

# Bulk Dry Cargo Management Guideline

NOVEMBER 2016

## **Disclaimer**

This document contains important information intended as a guide for the requirements and recommendations for the safe handling and storage of bulk dry cargo in the Port of Melbourne by ship owners and Masters (or their agents), berth operators, stevedores, leaseholders and their employees, representatives and contractors. The guide incorporates and references minimum statutory requirements and industry standards that apply, or may apply, at the port.

Please note that compliance with statutory requirements and industry standards is the independent responsibility of any person accessing or undertaking any activity at the port (whether on port land or port waters). Therefore, readers must independently verify that the information contained within is current, accurate and complete.

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Information contained in this document is current at the time of print. Please note that changes may occur without notice.

## Revision history

Date	Version	Reason
1 <sup>st</sup> November 2016	1	New Document

## Approval history

Date	Name and title
1 <sup>st</sup> November 2016	Kieran McManus, Manager Health & Safety

### Document Location:

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

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## Forward

This document sets out Victorian Ports Corporation (Melbourne) (VPCM) requirements and recommendations for the safe handling and transport of Bulk Dry Cargoes in the Port of Melbourne.

It is designed to assist ship owners (or their agents), ship management companies, ship's masters and bulk dry terminal operators to provide the minimum acceptable safety requirements for facilities and operating procedures when handling such cargoes so as to ensure the protection of individuals, installations and the environment.

Ship owners, ship management companies, ship's masters and bulk dry terminal operators must also comply with other relevant existing guidelines in relation to the handling of dry bulk cargoes, including Port of Melbourne Operations (Port of Melbourne) 'Port Rule No1'.

The objective of VPCM's Bulk Dry Cargo Management Guideline is to ensure that all dry bulk handling operations at the Port of Melbourne are conducted in a manner that will appropriately manage safety, waste and pollution, promote efficient use of resources and manage environmental impacts.

Various parties including terminal hirers, terminal operators, stevedores, licensees, tenants, ship owners, shipping agents, Port of Melbourne and VPCM share responsibility for safety in the port and the local community to ensure that their operational activities are conducted in a secure and environmentally sustainable manner. These activities must be carried out in compliance with the:

- *The Port Management Act 1995*
- *Transport Legislation Amendment (Hoon Boating and Other Amendments) Act 2009*
- *Port Management (Port of Melbourne Safety and Property) Regulations 2010*
- *Occupational Health and Safety Act 2004*
- *Occupational Health and Safety Regulations 2007*

The *Port Management Act 1995* and the *Port Management (Port of Melbourne Safety and Property) Regulations 2010* make the transfer of dry cargo in bulk a "Hazardous Port Activity". This requires a mandatory application for authorisation and notification of proposal to carry out any bulk dry cargo transfer.

Key critical factors required when handling Bulk dry include:

- Legislative authorisation and notification requirements are all met
- Safe infrastructure, procedures and work systems are in place
- Competent and trained staff undertake the operations
- A risk assessment covering all facets of the transfer operation is current
- 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.

VPCM Health & Safety may inspect at random, any operation or function associated with bulk dry cargoes, to ensure that the operation is being performed in accordance with the above requirements.

## **1 Preliminary**

### **1.1 Purpose**

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This document sets out VPCM's requirements and recommendations for the safe handling and transport of bulk dry cargoes in the Port of Melbourne.

- It is designed to assist ship owners (or their agents), management companies, masters and bulk dry terminal operators to provide minimum acceptable safety requirements for facilities and operating procedures when handling such cargoes to ensure the protection of individuals, installations and the environment.
- A risk assessment process should be adopted when handling bulk dry cargoes. The assessment may identify other specific safety treatments not covered by this guideline. In such circumstances, additional risk treatments or measures must be considered.

### **1.2 Scope and Application**

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This guideline covers:

- All bulk dry cargo transfers as this activity is defined as a hazardous port activity under the Port Management Act 1995.

### **1.3 Requirements**

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VPCM requires that any ship, terminal operator, company or individual, involved in the handling, transport and storage of bulk dry cargo, complies with the requirements of Legislation, Port Rule No 1 and this guideline.

### **1.4 Definitions**

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#### **Agent**

A person or organisation representing the ship owner, cargo owner and cargo receiver.

#### **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 bulk dry cargoes.

#### **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 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 physical operation of moving materials. It is a widely drawn scope so as to cover all of the many operations, which relate to the transfer of bulk dry cargoes in a port area.

**Hazard**

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

- The escape, spillage, leakage or the loss of containment of any bulk dry cargo.

**NOTES:**

- In assessing the hazard posed by bulk dry cargoes, the volatility, toxicity and pollution category of the cargo must be considered.
- For the purpose of this guide, coal is not considered a dangerous cargo.

**Hazardous port activity**

Means any activity involving the following:

- The transfer of dry or liquid cargoes to and from vessels and wharves.
- Hot works, being thermal or oxygen cutting or heating or any other heat or spark producing activity

**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.

**Victorian Ports Corporation Melbourne (VPCM)**

Victorian Ports Corporation (Melbourne), the former Port of Melbourne Corporation (PoMC), following the conclusion of the Port of Melbourne Lease Transaction in 2016. **VPCM Health & Safety Department (VPCM H&S)**

**VPCM Duty Port Authorised Officer (DPAO)**

a VPCM officer tasked with issuing authorities and monitoring that Hazardous Port activities on port land and in port waters are carried out in accordance with the conditions of the issued authority..

**Australian Quarantine Inspection Services (AQIS)**

Federal Department managing quarantine controls at Australia's borders to minimise the risk of exotic pests and diseases entering the country.

**Risk**

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

**Reasonably Practicable**

- 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.

**Vessel**

Means any kind of floating craft that is used, or is capable of being used in navigation by water, however propelled or moved and includes:

- A ship, barge, lighter, floating restaurant or other floating vessel.
- An air-cushion vehicle or other similar craft that is used for navigation by water.
- An aircraft capable of manoeuvring on the water, for as long as the aircraft is on the water.

**Port Rule No 1 Manual**

a manual written by Port of Melbourne that outlines the operational requirements, roles and responsibilities of all parties involved in bulk dry operations at Port of Melbourne controlled bulk dry berths in the Port of Melbourne.

**Worksafe**

The Victorian WorkCover Authority's Worksafe Division.



## **1.5 Referenced Documents**

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Referenced documents such as Acts and Port of Melbourne's Port Rule No 1 have been referred to throughout this document. The latest editions should always be referenced to ensure that the latest safety developments and requirements are incorporated.

## **2 Risk Management Process**

This is a process that assists ship's Masters and berth operators in identifying hazards and implementing corrective treatments or measures to eliminate or reduce the risks associated with handling bulk dry cargoes.

### **2.1 Hazard Identification**

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The entire handling and transfer 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
- Multiple hazard
- Cumulative hazard
- 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
- Information for identifying hazards can be obtained from sources such as:
  - Worksafe Guidelines and Standards
  - Industry publications.

### **2.2 Risk Assessment**

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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 transfer process
- likely damage to property from the transfer 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 transfer process

- Reviewed and current.

### **3 Training & Inspection Programs**

#### **3.1 Training**

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Based on risk assessments and the complexity of the handling and storage of bulk dry cargo in port areas, port users should ensure that all staff involved in the handling and storage of bulk dry cargo 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 bulk dry cargo 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 bulk dry cargo including relevant, hazards, guidelines and regulations for staff involved in these operations.

#### **3.2 Training Outcomes**

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Ship and shore staff undertaking handling and storage of bulk dry cargo 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.

#### **3.3 Inspections**

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All responsible parties involved in the handling transport and storage of bulk dry cargo operations should develop and implement a comprehensive inspection program.

These inspections should be regularly undertaken and recorded. Regular inspections can identify faults and potential failures in the processes before incidents occur.

### **4 Spill Containment**

#### **4.1 Terminal Cleaning**

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All spillage arising from dry bulk cargo handling at the Terminal must be cleaned up and where necessary disposed of at an EPA licensed waste disposal facility and if applicable,

in accordance with the requirements of the Australian Quarantine Inspection Service (AQIS).

- All spilt cargo must be continually swept up to minimise cargo build up on the wharf and to ensure no offsite emission of particulates occurs during the loading or unloading of dry bulk cargo as well as at the end of the cargo transfer. A vacuum street sweeper must be available at the Terminal at all times to sweep up cargo as it is spilt. Also, the provision of alternative equipment for cleaning up cargo residues in areas difficult to access must also be available where necessary.
- Clean up following completion of cargo handling must be undertaken within two hours subject to reasonable delays caused by wet weather.
- Clean up includes manual sweeping and collection of cargo residues around wharf capping, bollards and other wharf features, and the removal of cargo residues from stormwater pits.
- Where a terminal provides a wash-down area, all cleaning of equipment must be carried out within the wash-down area.
- High pressure equipment must be used for any wash-down with water.
- Water must not be used to wash down the wharf surface or equipment outside wash-down areas or in contravention of any water restrictions imposed by VPCM or Port of Melbourne.
- At no time shall cargo residues be swept or disposed of into Port waters or a Terminal's stormwater drainage system.
- Any cleaning operations which themselves could generate windblown emissions of particulates must cease in the event of winds causing the residue to disperse past the Terminal boundary.

## **4.2 Vessel Cleaning**

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- All spillage on a vessel arising from dry bulk cargo handling must be cleaned up and disposed of in an appropriate manner before the vessel departs.
- All split cargo on a vessel must be continually swept up to minimise cargo build up on the vessel deck and to ensure that no offsite emission of particulates occurs during loading or unloading of dry bulk cargo as well as at the end of the cargo transfer.
- At no time shall cargo residue be swept or disposed of into Port waters.
- Water must not to be used to wash down a vessel's deck or equipment whilst the vessel is within Port waters.
- Ballast water intake must not overflow onto the vessel deck resulting in cargo residues being washed into Port waters.

## **5 Impact of Spills**

Measures to prevent or control the impact of a spill will require a risk assessment. The hierarchy of controls will need to be employed to suit the containment and clean-up operations. The hierarchy of control is a sequence of options which offers a number of

ways to approach the control of spill hazards. Working down the list to implement the best measure possible is the aim.

## **6 Hierarchy of control measures**

The hierarchy of controls should be used to mitigate hazards and risks as they are identified; the hierarchy of controls consists of the following six (6) elements:

Elimination

Substitution

Isolation

Engineering Controls

Administrative Controls

Personal Protective Equipment

Further information can be found at the following link [Controlling OHS hazards and risks](#)

## **7 Emergency Actions**

Emergency actions dealing with bulk dry cargo incidents may include:

### **7.1 Emergency Procedures**

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Emergency procedures are required for handling all foreseeable emergencies during a bulk dry cargo operation. Emergency procedures may vary but must 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
- A designated method of informing emergency services, Port of Melbourne, government agencies, adjacent properties, goods owners including charterers and their agents.

### **7.2 Emergency Plans**

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The purpose and scope of an emergency plan should be designed to manage and co-ordinate 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 spill emergency services ring **000** and then contact Melbourne VTS on **(03) 9644 9777**.

### 7.3 Ship's Master

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The master of a vessel whilst moored alongside a berth must ensure that, within his area of responsibility, bulk cargo handling activities are carried out in accordance with:

- Ships specific procedures
- Port Rule No 1
- Relevant sections of this guideline.

### 7.4 Cargo handling company

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The cargo handling company, within their area of responsibility, must ensure that bulk cargo handling operations are carried out in accordance with:

- Operators specific procedures
- Port Rule No 1
- Relevant sections of this document.

VPCM Port Safety Officers may in order to ensure that users are complying with this guideline and Port Rule No 1 carry out random inspections of operations at the Terminal.

## 8 Notification

### 8.1 Advance Notification

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#### Note

Key elements of the *Port Management (Port of Melbourne Safety and Property) Regulations 2010* in Division 1 and 2 requires that VPCM receive both an application for authorisation and notification of the carriage of bulk dry cargo at least 24 hours prior to arrival in the Port in the form of a properly prepared manifest.

Bulk dry goods notifications will only be accepted by manual entry through the new DG Hub interface at this website: [www.dghub.com.au](http://www.dghub.com.au)

All relevant guidelines, procedures, forms and a web link to DG Hub are available from the VPCM website at the [www.vicports.vic.gov.au](http://www.vicports.vic.gov.au)

Further information can be obtained by contacting the VPCM Health and Safety Team: [portsafety@vicports.vic.gov.au](mailto:portsafety@vicports.vic.gov.au)

### 8.2 Information to be provided in the notification:

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The following minimum information shall be provided in the advance notification:

- a Name and Lloyds/IMO number of ship.
- b Estimated date and time of arrival (ETA) of ship, or delivery of goods to port area, as appropriate.
- c Name of agent, contact name and telephone number.
- d Proper shipping name/correct technical name.

- e UN number (where applicable).
- f Quantity of cargoes to be unloaded/loaded and those to be left on board.

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The logo for Victorian Ports Melbourne features a white inverted triangle pointing downwards, positioned behind the text. The background of the lower-left corner of the page is a blue triangle containing a repeating pattern of white geometric shapes, including squares and triangles.