

Bulk Liquid Cargo Management Guideline

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Port of Melbourne
Corporation



Disclaimer

This document contains important information intended as a guide for the requirements and recommendations for the safe handling and storage of bulk liquid 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

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The most up-to-date document and central source for referenced forms and additional guidelines can be located on the Port of Melbourne website at <http://www.portofmelbourne.com>

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Forward

This document sets out the requirements and recommendations for the safe handling and transport of Bulk Liquid Cargoes in the Port of Melbourne.

It is designed to assist ship owners (or their agents), ship management companies, ship's masters and bulk liquid 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 liquid terminal operators must also comply with relevant sections of the Dangerous Goods Act 1985 (DG Act) and the Occupational Health and Safety Act 2004 (the Act). Particularly with reference to the prevention and reporting of incidents and the maintaining of a healthy and safe workplace.

PoMC objectives and functions as defined in the Port Management Act 1995 as amended are to plan and co-ordinate the development of port land and infrastructure and to make these assets available to port users in a way that is not only efficient, environmentally sound and sustainable but also safe and secure.

Various parties including tenants, ship owners, shipping agents and PoMC share responsibility for safety in the port. WorkSafe regulates the handling and transfer of dangerous cargoes in the port area. These activities must be carried out in compliance with the:

- Australian Dangerous Goods Code (ADG) 7th edition
- The Port Management Act 1995
- Transport Integration Act 2010
- Transport Legislation Amendment (Ports Integration) Act 2010
- 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
- Dangerous Goods Act 1985
- Dangerous Goods (Storage and Handling) Regulations 2000
- International Maritime Dangerous Goods Code 2008
- AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.
- Australian Standard 3846-2005: The Handling and Transport of Dangerous Cargoes in Port Areas
- The International Maritime Dangerous Goods Code (IMDG Code)
- International Safety Guide for Oil Tankers & Terminals (ISGOTT)
- MARPOL 73/78 (as amended).
- Ship to Ship transfer guide (Petroleum) Fourth Edition 2005

The Port Management Act 1995 and the Port Management (Port of Melbourne Safety and Property) Regulations 2010 now make the transfer of liquids in bulk a “Hazardous Port Activity”. This requires a mandatory application for authorisation and notification of proposal to carry out any bulk liquid transfer.

The Dangerous Goods (Storage and Handling) Regulations (2000) through its attached code of practice allow the use of specific guidelines and standards to achieve the requirements.

As such, for practical and operational purposes, the PoMC requires that any company or individual who involved in the handling of bulk liquid cargoes, comply with the requirements of Australian Standard 3846-2005: The Handling and Transport of Dangerous Cargoes in Port Areas (the standard) and PoMC Tanker Facility Operations Manual (TFOM).

Where the requirements of the standard and TFOM conflict with the above Acts and Regulations, the Acts and Regulations shall apply.

PoMC, tenants, terminal operators, stevedores, ship owners, ship masters and shipping agents all share responsibility for safety in the port. All share a responsibility to port users and the local community to ensure that their operational activities are conducted in secure and environmentally sustainable manner.

Key critical factors required when handling Bulk liquids include:

- Legislative authorisation and notification requirements are all met
- Compliant separation and storage requirements exist at all times
- 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
- 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.

PoMC Health & Safety is staffed by officers who will inspect at random, any operation or function associated with bulk liquid cargoes to ensure that the operation is being performed in accordance with the above requirements

1 Preliminary

1.1 Purpose

This document sets out the requirements and recommendations for the safe handling and transport of bulk liquid cargoes in the Port of Melbourne.

- It is designed to assist ship owners (or their agents), management companies, masters and bulk liquid 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 either dangerous or non hazardous bulk liquid cargo. 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

This guideline covers:

- Bulk liquid dangerous cargoes, hazardous substances and harmful materials including environmentally hazardous substances (marine pollutants) and wastes, covered by the International Maritime Dangerous Goods Code (IMDG Code).
- Non hazardous bulk liquid cargoes as they represent a risk to the environment, and operation of the port.

1.3 Requirements

PoMC require that any ship, terminal operator, company or individual, involved in the handling, transport and storage of bulk liquid dangerous cargo, complies with the requirements of Legislation, the standard and TFOM.

Non hazardous bulk liquid terminal operators are required to comply with the requirements of Legislation, the relevant sections of the standard, TFOM and this guideline.

Certain sections of the standard may refer to other State, National and International codes and regulations for further guidance. Where the requirements of the standard, or PoMC tanker facility operations manual or this guideline are in conflict with Federal or State Dangerous Goods Acts and Regulations, the Acts and Regulations shall apply.

1.4 Definitions

Agent

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

AS3846

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

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 cargoes

Any of the following cargoes in bulk, and within the scope of the following:

- Oils, covered by Annex I of MARPOL 73/78.
- Gases, covered by the Codes for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk.
- Noxious liquid substances or chemicals, including wastes, covered by the Codes for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk and Annex II of MARPOL 73/78.
- Dangerous goods, hazardous and harmful substances, materials and articles including environmentally hazardous substances (marine pollutants) and wastes, covered by the International Maritime Dangerous Goods Code (IMDG Code).

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

NOTES:

In assessing the hazard posed by the cargoes referred to above, 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.

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 liquid cargoes 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 including:

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

IMDG Code

The International Maritime Dangerous Goods Code, published by the International Maritime Organization.

MARPOL

Marpol 73/78 is the International Convention for the Prevention of Pollution from Ships,

Port of Melbourne Corporation (PoMC)

Is a responsible body for managing the port and to provide that Port operations are conducted in a safe and environmentally sustainable manner.

Packing Group

The division of dangerous goods, other than Classes 1, 2, 5.2, 6.2 & 7, into three hazard groups designated in decreasing order of hazard, by the Roman numerals 'I' (high danger), 'II' (medium danger) and 'III' (low danger).

PoMC Health & Safety Department (PoMC H&S)

The group responsible for monitoring and auditing the handling of bulk liquid cargoes within the Port of Melbourne.

Port Safety Officer

A representative of PoMC tasked with the responsibility to ensure compliance with port procedures.

Proper shipping name

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

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.

Regulatory authority

Worksafe is the regulatory authority that determines the conditions under which Dangerous Cargoes are handled and/or kept in operational areas within the Port of Melbourne.

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.

Ship

Any seagoing or non seagoing water craft, including those used on inland waters, used for the transport of dangerous cargoes

TFOM

Tanker Facility Operations Manual – a manual written by PoMC health and safety outlining the operational requirements, roles and responsibilities of all parties involved in bulk liquid operations at PoMC controlled bulk liquid berths in the port of Melbourne

Worksafe

The Victorian Workcover Authority's Worksafe Division.

1.5 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 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 liquid cargoes.

2.1 Hazard Identification

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 (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 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.

Risk Management Reference Document:

Australian Standard AS/NZS ISO 31000:2009 - Risk Management:
Principles and Guidelines.

3 Training & Inspection Programs

3.1 Training

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

3.2 Training Outcomes

Ship and shore staff undertaking handling and storage of bulk liquid 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

All responsible parties involved in the handling transport and storage of bulk liquid 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

Any spill during the handling and storage of a bulk liquid cargo operation, must be contained on the site. The immediate action is to stop all operations, report the spill incident to Emergency Services on **000** then **Melbourne VTS** on **(03) 9644 9777**, take corrective action to contain and or minimise the impact on people then environment and property.

Response and clean-up operations thereafter will depend on:

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

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 offer you 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

Eliminate the hazard

- if possible, remove the cause or source of the noise, by eliminating the machine, task or work process.
- If this is not practical, then:

Substitute the hazard with a lesser risk

- use a less-noisy machine for the task, or introduce a less-noisy work process.
- If this is not practical, then:

Isolate the hazard

- separate the process or equipment from the workers by relocation or by changing the hours of operation so that the task is carried out when the majority of workers are not exposed
- If this is not practical, then:

Use engineering controls

- introduce enclosures and barriers around the noise source or between the source and the workers to modify the sound pathways and dampen the source of the noise
- improve maintenance procedures to ensure the effectiveness of sound damping and muffling equipment.
- If this is not practical, then:

Use administrative controls

- use strategies such as rest breaks, pause exercises and job rotation
- establish hearing protection zones and use signage to warn workers of noise risks.
- If this is not practical, then:

Use personal protective equipment

- provide protective equipment appropriate to the risk
- provide training information and supervision to ensure that personal hearing protection is fitted, used and maintained appropriately.

Spill Impacts

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

Ground water and soil.

7 Emergency Actions

Emergency actions dealing with bulk liquid cargo incidents may include:

7.1 Emergency Procedures

Emergency procedures are required for handling all foreseeable emergencies during a bulk liquid 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 manager, government agencies, adjacent properties, dangerous goods owners including charterers and their agents.

7.2 Emergency Plans

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 hazardous spill emergency services and Melbourne VTS must be contacted on [\(03\) 9644 9777](tel:0396449777).

8 Actions and Responsibilities

The following actions are required to be undertaken for ship/shore transfers of bulk liquids and gaseous dangerous cargoes.

8.1 Ships Agent

A “Dangerous Goods & Bunker Notification Form 1” with a “Tanker Manifest Form 3” must be forwarded to Health & Safety at least 24 hours prior to the dangerous cargo entering the port this is accepted as both application for authority and notification of the intention to carry out the transfer.

Health & Safety will, confirm receipt of the Forms 1 & 3*.

The agent must ensure that the tanker, prior to berthing is made aware by fax or other means of the PoMC's tanker safety requirements (refer section 9.3 page 18 this document).

The forms (Forms 1 & 3) are to be forwarded to:

PoMC Health & Safety at least 24 hours before the arrival of a vessel at the port

By either:

- Courier: Level 4, 530 Collins Street Melbourne
- E-mail: safety@portofmelbourne.com.

Where a tanker is required to be immobilised alongside a tanker berth, the agent is required to complete an application (Form 4) prior to immobilisation.

The completed form must be forwarded to:

- Port Superintendent - Melbourne VTS
- Facsimile [03] 9644-9710.

8.2 Ship's Master

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

- Australian Standard AS 3846
- ISGOTT
- Relevant sections of this guideline.

8.3 Cargo handling company

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

- Australian Standard AS 3846
- ISGOTT
- The PoMC tanker facility operation manual
- Relevant sections of this document.

Representatives from the ship and the cargo handling company must complete a ship/shore safety and operational agreement prior to the start of any ship/shore transfer of bulk liquid dangerous cargoes. A PoMC Port Safety Officer will complete or audit the completion of the ship/shore safety and operational agreement.

9 Notification

9.1 Advance Notification

Note

Key elements of the Port Management (Port of Melbourne Safety and Property) Regulations 2010 in Division 1 and 2 requires that PoMC receive both an application for authorisation and notification of the carriage of bulk liquid cargo at least 24 hours prior to arrival in the Port in the form of a properly prepared manifest using the PoMC "Form 1" and "Form 3".

The forms (Forms 1 & 3) are accepted as both application for authority and notification of the intention to carry out the transfer and are to be forwarded to:

PoMC Health & Safety at least 24 hours before the arrival of a vessel at the port

By either:

- Courier: Level 4, 530 Collins Street Melbourne
- E-mail: safety@portofmelbourne.com.

9.2 Information to be provided in the notification:

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 IMDG Code classification and any subsidiary risk, with Packing Group or MARPOL NLS category and flash point, as appropriate.
- g Quantity of cargoes to be unloaded/loaded and those to be left on board.
- h For solid bulk dangerous cargoes, a certificate of manufacture.
- i For liquids and liquefied gases, whether the ship holds the following valid certificates, as appropriate:
 - i International Oil Pollution Prevention Certificate.
 - ii International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.
 - iii Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk.
 - iv International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk.
 - v Certificate of Fitness (Gas Carrier Code)
 - vi International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk.
 - vii Cargo inhibitor certificate (where applicable).
- j The condition of the dangerous cargo and any known defect in the cargo containment, handling system, equipment or instrumentation that is related to the bulk cargo and that could lead to an abnormal hazard.
- k Any known defect that could adversely affect the safety of the port area, the ship or the environment.

10 Special categories

10.1 Openings in Cargo Tanks

Whilst a tanker is alongside a tanker berth, and particularly during bulk liquid cargo handling, or while ballasting into ex-bulk dangerous cargo tanks, all cargo tank lids must be firmly closed and secured. Exceptions to the above must be by agreement with the PoMC Duty Port Safety Officer.

10.2 Tank Washing/Gas Freeing

Washing and/or gas freeing of ex-toxic, carcinogenic or highly odorous cargo tanks is not permitted at any tanker berth in the Port of Melbourne. Washing and/or gas freeing of the above cargo tanks [if required] must take place in Port Phillip Bay at the outer anchorage south east of Point Cook with the washing's remaining on board.

Where tank washing and/or gas freeing is permitted alongside, the operation must be carried out in accordance with the standard, ISGOTT, the particular tanker's own operating manual and any other restrictions applied by PoMC, concurrent tank washing and or gas freeing are not permitted with cargo operations.

Concurrent crude oil washing and cargo discharge operations are permitted.

"Tank Washing & Gas free Guide" (available from our website)

10.3 Handling of Odorous or Toxic Cargoes at No.1 Maribyrnong

Specific precautions and procedures are required for the handling of Odorous or Toxic Cargoes at No.1 Maribyrnong Berth. The cargoes and procedures are shown in:

"Procedures for the handling of Odorous or Toxic Cargoes at No.1 Maribyrnong" (available from our website)

10.4 Marpol Pre Washes

Pre Washing of cargo tanks under Marpol requirements is considered a separate operation to washing / gas freeing. All Marpol pre washes should be carried out in accordance with Marpol guidelines and any pre conditions set by PoMC.

10.5 Cargo Tank Venting

If approved by PoMC, cargo tank venting must be performed using the tankers approved venting system. Other forms of venting must be agreed with PoMC and the cargo handling company. Where certain cargo discharges require a vapour return system, the master of the tanker must ensure that vapour that is returning to the tanker is not released into the atmosphere.

10.6 Entry into Tanks

If man entry is required into a cargo tank or other confined space that has previously held a bulk liquid cargo or where the condition of the atmosphere is not known, the following procedures must apply when the tanker is alongside.

Where a member of the ship's crew is required to enter a cargo tank or confined space, the confined space entry procedure must be in accordance with Australian Standard 3846:2005, and the tankers own operating manual. This documentation should be available for viewing in the cargo control room before and during tank entry.

If a person other than a member of the ship's crew is required to enter a cargo tank or confined space, an independent chemist approved by PoMC must issue a gas free certificate for that particular cargo tank or confined space, approving it "Safe for Man Entry". All persons who will be involved in the entry of the space must be appropriately trained and the entry must be in accordance with the Victorian Occupational Health and Safety Regulations 2007 Part 3.4 – Confined Spaces and the associated compliance code.

PoMC must be informed prior to any entry into tanks or confined spaces on board the vessel.

10.7 Hot Work

Hot work cannot take place on board a tanker whilst it is alongside the berth or anywhere within the boundary of the berth without first seeking permission from PoMC. A permit to conduct "Hot Work" may be granted by the Duty Health and Safety Officer after inspection of the worksite. The Duty Port Safety Officer can be contacted on:

- Telephone: 9683 1594 or
- E-mail: safety@portofmelbourne.com

(A gas free certificate may be required)

10.8 Berthing of Tankers at Ordinary Berths

Tankers berthing at ordinary berths in the Port of Melbourne must comply with PoMC document:

HS033-PG-F-Chemist Declaration or Minimum requirements for tankers at non-tanker berths (available from our web site)

or

Must have flammable cargoes onboard equal to or less than 50% of the total cargo tank capacity of the vessel and seek permission from the Health & Safety Group (minimum of 24Hrs notice) by email to safety@portofmelbourne.com.

In this case the ships agent must arrange for additional resources that must consist of as a minimum:

- A fire fighting vehicle/pump with two portable monitors capable of delivering a foam solution to cover the manifold and deck areas of the vessel.
- Sufficient foam concentrate for 30 minutes application at a rate of 6%; and
- Trained personnel (MFB or equivalent).

10.9 Ship to Ship Transfers

Ship to ship transfers must be undertaken in accordance with relevant international, national, state and local legislation, regulation and guidelines, and may only occur with permission of the Harbour Master.

Guidance is available from:

- MARPOL Annex I- Regulations for the Prevention of Pollution by Oil Chapter 8 - Prevention of Pollution during Transfer of Oil Cargo Between Oil Tankers at Sea
- Ship to Ship transfer guide (Petroleum) Fourth Edition 2005.

10.10 Bunkering Operations

Bunker transfer operations are cargo and ship dependant and must be clarified on a visit to visit basis by contacting the Duty Port Safety Officer on:

- Telephone 9683 1594
- E-mail: safety@portofmelbourne.com.

10.11 Ballasting Operations

Discharge of ballast water from segregated/dedicated ballast tanks into port waters is permitted where there is written authorisation from:

- Australian Quarantine Inspection Services (AQIS) for International ballast water (Ballast Water from International ports).
- EPA Victoria for Domestic ballast water (Ballast Water from Australian Ports).

Discharge of ballast water from cargo tanks is not permitted except where: there is written authorisation from:

- Australian Quarantine Inspection Services (AQIS) for International ballast water (Ballast Water from International ports).
- EPA Victoria for Domestic ballast water (Ballast Water from Australian Ports).

And

- The ballast water is discharged ashore for treatment.
- or
- The ballast water has been tested by an independent and qualified person and is found to be clear of residual cargo or other contaminants to the satisfaction of the PoMC.

10.12 Entry of vehicles into tanker berths

Specific procedures for vehicle entry are cargo and ship dependant and must be clarified at the Berth on each occasion.

10.13 Access to tanker by barge(s)

Guidelines for barge to ship operations are set out in the tanker facility operations manual.

Permission must first be obtained from the Duty Port Safety Officer before barges or other waterborne craft come alongside a tanker. The Duty Port Safety Officer can be contacted on:

- Telephone 9683 1594
- E-mail: safety@portofmelbourne.com

10.14 Tanker Safety Items

The following operational requirements must be conveyed to the tanker, if the tanker receives prior notice of these requirements, it will greatly assist in minimising delays in the start of cargo handling. Items including but are not limited to the following:

- All scuppers must be securely plugged.
- All blank flanges (especially manifold flanges) must be secured with a tight bolt in every hole.
- All manifolds must be drained and free of product prior to arrival.
- All cargo lines must be drained and free of product when not in use.
- All spill trays must be kept drained at all times.
- No open tank lids permitted, even if tanks are clean and gas free without permission from the Duty Port Safety Officer.
- The vessel must remain securely moored at all times.
- Outboard lifeboat must be lowered to embarkation level as a means of emergency escape (if appropriate).
- Bunkering by barge and cargo handling safety and operations (Hazardous Products) are not permitted concurrently without permission from the Duty Port Safety Officer
- Copy of crew list, ship's fire plan and cargo stowage plan are to be placed at the berth gatehouse upon arrival.
- Flag B is to be flown from the mast during the hours of daylight.
- An all round Red light must be shown on the mast at night.
- An international ship/shore safety checklist, must be completed PRIOR to the commencement of cargo operations.
- Emergency Towing (fire) wires must be in place on the outboard side of the vessel forward and aft.
- No tank washing or gas freeing alongside or while handling cargo without permission from PoMC H&S or Duty Health and Safety Officer.
- No tank entry is permitted unless the PoMC have been advised. Additionally, if personnel other than the ship's crew are required to enter a tank or confined space, a "Gas Free" certificate issued by a PoMC registered chemist is required.
- MARPOL pre-washing can only be done whilst the tank is gas tight.
- High level alarms (if fitted) both audible and visual must be fully operational at all times.
- All fire pumps must be fully operational and fire gear ready for immediate use.
- All safety equipment must be fully operational and ready for immediate use.
- The Tanker's "Inert Gas" system (where fitted) must be fully operational.

Guidance can be provided by the Duty Port Safety Officer on:

- Telephone 9683 1594
- E-mail: safety@portofmelbourne.com