

# **Dangerous Goods Management Guideline – Port of Melbourne**

NOVEMBER 2022

## Revision history

Date	Version	Name	Reason
October 2022	1	C Morris	1 <sup>st</sup> Ports Victoria issue
November	1.1	C Morris	Minor legislative update

## Approval history

Date	Name and title	Signature
November 2022	C Strawbridge, GM HSE, Emergency Management and Risk	

## Document Location:

The most up-to-date document and central source for referenced forms and additional guidelines can be located on the Ports Victoria website at <http://www.vicports.vic.gov.au>

# Contents

Foreword.....	1
<b>1. Preliminary .....</b>	<b>2</b>
1.1. Purpose.....	2
1.2. Scope and Application .....	2
1.3. Requirements .....	2
1.4. Marking and packaging:.....	2
1.5. Definitions .....	3
ADG Code .....	3
Agent .....	3
AMSA.....	3
AS3846 .....	3
Berth .....	3
Correct technical name.....	3
Dangerous Goods .....	3
EPA.....	3
Handling.....	3
Hazard .....	3
IMDG Code.....	4
IAEA Regulations .....	4
Low Specific Activity (LSA) material .....	4
Melbourne VTS.....	4
Packing Group.....	4
Port of Melbourne Operations (Port of Melbourne) .....	4
Port of Melbourne DPAO.....	4
Proper shipping name .....	4
Port Safety Officer (PSO).....	4
Risk.....	5
Responsible Person .....	5
Regulatory Authority .....	5
Reasonably Practicable.....	5
Ports Victoria .....	5
WorkSafe .....	5
1.6. Referenced Documents .....	5
<b>2. Risk Management Process .....</b>	<b>5</b>
2.1. Hazard Identification .....	5
2.2. Risk Assessment .....	6
Risk Management Reference Document: .....	6
2.3. Training .....	6

2.4.	Training Outcomes .....	7
2.5.	Inspections and Audits.....	7
<b>3.</b>	<b>Spill Containment .....</b>	<b>7</b>
<b>4.</b>	<b>Impact of Spills .....</b>	<b>7</b>
<b>5.</b>	<b>Emergency Actions .....</b>	<b>8</b>
5.1.	Emergency Procedures .....	8
5.2.	Emergency Plans.....	8
<b>6.</b>	<b>Advance Notification .....</b>	<b>8</b>
6.1.	Form of the notification .....	8
6.2.	Information to be provided in the notification:.....	9
<b>7.</b>	<b>Limitations .....</b>	<b>9</b>
<b>8.</b>	<b>Dangerous Goods of Class 1: Explosives .....</b>	<b>10</b>
8.1.	New Dangerous Goods (Explosives) Regulations 2022 .....	10
8.2.	Scope of Section:.....	10
8.3.	Section 4 of AS 3846 deals with:.....	10
<b>9.</b>	<b>Dangerous Goods of Class 2, 3, 4, 5, 8 or 9.....</b>	<b>11</b>
9.1.	Scope of section .....	11
9.2.	General Requirements for Berths.....	11
	Table 2 - Dangerous cargoes to be delivered to and removed from a berth within 12 hours .....	11
	DG Class.....	11
	Packaging group .....	11
	Description.....	11
9.3.	Other Dangerous Goods delivered to and removed from a berth within 5 days .....	12
9.4.	Class 5.1 dangerous cargoes.....	12
9.5.	Class 5.2 material having a subsidiary risk .....	12
9.6.	Dangerous Goods of Class 6.2 .....	12
9.7.	Restricted area .....	12
9.8.	Segregation.....	13
9.9.	Road and rail transport .....	13
<b>10.</b>	<b>Requirements for Dangerous Goods of Class 7.....</b>	<b>13</b>
10.1.	Scope of section .....	13
10.2.	Transport of Class 7 dangerous goods in port areas .....	13
10.3.	Storage of Class 7 dangerous goods in onshore stores .....	13
10.4.	Separation from places frequented by persons.....	14
	Table 3 - Separation of yellow label packages or freight containers from places frequented by persons .	14
	Sum of transport indices .....	14
	Minimum separation distances (m) .....	14
10.5.	Stowage on board a ship.....	14

## Foreword

This document sets out Ports Victoria's requirements and recommendations for the safe handling and storage of Dangerous Goods in the Port of Melbourne. Its purpose is to assist ship owners and Masters (or their agents), berth operators, stevedores, and leaseholders to provide the minimum acceptable safety requirements for facilities and operating procedures when handling dangerous goods to ensure the protection of people, property, and the environment. These activities must be carried out in compliance with the following:

- Australian Dangerous Goods Code (ADG) edition 7.7
- Occupational Health and Safety Act 2004
- Occupational Health and Safety Regulations 2017
- Dangerous Goods Act 1985
- Dangerous Goods (Storage and Handling) Regulations 2012
- Dangerous Goods (Transport by Road or Rail) Regulations 2018
- Dangerous Goods (HCDG) Regulations 2016
- Dangerous Goods (Explosives) Regulations 2022
- International Maritime Dangerous Goods Code 2020
- Australian Standard 3846-2005: The handling and transport of dangerous cargoes in port areas
- IAEA Regulations for the Safe Transport of Radioactive Material
- Radiation Protection Series C-2 (Rev.1) Code of Practice for the Safe Transport of Radioactive material (2019)
- Radiation Act 2005
- Radiation Regulations 2017
- AS/NZS ISO 31000:2018 Risk management – Principles and guidelines
- Environment Protection Act 2017, and Associated Regulations

The Dangerous Goods (Explosives) Regulations (2022) through its attached codes of practice allow the use of specific guidelines and standards to achieve the requirements of the regulations. As such, for practical and operational purposes, Ports Victoria requires that any ship, berth operator, company or individual, who is involved in the handling, transport, and storage of Dangerous Goods, complies with the requirements of AS 3846 2005.

Where the requirements of AS 3846 conflicts with Federal or State Dangerous Goods Acts and Regulations, the Acts and Regulations shall apply.

Ports Victoria, Port of Melbourne Operations (Port of Melbourne), tenants, berth operators, stevedores, ship owners, ship masters and shipping agents all share responsibility for safety in the port and have an obligation to port users and the local community to ensure that operational activities in the port are conducted in a safe, secure, and environmentally sustainable manner.

Key critical factors in place when handling Packaged Dangerous Goods:

- Legislative notification requirements are met
- Compliant separation and storage requirements exist at all times
- Safe infrastructure and work systems are in place
- Trained staff undertake the operation
- A risk assessment covering all facets of the transfer operation is current
- Monitoring programs for safe and effective progression of the transfer operation are evident

- A coordinated reporting and investigation system is active
- Planned emergency, incident and recovery management processes are tested
- Emergency equipment and pollution response systems are in place.

Note: Ports Victoria and Port of Melbourne reserves the right at any time to refuse or restrict the passage of goods deemed to be dangerous or hazardous through the port.

## 1. Preliminary

### 1.1. Purpose

The purpose of this “Dangerous Goods Management Guideline” is to provide practical guidance on the safe and effective handling, transport, and storage of Dangerous Goods in the port of Melbourne.

- This guideline is intended to assist port operators, tenants, berth operators, stevedores, ship owners, ship masters and shipping agents in complying with current National and State Health & Safety Legislation and Regulations. It recommends work practices that can be used to reduce the risk of work-related injury, damage to property and the environment.
- A risk assessment process should be adopted by all parties involved with the handling and transport of Dangerous Goods. The assessment may identify other specific recommendations not covered by this guideline. In such circumstances, additional risk control measures must be considered.

### 1.2. Scope and Application

This guideline covers:

- Dangerous goods, hazardous substances, harmful materials, and articles including environmentally hazardous substances (marine pollutants) and wastes, covered by the International Maritime Dangerous Goods Code (IMDG Code).

### 1.3. Requirements

Ports Victoria requires that any ship, berth operator, company or individual, who is involved in the handling, transport, and storage of Dangerous Goods and articles containing dangerous goods, complies with the requirements of the relevant Acts, Regulations and Australian Standard 3846.

Certain sections AS 3846 may refer to other State, National and International codes, and regulations for further guidance. Where the requirements of AS 3846 conflicts with Federal or State Dangerous Goods Acts and Regulations, the Acts and Regulations shall apply.

### 1.4. Marking and packaging:

All dangerous cargoes delivered to or from the port area shall be packaged, marked, labelled, and placarded in accordance with the International Maritime Dangerous Goods Code (IMDG) code. The Australian Dangerous Goods Code provides the recognition for marking, labelling and documentation of Dangerous Goods containers imported from overseas provided it contains all the information required as per the ADG Code.

## 1.5. Definitions

### ADG Code

Australian Dangerous Goods Code.

### Agent

A person or organisation responsible for the administrative details of a ship's visit to the port.

### AMSA

Australian Maritime Safety Authority (Commonwealth).

### AS3846

Australian Standard 3846–2005: The handling and transport of dangerous cargoes in port areas.

### Berth

Any dock, pier, jetty, quay, wharf, marine terminal, or similar structure (whether floating or not) at which a ship may tie up. It includes any plant or premises, other than a ship, used for purposes ancillary or incidental to the loading or unloading of dangerous cargoes.

### Correct technical name

Has the meaning given in the International Maritime Organisation (IMO) International Maritime Dangerous Goods Code (IMDG Code) and is synonymous with 'proper shipping name'.

### Dangerous Goods

Substances or articles that –

- a. Satisfy the UN tests and criteria for determining whether they are dangerous goods; or
- b. Are listed in the IMDG Code; or
- c. Are determined to be dangerous goods by the competent authority.

NOTE: UN tests and criteria are given in the UN Manual of Tests and Criteria and the UN Recommendations on the Transport of Dangerous Goods – Model Regulations.

In assessing the hazard posed by the goods referred to above, the volatility, toxicity and pollution category of the goods need to be considered.

The term "dangerous goods" includes any empty, uncleaned packing (such as tank containers, receptacles, intermediate bulk containers (IBC's), bulk packaging, portable tanks, or tank vehicles) that previously contained dangerous goods, unless the packing has been sufficiently cleaned of residue of the dangerous goods and purged of vapours to nullify any hazard or have been filled with a non-dangerous substance.

Department of Health - The regulator for Dangerous Goods of Class 7 Radioactive.

### EPA

Environment Protection Authority (Victoria).

### Handling

The operation of loading or unloading of a ship; transfer to, from, or within a terminal area or ship; or trans-shipment between ships or other modes of transport. This includes intermediate keeping i.e. The temporary storage of Dangerous Goods in the port area during their transport from the point of origin to their destination for the purpose of changing the modes or means of transport.

Note: This is an important term, which relates to the actual operations, which take place. It has been widely drawn so as to cover all of the many operations, which relate to Dangerous Goods in a port area.

### Hazard

Means any thing, activity, occurrence, or circumstance of any kind that has the potential to cause injury to persons, to damage property or pollute the environment by:

- An explosion, fire, harmful reaction or the evolution of flammable, corrosive or toxic vapours involving dangerous goods; or
- The escape, spillage, or leakage of any dangerous goods.

### **IMDG Code**

The International Maritime Dangerous Goods Code published by the International Maritime Organization (current edition).

### **IAEA Regulations**

IAEA Regulations for the Safe Transport of Radioactive Material (TS-R-1).

#### **Low Specific Activity (LSA) material**

Radioactive material which by its nature has a limited specific activity, or radioactive material for which limits of estimated activity apply.

- a. LSA-I;
- b. LSA-II; and
- c. LSA-III.

These groups are further defined and explained in the *UN Recommendations for the transport of Dangerous Goods – Model Regulations*.

### **Melbourne VTS**

Also known as the Port Operations Control Centre (POCC) is the communications centre for all shipping movements and emergency notifications. The contact points are:

- General: (03) 9644 9700
- Emergency: (03) 9644 9777 or VHF radio Channel 12.

### **Packing Group**

One of the three hazard groups to which dangerous goods (excluding Classes 1, 2, 6.2 and 7) are assigned in the IMDG Code, in decreasing order of hazard, by the Roman numerals 'I' (high danger), 'II' (medium danger) and 'III' (low danger).

Note: The UN Recommendations on the Transport of Dangerous Goods – Model Regulations provide criteria for the assessment of packing groups. Lists of those already assigned are given in the ADG Code and IMDG Code.

### **Port of Melbourne Operations (Port of Melbourne)**

The private operator of the Port of Melbourne commercial operations following the conclusion of the Port of Melbourne Lease Transaction in 2016.

### **Port of Melbourne DPAO**

A Port of Melbourne Duty Port Authorised Officer tasked with monitoring Hazardous Port Activities on Port of Melbourne controlled areas is carried out in accordance with the conditions of the issued authority.

### **Proper shipping name**

The name used to describe a dangerous good, as defined in the IMDG Code.

### **Port Safety Officer (PSO)**

Also known as Port Authorised Officer (PAO) is a representative of Ports Victoria tasked with the responsibility of issuing authorities and the monitoring of hazardous port activities on port land and in port waters to ensure compliance with port procedures.



## Risk

Means the likelihood of injury to persons, damage to property or pollution of the environment being caused by the hazard.

## Responsible Person

A person appointed by an employer or the Master of the ship and empowered to take all decisions relating to a specific task, having the necessary knowledge and experience for that purpose.

## Regulatory Authority

Victorian WorkSafe and Department of Health (Class 6.2 and 7) are the regulatory authorities that determine the conditions under which Dangerous Goods are handled and/or kept in operational areas within the port of Melbourne.

## Reasonably Practicable

To determine what is practicable, the factors that should be considered are:

- the severity of the hazard or risk
- the likelihood of serious injury or damage
- the state of knowledge about the hazard or risk
- information you know about the hazard or risk
- information provided to you about the hazard or risk
- ways to remove or mitigate the risk
- the availability and suitability of risk controls
- the cost of removing or mitigating the risk.

## Ports Victoria

Established on 1 July 2021, Ports Victoria is a statutory authority. Its statutory objects, powers and functions are carried out under the *Transport Integration Act 2010* (Vic) and are the combined objects, powers, and functions of the former Victorian Ports Corporation (Melbourne) and the Victorian Regional Channels Authority.

## WorkSafe

The Victorian WorkCover Authority trading as WorkSafe Victoria, Health and Safety Business Unit regulator for Hazardous Chemicals and Dangerous Goods (except class 6.2 and 7).

## 1.6. Referenced Documents

Referenced documents such as Acts, Industry Codes of Practice, ISO Standards and Australian Standards have been referred to throughout this document. The latest edition should always be followed to ensure that the latest safety developments are incorporated.

# 2. Risk Management Process

This is a process that assists ship's master's and berth operators in identifying hazards and implementing corrective measures to eliminate or reduce the risks associated with handling Dangerous Goods.

## 2.1. Hazard Identification

The entire process needs to be examined to identify any hazards associated with the particular type of cargo being handled, and the type of transfer operation being employed:

- A single hazard (explosive, flammability, toxicity)

- Multiple hazard (mixing of hazard classes)
- Cumulative hazard (fire, explosion, environmental impact).

Other hazards also need to be considered which may be external to the process. These hazards can include:

- Prevailing weather conditions
- Proximity of other Goods on board the ship and terminal
- Proximity of activities and facilities on board the vessel and terminal
- Hot Work.

Information for identifying hazards can be obtained from sources such as:

- IMDG Code
- Material Safety Data Sheets
- WorkSafe Guidelines and Standards
- Industry publications.

## 2.2. Risk Assessment

There are various methods of carrying out a risk assessment. The purpose of the risk assessment is to determine the consequence of:

- likely injury to people from the handling process
- likely damage to property from the handling process
- likely pollution to the environment
- The risks that need to be controlled
- The order in which the risks need to be controlled.

A generic assessment can be used to minimise duplication and to streamline the process. However, a responsible person should ensure that the risk assessment is:

- Valid for that handling process
- Reviewed and current.

### **Risk Management Reference Document:**

Australian Standard AS/NZS ISO 31000:2018 - Risk Management: Principles and Guidelines.

## 2.3. Training

Based on risk assessments and the complexity of the handling and storage of Dangerous Goods in port areas, port users should ensure that all staff involved in the handling and storage of Dangerous Goods in port areas are provided with a formal training program.

The training should aim to ensure that each person who may be involved with handling and storage of Dangerous Goods operations achieve the requisite knowledge and competencies required to undertake the operation safely. The staff must be provided with adequate supervision until they can demonstrate they are competent in handling the operation in a safe manner.

Responsible parties should select training courses that cover the theoretical aspects of handling and storage of Dangerous Goods including relevant guidelines and regulations for staff involved in these operations.

Refer AMSA – Marine Orders 41 (Carriage of Dangerous Goods) 2017.

## 2.4. Training Outcomes

Ship and shore staff undertaking handling and storage of Dangerous Goods operations should be:

- proficient in the handling process.
- have knowledge of the hazards that may arise from the process.
- conversant with and understand the information provided on the material safety data sheets for the product/s being handled.
- conversant with the requirements of the relevant guidelines and regulations.
- Be able to respond to any emergency and assist till emergency assistance arrives.

## 2.5. Inspections and Audits

All responsible parties involved in the handling, transport, and storage of Dangerous Goods operations should develop and implement a comprehensive inspection program. These inspections should be regularly undertaken and recorded. Regular inspections can identify corrective actions and potential failures in the processes before incidents occur.

A PSO/PAO may conduct random audits of DG's handled through the port.

# 3. Spill Containment

Any spill during the handling and storage of Dangerous Goods operation, must be contained on the site. The immediate action is to raise the alarm, stop all operations, report the spill incident to Emergency Services on 000 then Melbourne VTS on (03) 9644 9777 and the Environment Protection Authority (EPA) 1300 372 842, take corrective action to contain and or minimise the impact on people then environment and property.

Clean-up and response operations will depend on:

- The nature of the product spilt
- The quantity of product spilt
- The potential impact to the immediate area and the surrounding environment.

# 4. Impact of Spills

Measures to prevent or control the impact of a spill will require a risk assessment. The hierarchy of control will need to be employed to suit the containment and clean-up operations.

A spill may have an impact on:

- People in the immediate vicinity of the spill
- Infrastructure in the area of the spill
- Marine and land-based wildlife that come in contact with the spill
- Groundwater and soil.

## 5. Emergency Actions

Emergency actions dealing with Dangerous Goods incidents may include:

### 5.1. Emergency Procedures

Emergency procedures are required for handling all foreseeable emergencies during a Dangerous Goods operation. Emergency procedures may vary but should include as a minimum:

- Raising of an alarm
- Action by persons to ensure their own safety and the safety of those around them
- Action by persons to minimise the damage to people, property, and the environment
- Method of informing emergency services, Port of Melbourne, government agencies, adjacent properties, dangerous goods owners including charterers and their agents.

### 5.2. Emergency Plans

The purpose and scope of an emergency plan should be designed to manage and coordinate all aspects of the emergency. Emergency plans should include:

- Responsibilities of key personnel
- Circumstances and systems to activate the plan
- Outline teams and roles to handle various aspects of the emergency
- Additional resources such as emergency services, additional power.
- For any emergency involving fire, injury, rescue or hazardous spill emergency services and Melbourne VTS must be contacted on
  - Emergency Services - 000
  - Melbourne VTS: (03) 9644 9777 VHF Channel 12 (24 hours)

## 6. Advance Notification

Note key elements of the Port Management (*Port of Melbourne Safety and Property*) Regulations 2010 in Division 2 — Notice (specifically regulation 20) require that Ports Victoria receives notification of the carriage of dangerous goods at least 24 hours prior to arrival in the port either by vessel or road in the form of a suitably prepared manifest.

Note that Ports Victoria currently uses an electronic notification system (DG Hub). Dangerous goods notifications will only be accepted using DG Hub interface at the website [www.dghub.com.au](http://www.dghub.com.au) either as EDI files or by manual entry. This is a mandatory notification process which commenced in January 2012. All relevant guidelines, procedures, forms, and a web link to DG Hub are available from the Ports Victoria website.

<http://www.vicports.vic.gov.au>

Further information can be obtained by contacting the Ports Victoria Health and Safety Team.

### 6.1. Form of the notification

Advance notification must be provided to Ports Victoria at least 24 hours before a dangerous good is brought into the waters of a port area or onto the berth. This requirement shall apply to dangerous goods that are to be unloaded, loaded, in transit or being transhipped in the port. Such notification shall include the information set out in Clauses 6.2 below.

The notification must be in the form of a suitably prepared manifest or entered through the DG Hub web interface or via EDI.

#### NOTES:

The regulatory authority may also require advance notification.

A suitably completed standard EDIFACT dangerous cargo message satisfies these requirements.

### **6.2. Information to be provided in the notification:**

- Name and IMO number of vessel
- Estimated date and time of arrival (ETA) of ship, or delivery of goods to port area as appropriate
- Name of agent, contact name, telephone, and facsimile numbers
- If containerised, container identification number
- Number and type of packages
- Proper shipping name/correct technical name
- IMDG code classification and any subsidiary risk classification
- UN number (where applicable)
- Packing group (where applicable)
- Quantity
- The condition of the dangerous goods if any abnormal hazard is likely to arise
- Any known defect which may adversely affect the safety of the port area, the ship, or the environment
- In the case of Classes 1, 4.1, 5.2, 6.2 or 7, additional information as specified in Chapter 5.4 of the IMDG code.

## **7. Limitations**

There are limitations on the quantities of Dangerous Goods of Class 1 Explosives and Class 5.1 Oxidising substances - Packaging Group 1 that can be handled in or trans-shipped/transit through the port of Melbourne. Time limits are also specified in AS 3846 referenced in Part 13-Ports of the Dangerous Goods (Explosives) Regulations 2022.

Note: The limits for Class 1 Explosives are set by the Victoria WorkSafe Authority in the Dangerous Goods (Explosives) Regulations 2022 and AS 3846.

The Ports Victoria “Class 1 Dangerous Goods - Management Plan” provides guidance for the safe transfer and handling of Class 1 Dangerous Goods (explosives) on vessels intending to enter and within the port of Melbourne (port). A copy of this document is available on the Ports Victoria website.

<http://www.vicports.vic.gov.au>

Further information can be obtained by contacting the Ports Victoria Health and Safety Team

The limits for class 5.1 Oxidising Substances - Packaging Group 1 and Ammonium Nitrate (UN 1942, 2426 and 3375), ammonium-based fertilisers (UN2067), and calcium hypochlorite (UN 1748 and 2880) are as set by AS 3846.

Note: Ammonium Nitrate UN2067 greater than 45% is also covered by the security requirements of Dangerous Goods (HCDG) Regulations 2016.

These limitations are further clarified in section 9.4 of this guide.

## 8. Dangerous Goods of Class 1: Explosives

### 8.1. New Dangerous Goods (Explosives) Regulations 2022

WorkSafe Victoria has updated the legal requirements for the manufacture, storage, sale, import, transport and use of explosives, with the introduction of the Dangerous Goods (Explosives) Regulations 2011. The regulations were made by the Minister for WorkCover following a public consultation period.

The new regulations came into effect on 18 June 2022. The regulations are available at the following web address:

[http://www.austlii.edu.au/au/legis/vic/consol\\_reg/dgr2011416/](http://www.austlii.edu.au/au/legis/vic/consol_reg/dgr2011416/)

The regulations must be read in full however key amendments for operations in the port in Part 13 include:

“Requirements on the master of a vessel carrying explosives and the Port of Melbourne in relation to the loading and unloading of explosives to and from vessels, and the movement of vessels carrying explosives into Victorian ports”.

There is also a requirement imposed on the master of a vessel carrying explosives to provide Ports Victoria with advance notification before arriving at a port or harbour. If more than 25kg of explosives is being loaded onto or unloaded from a vessel at berth, the master of the vessel and Ports Victoria must comply with AS 3846 for the transfer and handling of explosives.

There is a duty on Ports Victoria and the vessel master not to allow a vessel carrying more than 25kg of explosives to enter a port unless it is moving to a berth that provides the separation distances from protected places as specified in AS 3846

Ports Victoria has developed the Class 1 Dangerous Goods Management Plan which is available from our website.

<http://www.vicports.vic.gov.au>

Further information can be obtained by contacting the VPCM Health and Safety Team

### 8.2. Scope of Section:

The handling and transport of dangerous goods of Class 1 Explosives in the port area must be in accordance with Ports Victoria’s Class 1 Dangerous Goods Management Plan and the Dangerous Goods (Explosives) Regulations 2022.

### 8.3. Section 4 of AS 3846 deals with:

- General requirements
- Requirements relating to the ship
- Compatibility and mixed storage
- Ordinary berths
- Deteriorated explosives
- Traffic management
- Forklift trucks
- Customers representative
- Electrical storms
- Emergency procedures.

The quantity restrictions of Class 1 Explosives applicable in the port of Melbourne are regulated by Ports Victoria’s Class 1 Dangerous Goods Management Plan.

## 9. Dangerous Goods of Class 2, 3, 4, 5, 8 or 9

### 9.1. Scope of section

Dangerous cargoes of class 2, 3, 4, 5, 6, 8 and 9 shall be handled in accordance with Section 5 of AS 3846 and the requirements of WorkSafe.

### 9.2. General Requirements for Berths

Delivery to and removal from a berth:

Unless kept in a restricted area (see Restricted area clause 9.7 in this guideline and clause 5.3 in AS 3846), quantities of materials listed in Table 2 exceeding 500 kg shall:

- be delivered to the berth within 12 hrs. of their being loaded onto a vessel; and
- removed from the berth within 12 hrs. of being unloaded from the vessel.

Note: Reference should also be made to clause 9.7 of this guideline and clause 5.3 of AS 3846 concerning restricted areas.

**Table 2 - Dangerous cargoes to be delivered to and removed from a berth within 12 hours**

DG Class	Packaging group	Description
2.1	-	Flammable gases
2.3	-	Toxic gases
3	PG 1	Flammable liquids
4.1	PG 1	Flammable solids and desensitised explosives
4.2	PG 1	Substances liable to spontaneous combustion
4.3	PG 1	Substances which, in contact with water, emit flammable gases
5.1	PG 1	Oxidising substances
6.1	PG 1	Toxic substances
8	PG 1	Corrosive substances

Note: "PG" indicates the "Packaging Group" as defined in the dangerous goods codes.

Ports Victoria requires that any port users who are involved in the handling of transitory Dangerous Goods comply with the requirements of Australian Standard 3846.

The Standard is designed to assist port users when involved in the handling and storage of all classes of Dangerous Goods in the port area to identify the hazards, assess the risk and adopt the necessary control measures required to eliminate or minimise the risk to as low as reasonably practicable.

Port users have a duty of care towards their own personnel to ensure that the handling and storage of Dangerous Goods are conducted safely.

Port users should ensure that a hazard identification and risk assessment is conducted for the entire transfer operation. Any hazards, risks or issues identified during the assessment should be resolved by a risk management process as discussed under Section 2 – Risk Management Process.

### 9.3. Other Dangerous Goods delivered to and removed from a berth within 5 days

Dangerous cargoes addressed by this section (with the exclusion of those in Table 2 and clauses 5.2.1, 5.2.3, 5.2.4 and 5.2.5 of AS 3846) shall be:

- a. removed from the berth within five days of unloading from the vessel, or
- b. not delivered onto the berth more than five days before loading onto a vessel.

Containers under fumigation (UN 3359) are exempt from this requirement.

### 9.4. Class 5.1 dangerous cargoes

Quantities of class 5.1 PG 1 dangerous cargoes exceeding 400 tonnes shall only be handled on a berth with the consent of the regulatory authority and in compliance with the Dangerous Goods (HCDG) Regulations 2016.

Additional requirements for Ammonium Nitrate (UN 1942, 2067, 2071), and (UN 3375, 3139) Ammonium Nitrate emulsions greater than 45% and Calcium Hypochlorite (UN 1748, 2880) at ordinary berths:

- Freight Containers, maximum aggregate quantity 400 Ts (import or export)
- Other packaging including loose IBCs 150 Ts (import/Export)
- Additional quantity not exceeding 1000 Ts may be conveyed on the ship as through cargo (remaining on board).
- Large quantities may be handled at a special berth and require a risk assessment.
- Bulk shipments of ammonium nitrate (UN 1942) shall have a special permission from the relevant authority and comply with the requirements of BC Code.
- Ammonium Nitrate based fertiliser in bulk on a ship shall comply with the requirements of AS 3846, The BC code and any requirements of the regulatory authority.

### 9.5. Class 5.2 material having a subsidiary risk

Organic peroxides of class 5.2 that have a class 1 (explosive) subsidiary risk shall be handled as given for explosives of division 1.1 (see Section 4 of AS 3846).

### 9.6. Dangerous Goods of Class 6.2

Any culture or preparation of pathogenic microorganisms (class 6.2 infectious substances) or other material capable of causing disease in human beings in respect of which regulations may be made under section 238(1)(q) of the Public Health and Wellbeing Act 2008.

### 9.7. Restricted area

Subject to a satisfactory risk assessment being carried out in conjunction with the requirements of Ports Victoria and WorkSafe, a designated restricted area for the keeping of Dangerous Goods on the berth may be allowed. Certain Dangerous Goods (refer to AS 3846 and Dangerous Goods (Explosives) Regulations 2022) may be kept in such an area for up to five port working days.

When evaluating the suitability of a restricted area, the following features shall be considered:

- The nature and quantities of Packaged Dangerous Goods kept in the area.
- The type of equipment to be used in handling the cargo.
- The provision of bunding, ignition source control, ventilation and separation of different classes of Dangerous Goods.
- The adequacy of the berth operator's technical, operational, organisational, and emergency safeguards.



- Surrounding land uses, population densities and proximity to other hazardous installations.
- The interaction of the above-mentioned factors.
- Proximity of other dangerous goods and their compatibility.

## 9.8. Segregation

Dangerous cargoes of class 2, 3, 4, 5, 6, 8 and 9 shall be segregated in accordance with section 5 of the AS 3846 and the requirements of the regulating authority.

## 9.9. Road and rail transport

Dangerous cargoes being transported into port areas, or dangerous cargoes in port areas that are loaded for transport by road or rail, must meet the requirements of the Dangerous Goods (Transport by Road or Rail) Regulations 2018.

# 10. Requirements for Dangerous Goods of Class 7

## 10.1. Scope of section

Dangerous cargoes of Class 7 Radiation shall be handled in accordance with Section 7 of AS 3846:2005 and the requirements of the regulatory authority. Shipping companies transporting Class 7 Dangerous Goods by sea within Victoria are required to comply with the requirements of the Radiation Act 2005 and the Radiation Regulations 2017. A radiation management licence issued by the competent authority (Victorian Department of Health) for the transport of radioactive material is required by the company responsible for the cargo. Please note, a licence issued for this purpose by another jurisdiction does not cover the transport within Victorian waters or ports.

*Radioactive material* is defined as any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in paras 402–407 of RPS C-2 Code of Conduct for the Safe Transport of Radioactive material (2019).

## 10.2. Transport of Class 7 dangerous goods in port areas

Packages or freight containers containing radioactive substances shall not be brought into the port area unless they conform to the International Atomic Energy Agency (IAEA) Regulations for the safe transport of radioactive material, 2018 Edition (Revised), which is incorporated in RPS C-2 Code of Conduct for the Safe Transport of Radioactive Material (2019), under the Australian Radiation Protection and Nuclear Safety Act 1998. Note: The IMDG Code also requires conformity with the IAEA Regulations for the Safe Transport of Radioactive Material, mentioned above.

- a. Trucks loaded with radioactive substances shall be scheduled so as to avoid waiting in the port area.
- b. Radioactive substances shall not be received into the port area more than 24 hours prior to the time of shipment.

## 10.3. Storage of Class 7 dangerous goods in onshore stores

All packages and freight containers containing fissile material (Fissile Classes II and III) carry a yellow 'radioactive' label ('yellow label').

The following requirements apply to the arrangement of Class 7 dangerous goods on shore:

- a. On shore, packages and freight containers shall be arranged and stacked in such a way as to eliminate the risk of criticality hazard.

- b. The requirements relating to the 50 Transport indices limit apply to all 'yellow label' consignments other than those containing only Low Specific Activity (LSA) material.
- c. A separation distance of 6m shall apply to all 'yellow label' consignments.
- d. The requirements for 'yellow label' packages and freight containers shall be applied regardless of whether the stacks are separated by walls or ceilings.

Note: the intervening space may be used for the storage of other goods except dangerous cargoes with which common loading or storage is prohibited, or goods that are incompatible due to the effects of radiation.

#### 10.4. Separation from places frequented by persons

Packages or freight containers bearing the yellow 'radioactive' label shall be separated from any place frequented by persons by at least the distances given in table 3, unless measurements taken using a suitable instrument clearly show that the radiation level at all points outside that place is less than 7.5 microsievert (uSv).

**Table 3 - Separation of yellow label packages or freight containers from places frequented by persons**

Sum of transport indices	Minimum separation distances (m)
<5	4
>5 <10	6
>10 <20	8
>20 <30	10
>30 <40	12
>40 <50	13
>50 <100	18
>100 <150	22
>150 <200	26

The separation distances in Table 3 apply regardless of whether walls or ceilings intervene between the storage area and the occupied space.

#### 10.5. Stowage on board a ship

On board ship, radioactive substances shall be stowed in accordance with the segregation requirements set out in the IMDG Code.

Note: Special conditions that allow for higher levels of radioactivity apply when freight containers packed with radioactive substances are shipped under 'Full Load' or 'Exclusive Use' provisions. Such shipping requires detailed supervision and control and is appropriate for consignments of materials such as uranium oxide and monazite sands but is not usually encountered in normal shipping operations.

Packages or freight containers that contain radioactive substances shall be stowed on the ship, or kept on a berth, in a manner that prevents any harmful effects to persons and possible interaction between packages.

For additional information section 7 of AS 3846 deals with:

- Exposure to Dangerous Cargoes of Class 7
- Transport of Dangerous Cargoes of Class 7

- Shore storage of Dangerous Cargoes of Class 7
- Ship's stowage of Dangerous Cargoes of Class 7
- Handling procedures
- Damage, spillage, and leakage procedures.

Note: Dangerous goods of Class 7: Radioactive materials are regulated by the Victorian Department of Health where a radiation management licence is required for transport within Victoria.

# Ports Victoria

*Head office:*

East 1E, 13-35 Mackey St  
North Geelong VIC 3215

GPO Box 1135  
GEELONG VIC 3220

Tel: +61 3 5225 3500