



Australian Government

Australian Maritime Safety Authority

MARINE ORDERS

Part 41

Carriage of dangerous goods

Issue 7

Order No. 7 of 2005

Pursuant to subsection 425(1AA) of the *Navigation Act 1912*, I hereby make this Order repealing Marine Orders Part 41, Issue 6, and issuing the attached Marine Orders, Part 41, Issue 7, to come into operation on 1 January 2006.

Clive Davidson
Chief Executive Officer

14 November 2005

Table of Contents

- 1 Purpose & power
 - 2 Definitions of words and phrases used in this Part
 - 3 Interpretation
 - 4 Application
 - 5 Modification or exemptions
 - 6 Review of decisions
 - 7 Requirements for dangerous goods and their packing, stowing and carriage
 - 8 Notice of intention to ship dangerous goods
 - 9 Handling precautions
 - 10 Inspections
 - 11 Information on incident response
 - 12 Incidents at sea involving dangerous goods
- Appendix — Interpretations, amplifications and requirements supplementary to the
IMDG Code

Previous issues

Issue 1, Order No. 11 of 1983

Issue 2, Order No. 1 of 1984

Issue 3, Order No. 5 of 1987

Issue 4, Order No. 1 of 1996

—*Amended by Order No.15 of 1998*

Issue 5, Order No. 14 of 2001

Issue 6, Order No. 4 of 2003

1 Purpose & power

1.1 Purpose

This Part of Marine Orders:

- (a) gives effect to the following Parts of Chapter VII of SOLAS:¹
 - (i) Part A, which deals with the carriage of dangerous goods in packaged form or in solid form in bulk, and in particular gives effect to the IMDG Code;² and
 - (ii) Part D, which deals with special requirements for the carriage of packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes on board ships, and in particular gives effect to the INF Code;³ and
- (b) prescribes matters for the purposes of the following provisions of the Navigation Act:
 - (i) section 253A, which provides that the regulations may prescribe matters in regard to the carriage of dangerous goods in ships;
 - (ii) section 255, which provides that the regulations may prescribe matters relating to the giving of notice of the intention to ship dangerous goods in ships; and
 - (iii) section 257, which provides that the regulations may make provision for or in relation to the stowing or carriage in ships of cargo.

1.2 Power

1.2.1 Section 191 of the Navigation Act provides for regulations to make provision for or in relation to giving effect to SOLAS.

1.2.2 Subsection 425(1) of the Navigation Act provides for regulations to be made prescribing matters required or permitted to be prescribed or which are necessary or convenient to be prescribed for carrying out or giving effect to the Act.

1.2.3 Subsection 425(1AA) of the Navigation Act provides that AMSA may make orders with respect to any matter for or in relation to which provision may be made by regulation.

¹ The current text of Chapter VII is to be found in the SOLAS Consolidated Edition 2004 and will be amended, with effect from 1 July 2006, by IMO Resolution MSC.170(79).

² Compliance with the IMDG Code also ensures compliance with the dangerous goods aspects of Annex III of MARPOL.

³ The INF Code is contained in the Supplement to the IMDG Code.

2 Definitions of words and phrases used in this Part

AMSA means the Australian Maritime Safety Authority established by the *Australian Maritime Safety Authority Act 1990*;

cargo includes mail and passengers' baggage;

consolidator means a person who packs, or supervises the packing of, cargo for various shippers into a cargo transport unit⁴ for transport by sea;

dangerous goods means any goods to which the IMDG Code is expressed to apply, whether specifically listed in the IMDG Code or not;

General Manager means the person occupying the position of General Manager, Maritime Operations, in AMSA;

handling, in relation to cargo, includes loading, unloading, stacking, stowing or restowing and any operation incidental to or arising out of any of those operations;

IMDG Code means the version of the International Maritime Dangerous Goods Code adopted by IMO Resolution MSC.122(75) and amended by MSC.157(78), also referred to as the IMDG Code 2004 Edition;

IMO means the International Maritime Organization;

INF Code means the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on board Ships, adopted by IMO Resolution MSC.88(71), amended by Resolutions MSC.118(74) and MSC.135(76) and, with effect from 1 July 2006, by Resolution MSC.178(79);

leakage and spillage includes leakage and spillage of dry contents, and emission of radiation at levels that are either directly or indirectly injurious to human health;

Manager, Ship Inspections, means the person occupying the position of Manager, Ship Inspections, in AMSA or, in respect of any particular purpose under this Part, a suitably qualified person authorised by the Manager, Ship Inspections, for that purpose;

MARPOL means the Convention as defined in the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*;

Navigation Act means the *Navigation Act 1912*;

⁴ The IMDG Code defines a cargo transport unit as a road freight vehicle, a railway freight wagon, a freight container, a road tank vehicle, a railway tank wagon or a portable tank.

originating shipper means any person, organisation or Government which prepares a consignment of dangerous goods to be shipped by a consolidator in a cargo transport unit;

penal provision means a penal provision for the purposes of Regulation 4 of the Navigation (Orders) Regulations.⁵

person in charge means the person in charge for the purposes of Marine Orders, Part 32 (Cargo Handling Equipment);

shipper means any person, organisation or Government which prepares a consignment for transport and, in the case of dangerous goods shipped by cargo transport unit in less than full cargo transport unit load, includes the consolidator of those goods;

SOLAS means the Safety Convention as defined in the Navigation Act;

surveyor means a person appointed to be a surveyor under s.190 of the Navigation Act;

surveyor-in-charge means:

- (a) in the case of a port where a marine survey office of AMSA is situated—the surveyor in charge of that office; and
- (b) in the case of any other port—the surveyor in charge of the marine survey office of AMSA nearest to that port;

tanker means a cargo ship constructed or adapted for the carriage in bulk of liquid cargoes of a flammable nature;

underdeck space means a hold or a covered space for the stowage of cargo and includes a space within a superstructure or deck erection but does not include an open deck space for vehicles;

3 Interpretation

3.1 In regulation 5 of Chapter VII of SOLAS, **approved by the Administration** means:

⁵ Subregulation 4(1) of the Navigation (Orders) Regulations provides that a person who fails to comply with a provision of an order made under subsection 425(1AA) of the Navigation Act that is expressed to be a penal provision is guilty of an offence and is punishable by:

- (a) if the offender is an individual—a fine not exceeding 20 penalty units; or
- (b) if the offender is a body corporate—a fine not exceeding 50 penalty units.

By virtue of section 4(AA) of the *Crimes Act 1914*, a penalty unit is currently \$110.

- (a) in respect of an Australian ship—approved by the Manager, Ship Inspections, or a survey authority;
- (b) in respect of a ship registered in a country other than Australia—approved by or on behalf the Administration of that country;

3.2 Unless otherwise specified in this Part, a reference to ‘competent authority’ in the IMDG Code is, in relation to a shipment of dangerous goods from Australia, to be read as a reference to the Manager, Ship Inspections.

3.3 A reference in this Part to a class of dangerous goods is a reference to a class as defined in Part 2 of the IMDG Code.

3.4 Words and phrases defined in the IMDG Code have the same meaning in this Part, unless otherwise defined in this Part.

3.5 In this Part:

- (a) headings and subheadings are part of the Part;
- (b) the Appendix is part of the Part;
- (c) a footnote is not part of the Part, but may provide additional information or guidance in applying the Part.

4 Application

Unless otherwise provided, this Part applies to and in relation to the carriage of dangerous goods in:

- (a) a ship registered in Australia; or
- (b) a ship registered in a country other than Australia that is in the territorial sea of Australia or in waters on the landward side of the territorial sea.

However, it does not apply to:

- (c) dangerous goods forming part of the equipment or stores required for the navigation, safety or maintenance of the ship or required for the intended operations of the ship; or
- (d) dangerous goods to the extent that their handling is regulated under the *Explosives Act 1961*.

5 Modifications or exemptions⁶

5.1 Modification

The Manager, Ship Inspections, being satisfied in any particular case that a requirement of this Part may be modified or varied without danger to person or property, may allow such modification to apply in that case either unconditionally or subject to such conditions as that officer considers appropriate.

5.2 Exemption

The Manager, Ship Inspections, being satisfied that the application of a requirement of this Part would in the circumstances be unreasonable, may exempt the shipper or the master, owner or agent of a ship, or a ship included in a class of ships, from compliance with that requirement to the extent specified, subject to any conditions specified.

5.3 Modifications and exemptions not to contravene SOLAS

The Manager, Ship Inspections, must not allow a modification under 5.1 or give an exemption under 5.2 if it would contravene SOLAS.

6 Review of decisions

6.1 Internal review

6.1.1 If the Manager, Ship Inspections, makes a decision under this Part, a person affected by the decision may, within three months of the notification of the decision or within such longer period as determined by the General Manager, apply to the General Manager for review of that decision.

6.1.2 An application for internal review under 6.1.1 must be made in writing to the General Manager and must be accompanied by such information as the General Manager requires to enable the decision to be properly reviewed.

6.1.3 The General Manager may:

- (a) affirm the original decision by the Manager, Ship Inspections; or
- (b) make any decision that could be made by the Manager, Ship Inspections, in accordance with this Part.

⁶ Applications for modifications or exemptions should be made to the Manager, Ship Inspections, and should be accompanied by relevant information. The Manager, Ship Inspections, may seek additional information to assist in reaching a decision.

6.2 Review by the AAT

6.2.1 Application may be made to the Administrative Appeals Tribunal for review of a decision by the General Manager under 6.1.3.

6.2.2 The General Manager must give his or her decision in writing within 28 days of receiving the application for internal review. The notice must include a statement to the effect that, if the person is dissatisfied with the decision, application may, subject to the *Administrative Appeals Tribunal Act 1975*, be made to the Administrative Appeals Tribunal for review of the decision. The notice must also include a statement to the effect that the person may request a statement under section 28 of that Act.

6.2.3 Failure to comply with 6.2.2 in relation to a decision does not affect the validity of that decision.

7 Requirements for dangerous goods and their packing, stowing and carriage⁷

For the purposes of subsection 253A(2) of the Navigation Act,⁸ the requirements with which dangerous goods and the packing, stowing and carriage of such goods must comply, are:

- (a) the provisions of Parts A and D of Chapter VII of SOLAS;
- (b) the provisions of the IMDG Code expressed by that Code to be mandatory;
- (c) the IMDG Code as interpreted, amplified or supplemented by the Appendix to this Part; and
- (d) for goods to which the INF Code applies, that Code.⁹

⁷ There may be additional requirements under the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983*, and Marine Orders, Part 94 (Pollution Prevention (Packaged Harmful Substances)), which give effect to the dangerous goods aspects of MARPOL.

⁸ Subsection 253A(2) provides that a person shall not send by, or carry in, a ship any dangerous goods which do not, or the packing, stowing or carriage of which does not, comply with such requirements as are prescribed. By virtue of section 4AA and 4AB of the *Crimes Act 1914*, the penalty for contravention is a fine of up to \$11,000 or imprisonment for up to 4 years, or both. Section 254 of the Navigation Act provides that if, in the opinion of AMSA, the carriage of any particular cargo or goods in any ship would endanger its safety or interfere with the comfort of its passengers or crew, it may notify the master or owner accordingly. It is an offence to take the ship to sea with such cargo or goods on board and the ship may be detained until they have been removed from the ship. To enable AMSA to carry out this function, section 413 of the Navigation Act gives a surveyor wide powers to inspect ships, premises and documentation. Failure to give adequate access to a surveyor may result in a ship being detained until its safety can be determined. Where a ship is required by SOLAS II-2/54.3 or SOLAS II-2/19.4, as appropriate, to carry a Document of Compliance for the carriage of dangerous goods, dangerous goods not carried in accordance with the Document of Compliance may be regarded as endangering the safety of that ship.

8 Notice of intention to ship dangerous goods

8.1 How notification is to be made

8.1.1 Section 255 of the Navigation Act requires that, before any dangerous goods are shipped in any ship, the shipper thereof must give notice of intention to ship the goods in the manner and to the person prescribed.¹⁰

8.1.2 The manner of giving notice is by completing a Multimodal Dangerous Goods Form,¹¹ and the person or persons to whom that form must be provided is as follows:

- (a) if the dangerous goods are to be consolidated into a cargo transport unit:
 - (i) the originating shipper must provide one copy of the Multimodal Dangerous Goods Form to the consolidator and one copy to the master; and
 - (ii) the consolidator must provide a Multimodal Dangerous Goods Form covering the cargo transport unit to the master;¹²
- (b) in any other case—the shipper must provide the Multimodal Dangerous Goods Form to the master; and
- (c) whenever requested to do so by the surveyor-in-charge, the shipper must provide a copy of the Multimodal Dangerous Goods Form to the surveyor-in-charge.

8.1.3 A Multimodal Dangerous Goods Form required to be sent to the master of a ship should be sent as soon as practical after arrival of the ship at the port of shipment, and in any case before the goods are loaded on board the ship.

⁹ The INF Code is mandatory under Chapter VII of SOLAS from 1 January 2001 for ships carrying INF Cargo. The INF Code requires a ship engaged in that trade to have an *International Certificate of Fitness for the carriage of INF Cargoes*.

¹⁰ Section 255 of the Navigation Act specifies a penalty up to \$2,000 for non-compliance. By virtue of sections 4AA and 4AB of the *Crimes Act 1914*, this penalty is now \$2,200. In addition, section 137 of the *Criminal Code* provides for a maximum penalty of 12 months imprisonment for giving information or documents that are false or misleading in a material particular.

¹¹ The Multimodal Dangerous Goods Form is set out in the IMDG Code and is obtainable from AMSA through its website at www.amsa.gov.au.

Strict adherence to the layout of the form is not necessary so long as all the specified information is provided. If dangerous goods documentation is sent electronically, the signature(s) may be replaced by the name(s) (in capitals) of the person(s) authorised to sign. Shippers may use fax or email to deliver the form. Certain classes of dangerous goods may require additional information or certification, as outlined in chapter 5.4 of the IMDG Code. If information provided in a form is illegible, or the person making the required declarations cannot be identified, notice will not be considered as having been given in accordance with the Navigation Act.

¹² A consolidator providing documentation on behalf of the originating shipper must meet the notification requirements of the originating shipper as well as those of the consolidator.

8.1.4 The master¹³ must provide to the surveyor-in-charge a special list or manifest¹⁴ relating to the goods that are to be loaded on board the ship in accordance with 8.1.5.

This is a penal provision.

8.1.5 The special list or manifest referred to in 8.1.4 should be sent as soon as practical, but in any case before the goods are placed on board the ship. If it is not practical for all the information required to be sent within 24 hours before the goods are to be loaded, the master must provide the following information at least 24 hours before the goods are to be loaded:

- (a) ship name;
- (b) IMO number;
- (c) port of loading;
- (d) date of loading and departure;
- (e) classes of goods being loaded.

8.1.6 The master must inform the surveyor-in-charge in writing of any subsequent changes to the special list or manifest before the goods are loaded on board the ship.

This is a penal provision.

8.1.7 If dangerous goods are being transhipped, it is sufficient for the person organising the transhipment to provide the master with a copy of the dangerous goods transport documentation¹⁵ covering the previous part of the voyage, accompanied by a Multimodal Dangerous Goods Form containing ship and voyage information for the intended voyage and endorsed to the effect that the goods have been transhipped.

¹³ Although in many cases the special list or manifest may be prepared and submitted by a person acting on the master's behalf (eg the ship's agent), the master is the person responsible for ensuring that it is provided.

¹⁴ One form of special list or manifest, titled the Dangerous Goods Manifest, is contained in IMO Circular FAL.2/Circ.51/Rev1, reproduced in the Appendix to the Supplement to the IMDG Code. Other forms that provide similar information are acceptable. Fax or email may be used to deliver the form.

¹⁵ See chapter 5.4 of the IMDG Code. A Multimodal Dangerous Goods Form is an example of a dangerous goods transport document.

9 Handling precautions¹⁶

9.1 Responsibility of master

If dangerous goods are on board ship, or are to be loaded into or onto a ship, or unloaded from a ship, the master must ensure a safe system of work for crew members and other persons on board the ship. In particular, the master must ensure that:

- (a) adequate warning of the risks are given to crew members and other persons on board the ship and that they are advised of suitable precautions to be taken;
- (b) any incident involving dangerous goods, including leakage and spillage of goods that are or might be dangerous goods, occurring on board the ship are reported as soon as possible to the surveyor-in-charge;¹⁷
- (c) no bunkering is carried out at any time during the handling of dangerous goods of Class 1 (other than Class 1.4S); and
- (d) radio transmitters are not operated in an unsafe manner during loading or unloading of explosive articles.¹⁸

This is a penal provision.

9.2 Responsibility of person in charge

If dangerous goods are on board ship, or are to be loaded into or onto a ship, or unloaded from a ship, the person in charge must ensure a safe system of work for persons engaged in loading or unloading of cargo. In particular, the person in charge must ensure that:

- (a) adequate warning of the risks are given to persons engaged in loading or unloading of cargo and that they are advised of suitable precautions to be taken;
- (b) any incident involving dangerous goods, including leakage and spillage of goods that are or might be dangerous goods, occurring during loading or unloading onto a

¹⁶ The precautions in this Provision 9 are in addition to the safety requirements of Marine Orders, Part 32 (Cargo Handling Equipment).

¹⁷ A suitable form to assist in reporting the incident (known as AMSA Form 18) can be downloaded from the AMSA Website on <http://www.amsa.gov.au>. The port authority may also require to be notified.

¹⁸ A portable VHF or UHF radio transmitter, other than a mobile telephone, may be operated in the vicinity of an explosive article provided that the aerial or aerial system is more than 2 metres from that article. Otherwise, no radio transmitter or radar transmitter, including a mobile telephone, may be operated within 100 metres of any explosive article. Radio transmitters and radar transmitters located on the ship should be rendered inoperable by opening the main power switches to the transmitters or by operation of interlocks. Appropriately located notices should be displayed warning against the operation or energizing of transmitters.

ship, or prior to loading onto a ship, is reported as soon as possible to the surveyor-in-charge;¹⁹

- (c) dangerous goods showing evidence of damaged packagings are not handled without permission of the surveyor-in-charge;
- (d) goods that are, or might be, dangerous goods that are leaking or spilling are not handled without permission of the surveyor-in-charge; and
- (e) radio transmitters are not operated in an unsafe manner during loading or unloading of explosive articles.

This is a penal provision.

9.3 Responsibility of individuals

If dangerous goods are on board ship, or are to be loaded into or onto a ship, or unloaded from a ship, each person on board a ship, or engaged in loading or unloading of cargo, must:

- (a) act upon any warnings or advice given to him or her by the master or person in charge;
- (b) refrain from smoking, except in such part of the ship as the master designates for such purpose;
- (c) not use or permit another person to use a spark or flame, except in such part of the ship as the master designates for such purpose; and
- (d) not engage in, or permit another person to engage in, metal welding or cutting, on a ship while dangerous goods are on board, except in such part of the ship as the master designates for such purpose.²⁰

This is a penal provision.

10 Inspections

10.1 A surveyor may inspect any cargo transport unit in which dangerous goods:

- (a) have been packed; or
- (b) are being packed; or
- (c) are intended to be packed,

¹⁹ A suitable form to assist in reporting the incident (known as AMSA Form 18) can be downloaded from the AMSA Website on <http://www.amsa.gov.au>. The port authority may also require to be notified.

²⁰ The local port authority should also be consulted before any burning or welding is carried out within port limits, on a ship containing dangerous goods.

in order to establish whether the relevant provisions of the IMDG Code are being complied with.

10.2 A surveyor may inspect any dangerous goods on board a ship arriving at a port in Australia.

10.3 If a surveyor considers that a cargo transport unit containing dangerous goods does not comply with the relevant provisions of the IMDG Code, the surveyor may direct that the cargo transport unit must not be loaded on or unloaded from a ship until:

- (a) a surveyor is satisfied that the cargo transport unit complies with the relevant provisions of the IMDG Code; or
- (b) specified conditions have been met.

10.4 A person must not load or unload a cargo transport unit on or from a ship in contravention of a direction given under 10.3.

This is a penal provision.

11 Information on incident response

11.1 The operator of a ship on which it is intended that dangerous goods be carried must issue detailed instructions on emergency response and medical first aid relevant to incidents involving dangerous goods in packaged form, complying with Regulation VII/2.4 of SOLAS.²¹

This is a penal provision.

11.2 The master of a ship on which dangerous goods are to be carried must ensure that the detailed instructions on emergency response and medical first aid issued by the ship's operator are readily available on board the ship.

This is a penal provision.

²¹ Compliance with 5.4.3.2.1 of the IMDG Code will meet the requirements of this provision.

12 Incidents at sea involving dangerous goods

12.1 If an incident takes place involving the loss or likely loss overboard of dangerous goods in packaged form into the sea, the master or other person having charge of the ship must report the particulars of such incident without delay and to the fullest extent possible to the nearest coastal State.²²

This is a penal provision.

12.2 In the event of a ship referred to in 12.1 being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the owner or operator of the ship, or agent thereof, must make or complete the report.

This is a penal provision.

* * * * *

²² If a marine pollutant incident report is made under Marine Orders, Part 94 (Marine Pollution Prevention—Packaged Harmful Substances), a further report under 12.1 is not required.

Appendix

Interpretations, amplifications and requirements supplementary to the IMDG Code

1 Application

The provisions of this Appendix apply to a ship:

- (a) registered in Australia—
 - (i) when loading dangerous goods in an Australian port; and
 - (ii) when loading dangerous goods in a port of another country provided that such loading must, in the case of conflict, comply with the statutory requirements of that country; and
- (b) registered in a country other than Australia—when loading dangerous goods in an Australian port.

2 Interpretation of the IMDG Code

In applying the IMDG Code, **foodstuffs** means any food, pharmaceutical or other material intended for human or animal ingestion but does not include skin creams and liniments etc. not meant for ingestion.

3 Packaging Approval

3.1 Subject to 3.2, packagings for dangerous goods must be tested to the requirements of Part 6 of the IMDG Code and approved by the competent authority.²³

3.2 All Type B packaging for radioactive materials must be approved by the Manager, Ship Inspections.

²³ Packagings approved by State and Territory government competent authorities to the requirements of the Australian Dangerous Goods Code, or the UN Recommendations on the Transport of Dangerous Goods (colloquially known as the “Orange Book”) are acceptable, provided that such requirements are not inferior to those in the IMDG Code.

4 Cargo transport units

4.1 The packing of cargo transport units must comply with the IMO/ILO/UN ECE *Guidelines for Packing of Cargo Transport Units*.²⁴

4.2 The packing of dangerous goods into cargo transport units must be supervised by a competent person²⁵ with a knowledge of the requirements of the Code and of the IMO/ILO/UN ECE *Guidelines for Packing of Cargo Transport Units*.

4.3 A cargo transport unit in transit under fumigation must comply with the relevant provisions of the *Recommendations on the Safe Use of Pesticides in Ships*²⁶ and must, as far as practicable, comply with the relevant provisions of the IMO/ILO/UN ECE *Guidelines for Packing of Cargo Transport Units*.

5 Portable Tanks, including Tank Containers

5.1 Interpretations

5.1.1 In Chapters 6.7, 6.8 and 6.9 of the IMDG Code:

authorized body means a survey authority approved for the purposes of the Navigation Act²⁷ or a State or Territory competent authority for road or rail transport;

national material standards means the yield and ultimate strength, ductility and other mechanical or chemical criteria specified in Australian Standard AS 1210 (Pressure Vessels) or, if such details are not specified in AS 1210, as determined by the Manager, Ship Inspections; and

recognised pressure vessel code means, for tanks designed and built for registration in Australia, the Australian Standard AS 1210 (Pressure Vessels) or other standard which is:

- (a) applicable to marine transport;
- (b) suitable for pressures under consideration;

²⁴ The *Guidelines for Packing of Cargo Transport Units* can be found in the Supplement to the IMDG Code.

²⁵ It is highly desirable that the supervisor has at least undertaken the training specified in Chapter 1.3 of the IMDG Code.

²⁶ The *Recommendations on the Safe Use of Pesticides in Ships* can be found in the Supplement to the IMDG Code.

²⁷ The following survey authorities are currently approved: American Bureau of Shipping; Bureau Veritas; Det Norske Veritas; Germanischer Lloyd; Lloyd's Register; and Nippon Kaiji Kyokai. Other survey authorities may be approved by AMSA if they meet relevant criteria.

- (c) suitable for the types of substances to be carried in the portable tank; and
- (d) otherwise appropriate and acceptable to the Manager, Ship Inspections.

5.1.2 Where the IMDG Code specifies compliance with the requirements of the competent authority for road or rail transport, this means compliance with the relevant sections of the Australian Code for the Transport of Dangerous Goods by Road and Rail.

5.2 Additional requirements

In addition to the requirements of this Part:

- (a) the frames of tank containers must be constructed, tested and marked in accordance with the requirements of Marine Orders, Part 44 (Safe containers); and
- (b) portable tanks, other than tank containers, that are designed to be lifted must be tested and marked in accordance with Marine Orders Part 32 (Cargo Handling Equipment).

6 Stowage on deck

If dangerous goods are stowed on deck, they must not:

- (a) obstruct the approach to, or exit from (including an emergency escape route), any accommodation space, working space, hold, or underdeck space; or
- (b) obstruct the access to, or interfere with the operation of, any lifesaving appliances, fire-fighting appliances, closing appliances, or the proper navigation of the ship.

7 Special requirements for particular substances

7.1 Interpretations

In 7.8.3.1 of the IMDG Code, the competent authority is Department of Environment & Heritage.

7.2 Class 1 substances (explosives)²⁸

7.2.1 The detailed examination required by 7.4.6.4.2 of the IMDG Code of a cargo transport unit to be loaded with goods of Class 1 must, subject to 7.2.2, be carried out by a surveyor.²⁹

²⁸ State or Territory legislation for road or rail transport may require the lining of containers or the like for other Class 1 substances or articles.

7.2.2 Because the nature and quantity of goods of Class 1.4S may be of low risk, the surveyor-in-charge may determine that an inspection by a surveyor of a cargo transport unit to be loaded only with goods of Class 1.4S is not necessary. In such cases the shipper must :

- (a) ensure that the cargo transport unit is structurally serviceable; and
- (b) meet other requirements of 7.4.6.4.2 of the IMDG Code.

7.2.3 Explosives must not be carried in a tanker except with the approval of the Manager, Ship Inspections, such approval being subject to such conditions as the Manager, Ship Inspections, may consider necessary.

7.3 Class 7 substances (radioactive)

The safe stowage and securing of Class 7 substances, both in a cargo transport unit and on board ship, is to be verified by examination by a surveyor in a manner determined by the Manager, Ship Inspections, to be appropriate to the radioactive hazard presented by the cargo.

7.4 Hazardous waste materials

All export shipments of hazardous waste materials must comply with the provisions of this Part. A copy of the waste movement document as required by 7.8.3.2 of the IMDG Code and provided by Department of Environment & Heritage must be attached to the Multimodal Dangerous Goods Form.³⁰

8 Stowage of flammable gases or liquids below deck

8.1 Application

A ship will not be permitted to load or carry flammable liquids of packaging group I or II or flammable gases (whether by main or subsidiary risk) in an underdeck space unless the Document of Compliance required by SOLAS Chapter II-2,³¹ regulation 54.3³² or regulation 19.4,³³ as applicable, permits such carriage. Where SOLAS Chapter II-2, regulation 54 does not apply to a ship, and no Document of Compliance is carried,

²⁹ Requests for inspection of shipments of Class 1 dangerous goods should be made to the surveyor-in-charge as early as possible.

³⁰ Such shipments also need to comply with the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*, administered by the Department of Environment and Heritage.

³¹ The current text of Chapter II-2 is to be found in SOLAS Consolidated Edition 2004.

³² Regulation 54.3 refers to Chapter II-2 of SOLAS Consolidated Edition 2001.

³³ Regulation 19.4 refers to Chapter II-2 of SOLAS Consolidated Edition 2004.

flammable gases or liquids will only be permitted to be loaded in a specified underdeck space when authorised by the flag Administration, having regard to the precautions listed in 8.2 to 8.4.

8.2 Electrical

8.2.1 All switches, fuses, lamp fittings or other electrical appliances within the compartment must be electrically isolated.

8.2.2 If the electric cables and junction boxes within a compartment cannot be electrically isolated, dangerous goods must not be stowed in the compartment unless the compartment complies with the following requirements:

- (a) the electric cables must be enclosed in heavy gauge steel conduit or be protected by an electrically continuous metal sheathing and steel wire armouring, or be of the mineral insulated metal sheathed type;
- (b) tests of the insulation resistance of any cable traversing the compartment must be made to ascertain the condition of the cable and the results of such tests must be to the satisfaction of the surveyor;
- (c) any junction box within the compartment serving a circuit not isolated must be gas tight, of sound construction, and be sited or protected to prevent mechanical damage; and
- (d) a live circuit must not include or serve an electrical appliance within the compartment.

8.3 Ventilation

8.3.1 Ventilators serving the compartment must be so sited that exhaust gases and vapours are safely dispersed so as not to endanger the ship or persons on board.

8.3.2 The compartment must be thoroughly ventilated after the dangerous goods have been discharged and no source of ignition is to be introduced into the compartment until the danger of explosion or fire has been removed.

8.4 Bilges and wells

Where a flammable or toxic gas or liquid is stowed in a compartment the bilge suction pipe from that compartment into the machinery space must be isolated either by fitting a blank flange or by a closed lockable valve. Warning notices must be displayed at appropriate conspicuous locations.

* * * * *