate to their nature, quantity and use, be segregated from:</p> <ul style="list-style-type: none"> other DGs with which they might react dangerously food items they might contaminate. <p>DGs must be secured so that segregation distances are maintained and spillage of DGs does not occur due to normal movement during transport.</p> <p>Specific requirements for segregation are set according to the DGs' nature, quantity and use.</p>
Notification	<p>Operators shall, before aircraft departure, notify the pilot of the DGs to be carried in accordance with the ICAO Technical Instructions.</p>	<p>Shippers must notify operators of the intention to ship DGs, identify goods and provide necessary documentation.</p> <p>Master must notify port of ships' intention to arrive at port.</p>	<p>No specific mention of requirements for notification in the Rule. However, there may be some instances where some notification could be required for certain road controlling authorities (for example, for tunnels). This may also include 50max / high productivity</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
			motor vehicles ⁶ , where the route/load requires a permit issued by Waka Kotahi. There may also be notifications required for some classes of DG's (for example, Class 1 explosives, with a relevant regulatory authority or Police for certain movements)
Hazard management and emergency response	Operators shall, for aircraft carrying DGs requiring a transport document, before aircraft departure, provide the pilot with emergency response information. Operators shall provide employees and handling agents with instructions on actions to be taken in emergencies.	Owners and operators must have procedures for managing DGs-related hazards and emergencies in place. Equipment must be fit for purpose, fire protection equipment provided, DGs kept away from ignition sources and personal protective equipment (PPE) provided appropriate to the DGs risks.	Emergency equipment and information about emergency procedures, as appropriate to the nature, quantity and use of the DGs, and as required by any other enactment, must be accessible at all times when DGs are being transported. Persons transporting DGs for hire or reward, use as tools-of-trade, agricultural use, for a commercial purpose in any quantity, or for domestic or recreational purposes exceeding Schedule 1 limits, must carry emergency response information. Where passengers are carrying DGs in small quantities as 'consumer commodities' on a passenger service vehicle, emergency response information is not required.
Safety Management System	A Safety Management System exists in the Civil Aviation Act but it is not directly referenced in the Rules.	Ships operating under a Safety Management System (SMS) must: <ul style="list-style-type: none"> address risks associated with carrying DGs to the satisfaction of the Director 	N/A

⁶ Vehicles travelling on New Zealand roads must be within a certain size and weight so they can fit on the road safely, don't impede other traffic and don't damage roads and bridges. The maximum size and weight dimensions for vehicles are set out in the Land Transport Rule: Vehicle Dimensions and Mass 2016. If a vehicle and/or its load exceeds the usual size and weight dimensions, often referred to as vehicles that are 50MAX and/or High Productivity Motor Vehicles (HPMV), a permit issued by Waka Kotahi will likely be required.

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
		<ul style="list-style-type: none"> develop a SMS to ensure compliance with the DGs Rules and other maritime/marine protection rules <p>Ships not operating under a SMS require a DGs permit issued by the Director – applications must include a DGs plan to ensure compliance with the Rules.</p>	
Reporting	<p>References Civil Aviation Rules Part 12: Accidents, Incidents, and Statistics. A serious DGs incident must be reported to the Civil Aviation Authority.</p> <p>Part 12 defines a DGs incident as an incident associated with carrying DGs by air after acceptance by the operator, that:</p> <ul style="list-style-type: none"> results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation, or other evidence that the integrity of the packaging has not been maintained; or involves DGs incorrectly declared, packaged, labelled, marked, or documented. 	<p>Ship masters and owners must report DGs leakage and spillage. Where occurring in a NZ port the harbourmaster and Director must be notified. At sea the appropriate authority of the nearest State must be notified. Where ships are abandoned or reports are incomplete the operator must complete the report and forward it to the Director.</p>	<p>No reference to reporting in Rule.</p>

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
Training	<p>Includes requirements for:</p> <ul style="list-style-type: none"> • shippers and their agents • operators • handling agents • agencies, organisations and persons, other than operators involved in processing or carrying passengers or cargo • agencies engaged in the security screening of passengers and their baggage. <p>Holders and non-holders of air operating certificates and their agents must ensure that personnel with duties involving DGs must have satisfactorily completed a DGs training programme conducted by a compliant provider.</p> <p>Required training must be repeated every two years.</p> <p>Appendix A of Rules details training programme requirements linked to categories of personnel.</p>	<p>Any person involved in documentation, handling, segregation, packing, stowing, loading, or unloading of DGs freight must be competent under the Rules. A person or organisation engaging someone to undertake these duties must ensure they have received adequate training to carry out the function safely and competently.</p> <p>Requirements are included in line with the competencies covered in the ships operator’s safety management system or owner’s dangerous goods plan.</p>	<p>A person or organisation undertaking an activity involving transporting DGs for hire or reward, use as tools-of-trade, agricultural use or for a commercial purpose must have knowledge appropriate to the nature, quantity and use of the DGs transported including:</p> <ul style="list-style-type: none"> • the hazards associated with the DGs • safe practice relevant to the activities they carry out • emergency procedures. <p>Employers must ensure that employees handling or transporting DGs are trained to carry out their duties safely and satisfactorily, including:</p> <ul style="list-style-type: none"> • general awareness or familiarisation • function-specific • safety • retraining, as appropriate. <p>Drivers transporting DGs must hold a current DGs endorsement on their licence unless:</p> <ul style="list-style-type: none"> • transported for domestic or recreational purposes and not for hire or direct reward

	Air Civil Aviation Rules Part 92: Carriage of Dangerous Goods	Sea Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods	Land Land Transport Rule: Dangerous Goods 2005
			<ul style="list-style-type: none"> • transported for work purposes, but not hire or direct reward and in small quantities, or the driver holds an approved handler test certificate. <p>There are also certain DGs situational applications (eg involving DGs in small packages or excepted quantities) that mean a DGs endorsement is not required.</p>

Overlapping regulatory systems

Hazardous Substances and New Organisms Act 1996

119. The Hazardous Substances and New Organisms Act 1996 (HSNO) aims to protect the environment and people's health and safety from the adverse effects of hazardous substances. It focuses on public health, environmental and non-workplace risks from hazardous substances, and imposes specific requirements on importers and manufacturers of hazardous substances. Controls exist across a framework including HSNO, associated regulations, Environmental Protection Authority (EPA) notices, individual hazardous substance approvals and group standards for groups of substances.
120. HSNO manages hazardous substances through their whole 'lifecycle', excluding in work situations involving the manufacture, use, handling, or storage of hazardous substances, which is covered by health and safety at work legislation. HSNO's coverage includes the introduction of new hazardous substances and new organisms (including genetically modified organisms) into New Zealand, and their transport, use and disposal. HSNO requires a hazardous substance to be approved by the EPA before it is imported or manufactured. Once approval is granted, the substance is generally available for anyone to use, import or manufacture.
121. Hazardous substances are classified in accordance with HSNO Classification Notice 2017 (see paragraphs 131-133). These classifications are based on the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Classification of hazardous substances under the GHS and DGs for transport under the UN Model Regulations is largely aligned, but there are some differences in which classes or subclasses of substances are regulated under each framework.
122. For most hazardous substance categories there is direct correlation between the GHS and DGs transport classification systems. However, the HSNO classification framework excludes DGs classifications Class 6.2 (Infectious Substances), Class 7 (Radiation) and Class 9 (Miscellaneous) in part. The 'environmentally hazardous substances' part of the UN Model Regulations (Class 9) is covered under HSNO (GHS).
123. These differences occur because transport constitutes only part of a substance's 'lifecycle', during which a substance is held in some form of containment (such as packaging), although transport also imposes specific risks involving DGs. However, HSNO covers all stages of the 'lifecycle', including where the substance is taken out of its packaging and used.
124. Consequently, there are several HSNO classifications that are not considered dangerous and are not regulated during transport. For example, substances classified as HSNO 3.1D (low hazard flammable liquids) are not flammable liquids for transport and are not regulated as DGs. Conversely, DGs include other classes of substances, not regulated by HSNO as noted above.
125. While substances are being transported, HSNO essentially accepts compliance with the transport-based DGs regulations and rules to indicate compliance with its own requirements. Compliance with the IATA regulations, Civil Aviation Rules Part 92: Carriage of Dangerous Goods, the IMDG Code, Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods, the Land Transport Rule: Dangerous Goods 2005 and NZ Standard 5433:2020 Transport of Dangerous Goods on Land, generally ensures

compliance with HSNO for packaging, marking, labelling and documentation of DGs while being transported.

HSNO enforcement and offences

126. Section 97 of HSNO provides that:

- Waka Kotahi may enforce the provisions of HSNO in or on any motor vehicle, on any road, in or on any rail vehicle, or on any railway line
- the Commissioner of Police shall (after consultation with Waka Kotahi) ensure that the provisions of HSNO are enforced in the above situations
- the Director of CAA shall ensure that the provisions of HSNO are enforced in or on any aircraft, including those relating to discharging hazardous substances from an aircraft
- the Director of MNZ shall ensure that the provisions of HSNO are enforced in or on any ship.

127. The offence provisions of HSNO most relevant to the transport sector are those in section 109(1)(e) to (g) and (j) to (m). These include failing to comply with:

- any controls specified in any regulations or an EPA notice relating to hazardous substances
- any prohibition specified in regulations
- any requirement to obtain a certificate specified in any regulations or an EPA notice
- a condition on a permission relating to hazardous substances
- a compliance order
- responsibilities of the carrier and person in charge of any craft (includes providing proper documentation and transporting hazardous substances out of New Zealand for which documentation was not provided, at the carrier's cost)
- knowingly impersonating an enforcement officer or wilfully obstructing them in their duties
- knowingly, falsely informing a person that an emergency exists
- knowingly labelling any package or container in such a manner that the label could, in an emergency, wrongly indicate the presence of hazardous substances.

128. Other HSNO provisions may apply in particular circumstances. The first four offences listed above attract the highest possible penalties, as outlined below. The last three offences are *mens rea* offences where intention of wrongdoing must be proved. All other offences are strict liability (where it is not necessary to prove that the defendant intended to commit the offence, although certain defences apply).

129. Penalties for the above offences (set out on HSNO section 114) are in the following ranges:

Imprisonment on conviction

- offences in section 109(1)(e)(ea)(eb):
 - maximum of three months

Fine on conviction

- offences in section 109(1)(e)(ea)(eb):
 - up to \$500,000 and further fines of up to \$50,000 per day for a continuing offence
- offences in section 109(1)(f)(g):
 - up to \$50,000 and further fines of up to \$5,000 per day for a continuing offence
- offences in section 109(j)(k)(l)(m):
 - up to \$5,000.

130. Under HSNO the Court may also require a person convicted of an offence to mitigate or remedy any adverse effects on people or the environment or to pay the costs of doing so. Finally, while HSNO also has provision for enforcement officers to impose infringement notices (instant fines), infringement regulations have not yet been developed and therefore these are not currently an enforcement option.

Hazardous Substances (Classification) Notice 2017

131. The EPA has issued the Hazardous Substances (Classification) Notice 2017 under section 74 of HSNO. EPA notices are secondary legislation administered by the EPA. The notice sets the classification system for hazardous substances.

132. The classification system currently⁷ comprises:

- numbered classes (for example, class 4) indicating the intrinsic hazardous property of a substance
- numbered subclasses (for example, subclass 4.2) indicating the type of hazard of a substance
- lettered categories (for example, category A) indicating the degree of hazard of a substance

133. The classes of hazardous substances correspond to the classes identified for DGs for transport. However, as noted previously, not all subclasses of substances classified under this notice under HSNO are classified as DGs for transport purposes.

⁷ The EPA plans to update the Classification Notice to adopt GHS revision 7 through incorporation by reference by mid-2021. After this time the current HSNO alpha-numeric numbering system will be discontinued.

Health and Safety at Work Act 2015

134. The Health and Safety at Work Act 2015 (HSWA) is New Zealand's principal workplace safety law. It sets out principles, duties and rights regarding workplace health and safety. New Zealand workplaces and workers that may deal with hazardous substances (DGs for transport) in any way throughout the transport sector are subject to HSWA and its associated regulations, as well as relevant DGs-related transport rules, depending on circumstances (see context on the inter-relationship between HSWA and DGs transport rules in paragraphs 32-38).
135. HSWA aims to provide a balanced framework to secure the health and safety of workers and workplaces, including by:
- protecting workers and other persons against harm to their health, safety and welfare by eliminating or minimising risks arising from work
 - promoting the provision of advice, information, education, and training regarding work health and safety
 - securing compliance with HSWA through effective and appropriate compliance and enforcement measures
 - ensuring appropriate scrutiny and review of actions taken by persons performing functions or exercising powers under HSWA
 - providing a framework for continuous improvement and progressively higher standards of work health and safety.
136. HSWA manages the manufacture, use, handling and storage of hazardous substances at work. It does this under the broad performance-based provisions of the Act and the more prescriptive requirements of the Health and Safety at Work (Hazardous Substances) Regulations 2017 and associated Safe Work Instruments (see paragraphs 143-148).
137. HSWA provisions, and notably the particular duties outlined below and corresponding offences, are applicable to DGs-related circumstances or incidents during work in any of the transport modes. Regarding enforcement, WorkSafe generally prosecutes under HSWA duties. However, in some circumstances, on a case-by-case basis, offences in other relevant legislation such as HSNO or the DGs transport-related rules may be more prescriptive and allow more precise prosecution. In practice, this may involve a discussion between the relevant enforcement agencies as to the appropriate enforcement action, taking into account the Prosecution Guidelines 2013.

Duties under HSWA

138. HSWA sets out a series of duties which are relevant to managing hazardous substances/DGs for transport. Section 36 sets out a 'primary duty of care' for a 'Person Conducting a Business or Undertaking' (PCBU), which includes employers. The section holds that a PCBU must ensure, as far as practicable, the health and safety of:
- workers while working for the PCBU

- workers whose activities are influenced or directed by the PCBU while working
 - other persons who could be put at risk from work carried out as part of the PCBU's business.
139. Section 36(3)(d) also specifically holds that a PCBU must ensure, as far as practicable, the:
- ‘... safe use, handling, and storage of plant, **substances**, and structures.’
140. HSWA includes coverage of hazardous substances carried for vehicles' operation, such as fuel.
141. Section 36(3) also refers to other duties of PCBUs including provision of adequate facilities, training and monitoring of conditions.
142. Sections 44-46 of HSWA provide for various duties of officers (persons in governance or senior management positions), workers and other persons at the workplace. These include for officers to exercise due diligence that PCBUs comply with duties, for workers to take reasonable care of their own health and safety and that of others, and for other persons at the workplace to do the same.

Health and Safety at Work (Hazardous Substances) Regulations 2017

143. The Health and Safety at Work (Hazardous Substances) Regulations 2017 (Hazardous Substances Regulations) set requirements for the safe management of hazardous substances at work. Regulation 1.6 of the Hazardous Substances Regulations sets out the application of those regulations to transporting hazardous substances by land, sea, or air as part of a workplace activity.
144. Regulation 1.6 requires that the DGs transport rules under aviation, maritime and land transport legislation are to be followed when transporting DGs. There are also several extra requirements to be met from the Hazardous Substances Regulations.
145. For example, regarding land transport, Regulation 1.6 references Part 16 of the Regulations. Part 16 prescribes requirements for the design, construction, maintenance, certification and operation of tank wagons and transportable containers for the carriage of hazardous substances. Many tank wagons contain DGs, for example those used to transport fuel including petrol, diesel and LPG.
146. Additional requirements also include the need to obtain a permit from WorkSafe in advance of transshipping⁸ explosives to another country through New Zealand on a New Zealand-flagged ship or New Zealand-crewed aircraft. If the explosives are to be unloaded temporarily, then the PCBU controlling the land-based activities (unloading, loading, handling, storage and transportation by land) must obtain a separate WorkSafe permit for that purpose.
147. The above is effectively the only regulation in the Hazardous Substances Regulations applying to ships. An EPA transshipment approval is required where explosives are being transhipped through New Zealand on a foreign-flagged ship or foreign-crewed aircraft.

⁸ This is when explosives are imported into New Zealand solely for the purpose of export within 20 working days to another country.

148. The Hazardous Substances Regulations also set requirements for the design of hazardous substances locations and stationary container systems, covering a large number of sites. Transport sector operators interact with these facilities, for example for filling and unloading tank wagons and transportable containers.

Health and Safety at Work (Major Hazard Facilities) Regulations 2016

149. Major hazard facilities (MHFs) are facilities that store and process very large quantities of specified hazardous substances. These facilities interact with the transport sector by being a point to which, and from which, specified hazardous substances are transported as DGs. However, the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 (the MHF Regulations) do not apply to transporting specified hazardous substances (substances which the MHF Regulations regulate) by road, rail, internal waterways, sea, or air.
150. The MHF Regulations mandate specific duties relating to process safety for existing and potential MHFs and identify the facilities to which the MHF Regulations apply. They also specify types of hazardous substances that are applicable, thresholds, and the duties of major hazard facility operators.
151. While not specifically articulated as such, there is a link between MHFs and the LTA, with section 131 of the LTA providing a power for DGs enforcement officers to inspect any premises used for loading and unloading DGs.

HSWA and associated regulations offences

152. Offences in HSWA link to the duties under the Act described above. HSWA provides three levels of offences relating to duties, each decreasing in penalty levels, which may also apply to DGs transportation. These dovetail with transport-related DGs rules and the regulator will decide which are more appropriate to use.
153. Section 47 provides for an offence of ‘... reckless conduct in respect of a duty.’ This involves recklessly engaging in conduct exposing anyone to whom a duty is owed to a risk of death, serious injury or illness. Penalty ranges are:

Imprisonment on conviction

- individuals who are, or are not, a PCBU or an officer of a PCBU – up to five years

Fines on conviction

- individuals who are not a PCBU or an officer of a PCBU – up to \$300,000
- individuals who are a PCBU or an officer of a PCBU – up to \$600,000
- any other person⁹ – up to \$3 million.

154. Section 48 of HSWA provides an offence of ‘... failing to comply with duty that exposes individual to risk of death or serious injury or serious illness.’ Penalty ranges are:

⁹ Includes the Crown, a corporation sole, and a body or persons, whether corporate or unincorporate.

Fines on conviction

- individuals who are not a PCBU or an officer of a PCBU – up to \$150,000
- individuals who are a PCBU or an officer of a PCBU – up to \$300,000
- any other person – up to \$1.5 million.

155. Section 49 of HSWA then provides for an offence of ‘... failing to comply with a duty.’
Penalty ranges are:

Fines on conviction

- individuals who are not a PCBU or an officer of a PCBU – up to \$50,000
- individuals who are a PCBU or an officer of a PCBU – up to \$100,000
- any other person – up to \$500,000.

156. There are also some relevant offences linked to breaching requirements in certain regulations made under HSWA. For example, the Hazardous Substances Regulations contain the following requirements, with offences and penalties for contravening the regulations:

- 16.4 Compatibility – a PCBU must ensure that a tank and fittings coming into contact with hazardous substances carried in the tank are designed and constructed using substances and materials that are compatible with the substance
- 16.7 Ability to withstand stress of load - a PCBU must ensure that a tank is designed and constructed so that, when undergoing stresses expected to be generated by the tank, its contents, and the fittings permanently attached to the tank, it complies with a range of specified conditions

Fines on conviction (for contravening either of the above requirements)

- individuals - up to \$10,000
- any other person - \$50,000.

(DGs-related penalties comparison table appears on the next page)

DGs-related penalties comparison table

157. The following table provides a comparison of the ranges of penalties for offences which, as outlined earlier in this document, may apply to DGs-related activity and are:

- specific DGs-related offences under the transport-related Acts and DGs rules
- general offences in transport-related Acts
- harmful substance¹⁰-related marine protection offences in the MTA and Marine Protection (Offences) Regulations
- offences under HSNO and HSWA relating to hazardous substances.

	Air	Sea	Land	HSNO	HSWA
DGs-specific transport offences					
Infringement fees					
Individuals	\$500 - \$2000		\$55 - \$2,000		
Body corporates	\$3000 - \$12,000		\$750 - \$10,000		
Fines					
Individuals	\$1,250 - \$5000	\$3,000 to \$10,000	\$1,250 - \$10,000		
Body corporates	\$7,500 - \$30,000	\$20,000 - \$100,000	\$1,000 - \$50,000		
Imprisonment		Up to 12 months			

¹⁰ 'Harmful substances' are defined in the marine protection rules and are distinct to hazardous substances as regulated in HSNO and HSWA, and from DGs, but may overlap with both these types of substances.

	Air	Sea	Land	HSNO	HSWA
General transport offences					
Fines					
Individuals	Up to \$10,000	Up to \$10,000			
Body corporates	Up to \$100,000	Up to \$100,000			
Additional	Additional to above, a maximum penalty of three times the value of any commercial gain from committing the offence	Additional to above, a maximum penalty of three times the value of any commercial gain from committing the offence			
Imprisonment	Up to 12 months	Up to 12 months			
Harmful substance-related marine protection offences					
Infringement fees					
Individuals		\$625 - \$2000			
Persons not individuals		\$6000 - \$30,000			
Fines		Up to \$200,000 and up to \$10,000 per day/part day for continuing offences			
Additional		Additional to above fines: <ul style="list-style-type: none"> costs from removing, containing, rendering harmless, or dispersing any harmful substance discharged as a result of the offence an amount not exceeding three times the value of any commercial gain resulting from committing the offence 			
Imprisonment		Up to 2 years			

	Air	Sea	Land	HSNO	HSWA
HSWA / HSNO offences					
Fines				Differ depending on offence categories (apply to 'a person' ¹¹): <ul style="list-style-type: none"> • up to \$500,000 and up to \$50,000 per day for continuing • up to \$50,000 and up to \$50,000 per day for continuing • up to \$5,000 	Differ depending on offence categories: <ul style="list-style-type: none"> • individuals not a person conducting a business or undertaking (PCBU) officer of a PCBU - up to \$300,000 • individuals who are a PCBU or officer of a PCBU - up to \$600,000 • any other person¹² – up to \$3 million
Imprisonment				Up to 3 months	Individuals who are or are not a PCBU or officer of a PCBU – up to 5 years

¹¹ Includes the Crown, a corporation sole, and a body of persons, whether corporate or unincorporate.

¹² Ibid.

158. Points of note regarding the penalties presented in the previous table include:

- infringement fees in the aviation and land transport sectors are comparable
- there are no infringement fees established concerning DGs-specific offences in the maritime sector – further, as previously noted, the DGs-specific offences in the Maritime (Offences) Regulations 1998 are not aligned to current duties or requirements in Rule Part 24A Maritime Rule Part 24A: Carriage of Cargoes – Dangerous Goods, therefore their associated penalties may not be able to be enforced
- maximum possible fines for specific DGs offences for individuals in the aviation sector are half those in the maritime and land sectors
- the minimum and maximum fines possible for body corporates for specific DGs offences, is significantly higher in the maritime sector than the aviation or land sectors
- of the transport sectors, only the maritime sector has an imprisonment penalty for specific DGs offences
- maximum penalties for general offences in the aviation and maritime sectors that might be applicable to DGs activity are identical
- harmful substance-related marine protection offences in the MTA represent the highest possible penalties that might apply to DGs-related activity in transport legislation
- significantly higher fines are available under HSNO and HSWA that might apply to DGs-related activity than in transport legislation, but some of these offences are focussed more widely than on merely hazardous substances
- HSWA contains the highest possible penalties, including two substantially higher outlying penalties (a fine of up to \$3 million and a prison term of up to five years).

Key system participants

Transport sector regulators

Minister of Transport

159. The Minister of Transport determines government policy and exercises statutory functions regarding transport nationally. Unless delegated to an Associate Minister, this includes responsibility for government oversight across all the transport modes including air, sea and land (including rail). The Minister's main statutory functions regarding DGs is making DGs-related rules and associated offences and penalties under regulations.

Ministry of Transport

160. The Ministry of Transport is the government's principal transport adviser. It provides impartial advice to the government to help it meet its objectives for transport across the transport modes. This includes advice on legislative, regulatory and policy settings; funding levels and priorities; and Crown agency governance, performance and accountability (including for the transport sector regulatory agencies concerned with DGs – CAA, MNZ and Waka Kotahi).
161. The Ministry also administers the primary transport Acts including the Civil Aviation Act, MTA and LTA, under which DGs-related rules, regulations and offences are established.
162. Under the State Sector Act 1988, government departments are responsible for the stewardship of the legislation administered by the department. As part of its regulatory stewardship role, the Ministry has the responsibility to ensure that the regulatory system across the transport sector is achieving (and continues to achieve) its purpose, and aligns with best practice regulatory principles. This includes the safe and effective transport of DGs across the transport sector.

Waka Kotahi NZ Transport Agency

163. Waka Kotahi is a Crown entity established under the Land Transport Management Act 2003 to contribute to an effective, efficient, and safe land transport system. Waka Kotahi has governance responsibilities across the land transport sector (road and rail) for regulation, investment and infrastructure delivery. Regarding DGs land transport safety regulation, it has regulatory responsibilities through the LTA and associated Rules, including the Land Transport Rule: Dangerous Goods 2005 (45001/1) and the Land Transport (Driver Licensing) Rule 1999 (SR1999/100).
164. The current focus of Waka Kotahi's DGs regulatory governance capability is primarily around prevention first and willing compliance relating to the DGs land transport rule and various international requirements incorporated by reference. Waka Kotahi provides technical interpretation and advice around safe road and rail DGs transport requirements in a New Zealand transport context, as it applies to the:
 - nature, quantity and use of the DGs
 - packaging
 - labelling and marking
 - documentation
 - segregation
 - placarding of vehicles
 - transport procedures and responsibilities
 - training.
165. Under the Land Transport (NZTA) Legislation Amendment Bill, many of Waka Kotahi's functions regarding regulating DGs would be undertaken by a newly proposed Director of Land Transport.
166. Waka Kotahi also provides technical support to other government stakeholders and specifically works in partnership with the NZ Police, as the current DGs land-based enforcement agency, for DGs Rule interpretation and application. The main regulated party is the commercial transport sector. However, Waka Kotahi is also mandated to provide national/general public advisory support for DGs matters unrelated to

commercial transport. This is managed through regulatory oversight across specific DGs transport categories, namely DGs that are transported:

- for hire or direct reward (road and rail)
- for domestic or recreational purposes
- as tools-of-trade, for a commercial purpose or agricultural use
- with some level of compliance relief (for example, DGs in limited quantities, small packages, excepted quantities) due to the nature, quantity and risk level associated with these DGs.

167. Under section 208 of the LTA Waka Kotahi can appoint an employee to be a DGs enforcement officer. These officers have a range of powers regarding enforcing laws relating to DGs being transported, including inspecting vehicles and premises in relation to DGs' regulations. However, currently there are no Waka Kotahi-appointed DGs enforcement officers. Instead, NZ Police's Commercial Vehicle Safety Team undertakes these enforcement activities in the land transport sector (see paragraphs 185-194).

168. While Waka Kotahi does not currently undertake DGs enforcement, it is investigating potential opportunities to expand the DGs enforcement remit by warrant. This would involve appointing appropriate staff as DGs enforcement officers from its Safer Commercial Transport Compliance Unit.

Civil Aviation Authority (CAA)

169. The Civil Aviation Authority (CAA) oversees aviation safety and the legislation and rules underpinning it. CAA works to ensure everyone involved in New Zealand aviation meets the required legal standards. It is a Crown entity established under the Civil Aviation Act 1990.

170. CAA is the lead regulatory agency under the Civil Aviation Act and Civil Aviation Rule Part 92: Carriage of Dangerous Goods. It is responsible for monitoring and enforcing compliance with these rules, including prosecuting breaches. CAA is also a designated agency under HSWA for work preparing aircraft for imminent flight and aircraft in operation. It therefore also enforces HSWA and the associated health and safety at work regulations in aviation settings.

171. CAA's key functions as listed in the Civil Aviation Act are to:

- promote civil aviation safety and security in New Zealand
- establish and continue an aviation security service
- investigate accidents and incidents (subject to limitations set out in the Transport Accident Investigation Commission Act 1990).

Operational approach supporting compliance

172. In terms of ensuring compliance with the Acts, regulations and rules for managing DGs, CAA's regulatory approach must consider participants operating:

- a) inside the aviation system (for example, certified operators, licensed pilots)
 - b) outside the aviation system (for example, passengers, shippers).
173. For participants operating inside the system, to ensure compliance with operating requirements (including compliance with requirements for carrying DGs) CAA takes an in-depth, 'life cycle' approach as follows:
- **Certification:** On entering the system, the onus is on participants to show how they fully comply with requirements (including specific requirements for carrying DGs) and can maintain this. Organisations must also show that all necessary management systems required by rules are in place.
 - **Continued Operation:** Participants must continue to meet requirements while operating in the system. For organisations, this includes the continued effective operation of their management systems as required under rules. Sections 15 and 15A of the Civil Aviation Act allow CAA (Director of Civil Aviation) to conduct regulatory activities including appropriate monitoring (surveillance – including audits, inspections and spot checks), provide advice and technical guidance material, conduct safety promotion and other activities to support this outcome.
 - **Exit:** Participants may exit the system voluntarily, requesting suspension or revocation of an aviation document. The Director of Civil Aviation may also suspend or revoke an aviation document where this is necessary for safety or for non-compliance with other regulatory requirements.
174. CAA is also able to receive information on risks associated with carrying DGs through the Civil Aviation Rules Part 12: Accidents, Incidents and Statistics. These rules prescribe requirements for the notification, investigation and reporting of accidents and incidents. Under the rules CAA receive reports of 'occurrences' (accidents and incidents which might involve DGs) from pilots, flight crew, engineers, airlines and other operators, and ground crew, among others. Notification takes place via a CA005 or CA005D form or another means acceptable to CAA, which is subsequently received by CAA's Intelligence Safety and Risk Analysis Unit.
175. For participants outside the aviation system who may be involved with DGs there is far less direct control. Consequently, compliance depends primarily on training (for example, for shippers) and information (for example, for passengers). Where appropriate, product certification (for example, ensuring appropriate standards are met for packaging materials for carrying DGs by shippers) is also required. Limited 'passive' screening of cargo/passengers (as a subset of normal security screening), which may identify DGs, also occurs.

'Just Culture' and enforcement

176. CAA's regulatory approach to compliance and enforcement applies 'Just Culture' principles as part of its proactive safety activities and in its responses to safety-related deficiencies and occurrences. CAA proactively assesses safety culture as part of its oversight of participants' SMSs. While SMSs provide an effective framework and processes for safety, CAA considers good safety performance will only be achieved if underpinned by a positive safety culture. Indicators CAA considers when assessing safety culture include the nature and extent to which:

- responsibility for safety is accepted and demonstrated at management level
 - decisions and actions align with what is documented for procedures and reflect 'safety mindedness'
 - non-compliant and at-risk behaviours are not condoned by fellow employees and are addressed by management using a just and fair process
 - attitudes of care and concern permeate the organisation
 - employees report events, hazards, errors and concerns without fear of reprisal
 - information is used for on-going reflection and improvement of safety practice.
177. If an aviation participant reports their involvement in a DGs-related incident or rules omission/breach in a complete, accurate and timely way then CAA can apply 'Just Culture' principles in its response. Where accidents and incidents are fully reported, appropriate enforcement tools can be used to provide immediate protection of the public, aircraft and participants in the aviation system and, where applicable, to address any likely future non-compliance.
178. Regarding investigations of events or possible breaches of rules (DGs-related or otherwise), CAA first seek to examine the nature of the event or breach, level of risk, causes, systems in place, and the behaviour of people involved. The participants' behaviour in terms of self-reporting (that is, whether the event was reported in a timely and fulsome manner, whether the matter is part of a pattern, and the extent to which those involved accept accountability and are willing to learn or change) is also considered.
179. Further to the above factors, CAA will consider what is best in the public interest. Civil Aviation Rules Part 12.63 essentially prevents CAA from taking enforcement action against those who fully report details of accidents and incidents. However, it may do so in circumstances where reporting is patently incomplete or reveals reckless or repetitive at-risk behaviours. Under such circumstances, the protections of 'Just Culture' will not apply. Breaches or safety 'occurrences' regarding carrying DGs in these situations will therefore undergo enforcement action, as appropriate, through Section 650 of the Civil Aviation Act or through the Civil Aviation Offences Regulations 2006.

Maritime New Zealand (MNZ)

180. Maritime New Zealand (MNZ) is a Crown Entity established under the MTA. It is the national regulatory, compliance and response agency for the safety, security and environmental protection of coastal and inland waterways. MNZ administers the MTA and Maritime Rules Part 24A: Carriage of Cargoes – Dangerous Goods.
181. MNZ carries out various operational activities that support compliance with DGs requirements. In particular this involves entry control for participants in the maritime system (such as certification of operators and key individuals), MOSS audits and safety inspections of international SOLAS vessels (see previous narrative at paragraphs 68-74).

Compliance and enforcement tools

182. MNZ has a range of tools that could be used where non-compliance with DGs requirements is evident. These include tools to help compliance or enforce requirements where necessary. In regulating work on board ships and ships as workplaces, MNZ will consider and apply the most appropriate compliance response, including taking steps under either, or both of, the MTA and HSWA.
183. MNZ uses guidance, information, education, and engagement when risks are low and operators are willing to comply; otherwise it uses enforcement tools including:
- issuing notices requiring corrective action on deficiencies or improvements to be made
 - imposing conditions on maritime documents
 - investigating and issuing warnings
 - detaining vessels
 - prohibiting operations, activities or the use of plant
 - suspending and revoking a seafarer's licence
 - taking prosecutions.
184. MNZ is responsible for prosecuting any breaches relating to DGs requirements under the MTA or Maritime Rule Part 24A: Carriage of Cargoes – Dangerous Goods. It is also a designated agency under HSWA for ships as workplaces and work aboard ships. MNZ therefore enforces HSWA and the associated health and safety at work regulations in maritime settings. Further, MNZ also currently has one HSNO enforcement officer.

Enforcement on land

New Zealand Police

185. New Zealand Police (Police) is the lead agency responsible for enforcing the regulations to manage DGs on land, including road and rail. This means Police enforce the requirements of Land Transport Rule: Dangerous Goods 2005 on behalf of Waka Kotahi. The LTA enables Police to have both enforcement officers and DGs enforcement officers to enforce DGs regulations.
186. All Police constables are enforcement officers under the LTA (section 2 of the LTA refers). The Commissioner of Police may also appoint other persons who are not constables as enforcement officers, either by warrant under section 208(1)(a) of the LTA, or by warrant under section 24(1) of the Policing Act 2008.
187. Enforcement officers have powers to stop and inspect the load of heavy motor vehicles and certain transport service vehicles. They may, at any time, direct any of the following vehicles to stop and remain stopped to inspect their the load, which may include DGs (section 125(1)(a) of the LTA refers):

- heavy motor vehicle
 - goods service vehicle
 - passenger service vehicle
 - vehicle recovery service vehicle
 - heavy rental service vehicle.
188. The Commissioner of Police may also appoint persons as DGs enforcement officers by warrant under section 208(1)(b) and (2) of the LTA. Following the completion of relevant training, as at May 2020 there were around 20 Police officers holding DGs enforcement warrants, with a further 72 officers awaiting the issue of warrants.
189. Under the LTA DGs enforcement officers have several powers available to facilitate the inspection of road and rail vehicles, and certain loading depots, to ensure compliance with requirements relating to land transportation activities.
190. DGs enforcement officers have powers under the LTA regarding sections:
- 130 ‘Power to inspect railway lines’ (includes inspecting a rail vehicle or railway line to determine if DGs rules are being complied with)
 - 131 ‘Power to inspect premises used for loading and unloading DGs’
 - 132 ‘Inspection powers concerning DGs’ (powers extend to persons assisting a DGs enforcement officer under section 130(5) or section 131(4)) – includes powers such as being able to take samples, open containers and inspect documents.
191. In practice, members of Police’s Commercial Vehicle Safety Team who have been appointed by warrant as DGs enforcement officers, can access premises in which:
- the operator of a transport service vehicle loads or unloads the vehicle
 - goods are loaded onto or unloaded from a transport service vehicle
 - goods are packed with a view to being loaded onto a transport service vehicle by a person other than the vehicle operator.
192. Under section 129(2A) of the LTA, an enforcement officer or a DGs enforcement officer may also give such reasonable directions as are necessary regarding the loading or unloading of a vehicle or the packing or unpacking of any thing, to ensure compliance with the rules or otherwise to ensure safety in relation to transporting DGs.
193. Police and Waka Kotahi also have enforcement and regulatory responsibility around the care and protection of road infrastructure such as tunnels, bridges and safe places to park.
194. Police is also a designated agency for the purposes of performing certain functions and exercising certain powers under HSWA. A Memorandum of Understanding between WorkSafe (as the regulator) and Police (as a designated agency) provides a formal agreement as to, among other matters, the roles, duties and responsibilities of each party. Police’s Commercial Vehicle Safety Team (CVST) employees may be appointed as inspectors by notice in writing under Section 163 of HSWA. As at May 2020, CVST had 28 employees appointed as inspectors.

Hazardous substances-related regulators

Environmental Protection Authority

195. The Environmental Protection Authority (EPA) is New Zealand's national environmental regulator and is a Crown Agent established under the Environmental Protection Authority Act 2011. It is responsible for implementing the HSNO Act, associated regulations and EPA Notices to reduce harm from hazardous substances to the environment and people, in places other than workplaces.
196. HSNO legislation covers all hazardous substances (except radioactive materials and infectious substances) throughout their 'lifecycle', of which their transport as DGs is a part. The Ministry for the Environment is responsible for administering the Act and regulations (essentially its design and content), but the EPA is responsible for issuing and administering EPA Notices.
197. The EPA focuses on 'upstream' activities concerning hazardous substances under HSNO. It receives applications for approval to import or manufacture new hazardous substances, assesses the risks and decides whether the substances should be approved for use in New Zealand. It sets the rules for classification, labelling, safety data sheets, packaging and disposal, as well as for protecting the environment and public health through EPA Notices.
198. While substances are being transported, HSNO generally accepts compliance with the transport-based DGs regulations and rules to indicate compliance with its own requirements. The EPA therefore effectively leaves regulation of DGs during transport to the transport regulatory agencies. However, as noted previously, the land transport DGs rule makes several references back to the 'relevant regulatory authority' (see paragraph 101), which in some circumstances is the EPA.
199. As regards its enforcement role, the EPA enforces:
 - HSNO Act provisions regarding classification and content controls, and equivalent conditions in group standards relating to hazardous substances
 - the requirement for a hazardous substance to have an approval before being imported or manufactured
 - prohibitions relating to persistent organic pollutants and hazardous substances prohibited by regulations
 - requirements imposed under any EPA notice
 - in any workplaces, any regulations, EPA controls and equivalent conditions in group standards that relate to hazardous substances, to the extent that responsibility for enforcement does not go to another agency under section 97(1)(a)-(g) of the HSNO Act.
200. The EPA also has various monitoring and review roles, including the ability to inquire into incidents and emergencies involving hazardous substances.

WorkSafe

201. WorkSafe is a Crown entity which is New Zealand's primary health and safety at work regulator under HSWA. It is the principal enforcement and guidance agency regarding the manufacture, storage, use and disposal of hazardous substances at work.
202. WorkSafe focuses on reducing risks from the manufacture, use, handling and storage of hazardous substances in work situations. To do this, WorkSafe implements and enforces the requirements provided in the Hazardous Substances Regulations.
203. WorkSafe implements the regulations by providing guidance, managing the compliance certification regime, and developing safe work instruments to set more detailed and technical rules for hazardous substances.
204. Similar to HSNO requirements, The Hazardous Substances Regulations require that the DGs transport rules under aviation, maritime and land transport legislation are to be followed when transporting DGs. WorkSafe therefore also effectively leaves enforcement of the rules for transporting DGs to the respective transport sector regulatory agencies, but takes an oversight role. As the CAA and MNZ are designated agencies under HSWA, these agencies also enforce HSWA in workplaces in their sectors.

Other agencies

Office of Radiation Safety (Ministry of Health)

205. The Office of Radiation Safety (ORS) is a unit of the Ministry of Health (MoH). Its primary role is as the regulatory body administering the Radiation Safety Act 2016, Radiation Safety Regulations 2016 and the Codes of Safe Practice. This involves a wide range of regulatory activities including source and use licensing, issuing import and export consents and developing guidelines.
206. Enforcement officers may also be appointed under the Radiation Safety Act. The Director for Radiation Safety and seven further enforcement officers with powers of inspection are currently appointed in that capacity.
207. Under the Radiation Safety Act, entities managing transport of radioactive substances are responsible for ensuring safe transport. In some cases, special arrangement forms and security plans need to be produced (for example, for transporting material involving larger activities requiring Type B packaging, intended to withstand the most severe incidents) and these must be approved by the Director. ORS has no involvement around transporting material requiring Type A packaging designed to withstand normal conditions.
208. ORS is the 'relevant regulatory authority' for radioactive material in Land Transport Rule: Dangerous Goods 2005. Clause 2.9(2) of that rule notes that excepted packages of radioactive material¹³ that are transported in accordance with a range of listed requirements, including requirements of the 'relevant regulatory authority', do not have to comply with any other requirements of the rule.

¹³ Excepted packages of radioactive material means: (a) empty packagings that have contained radioactive material or packages that contain radioactive material in limited quantities, instruments or manufactured articles as specified: (i) in the Regulations for Safe Transport of Radioactive Material of the International Atomic Energy Agency; or (ii) in the United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations; or (iii) by the relevant regulatory authority.

209. Other functions of ORS include:

- carrying out responsibilities as New Zealand's competent authority under various international treaties, conventions and regulations
- overseeing the provision of authoritative advice to government and the public regarding all matters associated with radiation
- overseeing special projects relating to radiation, for example, the environmental radiation monitoring program.

210. All transport of radioactive material in New Zealand must be undertaken in accordance with the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Material (IAEA Transport Regulations) and Land Transport Rule: Dangerous Goods 2005. The IAEA Transport Regulations are reproduced in the UN Model Regulations on transporting DGs, the IMDG Code, the ICAO Technical Instructions and IATA Regulations.

Medsafe (Ministry of Health)

211. Medsafe is New Zealand's medicines and medical devices safety authority. It is a business unit of the MoH and is the authority responsible for regulating therapeutic products in New Zealand. Medsafe is responsible for administering the Medicines Act 1981 and Regulations 1984. Regulating medicines has relevance to DGs transportation as some medicines may meet the criteria for being classified as class 6.1 toxic or 6.2 infectious DGs for transport.

212. Medsafe approves medicines for general sale, supply, and distribution in New Zealand, noting that there are some exemptions in the Medicines Act that allow unapproved medicines to be supplied/distributed. Medsafe's assessment process ensures that packaging and labelling meets certain international standards for pharmaceuticals, including that medicines containers display appropriate information, are robust and fit for purpose.

213. Medsafe also regulates the medicine distribution chain by licensing wholesalers and pharmacies against accepted standards. These standards include those provided in the New Zealand Code of Good Manufacturing Practice for Manufacture and Distribution of Therapeutic Goods.

214. This code includes a part covering transport, specifically referencing cytotoxic substances (destructive to living cells). This provides that packaging must keep these substances self-contained in the event of breakage, and that labelling must indicate the substances' presence and note the safe handling procedures necessary in the event of damage.

215. In general, medicines regulation will ensure that medicines with toxic or infective potential will have been designed so that their packaging is fit for purpose, including for transportation through normal transport routes for medicines. Medsafe expects transport of medicines through the distribution chain to comply with all relevant regulatory requirements, including those relating to DGs transport rules. Although not specifically audited against, any issues noted by Medsafe during its regulatory activities would be raised with those concerned.

Ministry of Health (Communicable Diseases)

216. The MoH has the authority, for the purpose of preventing the outbreak or spread of infectious disease during a state of emergency or epidemic, to regulate the movement of people, ships, vehicles, aircraft, animals, or things under the Health Act 1956. Consequently, the MoH may have cause to regulate the movement of DGs (involving class 6.2 infectious substances) in these circumstances.

Ministry for Primary Industries

217. The Ministry for Primary Industries (MPI) is the lead government agency for biosecurity. The biosecurity system helps protect New Zealand's economy, environment, animal and human health, and a range of social and cultural values. It does this by stopping animal, organism or plant-related pests and diseases before they arrive, then dealing with these if they do cross our border.
218. MPI's activities around biosecurity may have relevance to DGs transportation where MPI are facilitating transport, or attempting to restrict transport, of things that might be classified as DGs (for example, infectious animals, diseases and toxins used for control).
219. MPI administers and enforces the Biosecurity Act 1993; provides inspectors at the border who manage risks from people, planes, vessels, and goods coming into the country; and maintains a system for rapidly responding to new detections of pests and unwanted diseases.
220. Activities MPI are involved in which may have relevance to DGs transportation include:
- *Controlled Area Notices* - used to help prevent the further spread of pests or unwanted diseases. These legally restrict movements of the pest or potential carriers of unwanted diseases in certain areas. The restrictions in place in some parts of the Auckland region to prevent the spread of kauri dieback is an example of a Controlled Area Notice in effect.
 - *Wallaceville laboratory diagnostic testing* - MPI's Wallaceville laboratory is a diagnostics reference laboratory. It receives and tests animal and marine samples from across the country and abroad which may contain infectious pests or diseases. Any samples that MPI sends or receives follow the International Air Transport Association (IATA) standards and if the material is specifically classified as DGs it would need to follow the IATA Regulations. Following these standards ensures that all dangerous material is appropriately packaged and managed, so that it can be handled and transported safely.
 - *Investigating potentially infectious pests or diseases* - If the public identify an organism they consider to be a pest or carrying an unwanted disease they can notify MPI through the MPI 0800 help line. MPI requests a photo and then either sends a qualified person to retrieve it, or a kit to the person who called the helpline. The kit includes gloves, packaging, and a chilly pack, to allow for the safe transport of the pest or disease to the MPI Wallaceville laboratory or the National Institute of Water and Atmospheric Research. An example of the type of infectious material that may be transported is an oyster with the parasite *Bonamia Ostreae*.

221. MPI also administer several other Acts, including the following, which may have relevance to transporting DGs (see Appendix A on page 62 for more details):

- Agricultural Compounds and Veterinary Medicines Act 1997
- Animal Control Products Limited Act 1991
- Animal Products Act 1999.

Regional and territorial authorities

222. Regional and territorial authorities have a duty as PCBUs under HSWA to consider the presence and location of a major hazard facility in their planning decisions in relation to major hazard facilities.

223. These authorities also have a broad power under the Resource Management Act 1991 (RMA) to manage hazardous substances, including their transportation, through their plans and policy statements. This is to achieve the RMA's purpose and carry out the function of integrated management of natural and physical resources in their region/district. However, the use of this power should be complementary¹⁴ to other regimes and only exercised where the potential environmental effects are not adequately addressed by other legislation, notably HSNO.¹⁵

Multi-jurisdictional oversight

224. While certain agencies may have defined roles around particular DGs, individual substances classified as DGs may fall within the jurisdiction of one or more agencies. Asbestos is an example of a substance with different controls imposed depending on the stage of its 'lifecycle' and its use or location. Several agencies may therefore be involved in managing asbestos and asbestos containing materials (ACMs).

225. Occupational exposure to asbestos is regulated by WorkSafe, while the MoH is concerned with public health issues, including non-occupational exposure. Regional councils and territorial authorities may have an interest in its disposal. Various types of asbestos appear, for example, in Schedule 2 'Dangerous Goods in Limited Quantities and Consumer Commodities' of Land Transport Rule: Dangerous Goods 2005.

226. ACMs (for example, house cladding) packaged, contained, and labelled in accordance with the WorkSafe Approved Code of Practice for the Management and Removal of Asbestos, are not classed as DGs when being transported. However, ACMs not compliant with the Code of Practice are subject to the requirements for transporting Class 9 (miscellaneous) DGs.

227. Pure asbestos, or a substance containing asbestos, would be a hazardous substance under HSNO and therefore the EPA would have some regulatory responsibility, but there are currently no approvals for these substances. ACMs are not covered by HSNO.

¹⁴ Different regimes have different purposes and principles.

¹⁵ For instance, HSNO may only have generic consideration of surrounding land uses and may not be adequate to appropriately manage the adverse effects associated with hazardous substances (that is, where located near a sensitive receiving environment), or to manage reverse sensitivity issues (that is, sensitive activities, such a new housing, proposed to be located in close proximity to an existing hazardous facility).

Appendix A – other peripheral related Acts

Radiation Safety Act 2016

1. The Radiation Safety Act 2016 (RSA) controls all dealings with ionising radiation. Section 12 of the RSA holds that every person who transports, stores, or disposes of a radiation source must do so safely and securely.
2. The Act focuses on regulating radiation sources and users. Its key requirements include that:
 - managing entities of radiation sources must hold a source licence authorising them to manage and control those sources
 - managing entities must register controlled radiation sources with the Office of Radiation Safety
 - individual users of radiation sources must hold a use licence, unless their use is otherwise authorised by the source licence
 - consent is required for anyone who wishes to import or export radioactive material, but not irradiating apparatuses.
3. Section 15 of the RSA provides that source licences are not required for transporting radioactive material.
4. The Act sets out high-level safety and security obligations in sections 9–12. There are many different types of radiation use and the requirements are often highly technical. The Act therefore authorises (section 86) the Director for Radiation Safety to issue codes of practice to set out more detailed requirements relating to individual areas of practice.
5. Such codes specify technical requirements that a person dealing with a radiation source must comply with to meet fundamental requirements (see reference to the latest code issued regarding safe transport of radioactive material below).

Radiation Safety Regulations 2016

6. The Radiation Safety Regulations 2016 do not directly reference any transport-related matters. The regulations cover authorisations around radiation sources, exemptions from requirements in the RSA relating to specific radiation sources and licence fees.

Code of Practice for the Safe Transport of Radioactive Material

7. The Code of Practice for the Safe Transport of Radioactive Material was issued by the Director for Radiation Safety in April 2019. It provides operational details on complying with section 12 of the RSA relating to the safe transport of radioactive material. In practice, the Code fully implements the International Atomic Energy Agency's Regulations for the Safe Transport of Radioactive Material. It puts obligations on consignors, carriers and consignees of radioactive materials that they must comply with particular requirements in specified paragraphs of the IAEA Transport Regulations.

8. While the three dangerous goods-related transport rules (air, sea and land) are referenced in the definitions section of the Code, there is no reference to them in the Code itself. However, in practice, all transport of radioactive material in New Zealand must comply with the International Atomic Energy Agency's Regulations for the Safe Transport of Radioactive Material, which is referenced, to varying degrees, in each of these rules.

Medicines Act 1981

9. The transport of medicines have some relevance to DGs transportation in that medicines may have hazardous properties (for example, be toxic or infectious - such as vaccines containing live viruses or bacteria). The Medicines Act 1981 regulates medicines, related products and medical devices in New Zealand. The Act ensures that the medicines and products used in New Zealand are safe and effective.
10. The Act defines what a medicine is and sets out:
 - requirements for the approval, classification, manufacture, sale, distribution, advertising, prescribing and dispensing of medicines
 - licensing requirements for the medicines distribution chain, including wholesalers and pharmacies
 - requirements for the approval of related products
 - post-market controls on medicines and medical devices.
11. The Act requires that medicines for general sale, supply and distribution in New Zealand must be approved, unless specifically exempted. Part of the assessment process ensures that packaging and labelling meets certain international standards for pharmaceuticals. These standards appear in compendia known as pharmacopoeias - for instance, the European Pharmacopoeia and the United States Pharmacopoeia. Although not necessarily setting out special requirements for infectious substances for example, they ensure that medicines containers display appropriate information, are robust and fit for purpose.
12. Under the Act the medicines distribution chain is also regulated by licensing wholesalers and pharmacies against accepted standards. Relevant to wholesaling and medicines transportation, is the New Zealand Code of Good Manufacturing Practice for Manufacture and Distribution of Therapeutic Goods, and specifically Part 4 Wholesaling of Medicines and Medical Devices.
13. Chapter 8 of Part 4 of the code covers transport and clause 8.8 specifically references cytotoxic substances¹⁶. These substances may be classified as DGs for transport – 6.1 Toxic (poisonous) substances. This clause holds that:
 - cytotoxic substances should be transported so that they are self-contained in the event of breakage

¹⁶ Cytotoxic means destructive to living cells – for example certain drugs used in treating leukaemia and other cancers.

- packaging of cytotoxic substances should bear a label stating that it contains these substances and noting the safe handling procedures necessary in the event of damage.
14. More widely, in Part 4 of the code, hazardous substances are referred to specifically in several clauses. For example, in Chapter 5 'Facilities' clause 5.7 states that there should be suitable storage conditions for toxic and hazardous substances. In Chapter 7 'Stock Handling and Control', clause 7.8 states that spills should be cleaned up quickly under supervision of a responsible person and that a written procedure should be followed for dealing with hazardous items (for example, cytotoxic medicines, oxidising agents). Clause 7.15 states that there should be a documented system for recognition and correct handling of cytotoxics and hazardous goods.

Health Act 1956

15. The Health Act 1956 sets out the roles and responsibilities of individuals to safeguard public health, including the Minister of Health, the Director of Public Health, and designated officers for public health. It contains provisions for environmental health, infectious diseases, health emergencies, and the national cervical screening programme.
16. Part 3 of the Act involves preventing the outbreak or spread of any infectious disease in a state of emergency or a civil defence situation. Under this part of the Act the MoH has authority to regulate the movement of people, ships, vehicles, aircraft, animals, or things, to prevent the outbreak or spread of infectious disease during a state of emergency or epidemic. This may have relevance to DGs transportation where this movement includes DGs as class 6.2 infectious substances.

Biosecurity Act 1993

17. The Biosecurity Act 1993 prescribes requirements for the exclusion, eradication and effective management of animal, organism or plant-related pests and diseases. These have the potential to cause harm to natural and physical resources and animal and human health in New Zealand. MPI is responsible for administering enforcing the Act's provisions.
18. The Act provides the legal framework for MPI and others to help keep things harmful to our biosecurity out of New Zealand. Further, it provides the framework for how we respond, and manage them, if any do enter the country. It covers:
 - pre-border risk management and standard setting
 - border management
 - readiness and response
 - long term pest management.
19. The Act may have relevance to DGs transportation where MPI are facilitating transport, or attempting to restrict transport, of things that might be classified as DGs (for example, infectious animals, diseases and toxins used for control). The UN Recommendations define class 6.2 infectious substances, for example, as those containing pathogens which can cause disease in humans or animals.

20. MPI also administers several other Acts which may have relevance to DGs transportation. The substances managed under these Acts may be transported and meet classification, for example, as class 6.1 toxic substances for transport. The Acts include:

Agricultural Compounds and Veterinary Medicines Act 1997

- 'agricultural compounds' may fit within the definition of DGs as these can be used for managing or eradicating pests
- 'hazardous substance' is defined under the Act as having the same meaning as in HSNO
- MPI can give directions for the transportation of agricultural compounds or hazardous substances under the Act.

Animal Control Products Limited Act 1991

- poisons factory businesses in Wanganui and Waimate are managed under this Act, which includes disposal provisions.

Animal Products Act 1999

- the Act forms New Zealand's legal framework for processing animal material into food, such as meat and dairy products
- includes managing hazardous biological, chemical or physical agents that could lead to adverse health impacts to humans and animals.

Resource Management Act 1991

21. The Resource Management Act 1991 (RMA) is the primary legislation governing the use of our land, water and air resources. The Act's purpose is the sustainable management of natural and physical resources. This is achieved through means including regional and territorial plans under the RMA for management of particular resources and activities with effects on the environment.
22. Historically, RMA plans have contained (and many still contain) controls on hazardous substances. For example, district plan sections on hazardous substances often refer to routes/transportation. This was due to a previous explicit requirement in the RMA for councils to control the adverse effects of the storage, use, transportation and disposal of hazardous substances.
23. However, the Resource Legislation Amendment Act 2017 (RLAA) removed the explicit function of regional and territorial authorities under sections 30 and 31 of the RMA to control these adverse effects. This was to ensure that RMA controls do not duplicate controls under HSNO and HSWA.
24. Councils still retain a broad power under the RMA to manage hazardous substances through their plans and policy statements to achieve the RMA's purpose and carry out the function of integrated management of natural and physical resources in their

region/district.¹⁷ However, this should be complementary to the other regimes (such as HSNO and HSWA), and only exercised where the potential environmental effects are not adequately addressed by other legislation.

25. The Quality Planning guidance¹⁸ on hazardous substances under the RMA indicates that in most cases, HSNO and HSWA controls are adequate to avoid, remedy or mitigate adverse environmental effects of hazardous substances. However, in particular circumstances it may be appropriate that RMA controls are used, subject to robust section 32 analysis,¹⁹ to ensure that such controls are effective and efficient (refer to areas where RMA controls may be necessary). The expectation is that controls on hazardous substances in RMA plans will be the exception rather than the norm.

Glossary of Terms

ACMs: asbestos containing materials

CAA: Civil Aviation Authority

DGs: dangerous goods

EPA: Environmental Protection Authority

GHS: United Nations Globally Harmonized System of Classification and Labelling of Chemicals

HSNO: Hazardous Substances and New Organisms Act 1996

HSWA: Health and Safety at Work Act 2015

IAEA: International Atomic Energy Agency

IAEA Transport Regulations: International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Material

IATA: International Air Transport Association

IATA Regulations: International Air Transport Association Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

ICAO Technical Instructions: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG Code: International Maritime Dangerous Goods Code

IMO: International Maritime Organisation

ISM: International Safety Management Code

LTA: Land Transport Act 1998

¹⁷ Note that sections 68(11) and 76(5) of the RMA still have explicit reference to councils' abilities to manage effects of hazardous substances on contaminated land.

¹⁸ The Quality Planning was established in 2001 and is a partnership between the New Zealand Planning Institute, the Resource Management Law Association, Local Government New Zealand, the New Zealand Institute of Surveyors, the New Zealand Institute of Architects and the Ministry for the Environment.

¹⁹ Evaluation/cost benefit analysis report, prepared under section 32 of the RMA.

MHFs: Major hazard facilities

MNZ: Maritime New Zealand

MO: Maritime Officer

MoH: Ministry of Health

MOSS: Maritime Operator Safety System

MPI: Ministry for Primary Industries

MTA: Maritime Transport Act 1994

MTOC: Maritime Transport Operator Certificate

MTOP: Maritime Transport Operator Plan

ORS: Office of Radiation Safety

PCBU: Person Conducting a Business or Undertaking

PSC: Port State Control

RA: Railways Act 2005

RLAA: Resource Legislation Amendment Act 2017

RMA: Resource Management Act 1991

RSA: Radiation Safety Act 2016

SMS: Safety Management System

SOLAS: International Convention for the Safety of Life at Sea

UN Regulations: United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations

Waka Kotahi: Waka Kotahi NZ Transport Agency