

Bunker & (non-cargo) Liquid Transfer Management Guideline

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

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Date	Name and title
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1 Introduction

1.1 Application

The purpose of this Victorian Ports Corporation (Melbourne) (VPCM) document is to assist all parties involved with planning and operations of bunker or other (non-cargo) liquid transfers, to carry out their responsibilities for safe operation, environmental protection and regulatory compliance in the Port of Melbourne.

The liquids covered by this guideline include heavy fuel oil, diesel, lube oils, sewerage, grey water, oily waste, sludge and oily water.

The following operations are excluded from these requirements:

- Bulk liquid cargo which is covered in the separate document; “Bulk Liquid Cargo Guidelines”.
- Fresh water transfer.
- Drummed products, such as lube oil, that are lifted as a whole drum, and not pumped via a hose.
- Permanent fixed fuel stations utilising fuel dispensing bowsers.
- Ballast water transfer approved by AQIS and EPA.

Bunkering and liquid transfers are defined as a Hazardous Port Activity in the *Port Management Act 1995* and *Port Management (Port of Melbourne Safety and Property) Regulations 2010*.

Hazardous Port Activities are subject to the VPCM notification and authorisation process. Other Hazardous Port Activities also subject to the VPCM notification and authorisation process; include Hot Work and Bulk Liquid and Dry Bulk Transfers.

The important requirements of the Act and Regulations include:

- A request for authority must be made to VPCM.
- At least 24 hours’ notice must be given to VPCM.
- The person managing the bunkering or transfer operation must immediately notify VPCM of any incident including, but not limited to, the following:
 - An explosion, fire or harmful reaction involving a hazardous port activity
 - The escape, spillage or leakage of bulk cargo
 - The escape spillage or leakage of liquids.

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 the 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.

The Act and Regulations also give powers to VPCM Port Authorised Officers (PAOs) to issue a direction in relation to Hazardous Port Activities. These directions may include; stop the activity, move from the area or even to move out of the port.

Although bunker fuel oil has a flash point above 60° C, it is often stored and managed at temperatures close to, or even above its flash point. In addition, high flash point fuels may contain residual quantities of light components which slowly migrate into the tank vapour space after handling and raise the flammability. It must, therefore, never be assumed that the vapour spaces in, and the emissions from, bunker tanks will always be safe simply on account of a high flashpoint.

This guideline and the regulations cover a broad range of liquids because each may represent a significant environmental impact if allowed to enter port waters.

This guideline follows the recommendations given in the International Safety Guide for Oil Tankers and Terminals (ISGOTT), Fifth Edition.

It is also noted that Port of Melbourne Operations Pty Ltd (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.

2 Definitions

Term	Definition
Agent	A person or organisation responsible for the administrative details of a vessel, on behalf of the vessel owner or charterer during the vessels visit to the port.
Authority	The VPCM issued authority as mentioned in the regulations previously referred to as a Bunker Permit.
Berth	Any dock, pier, jetty, quay, wharf, marine terminal or similar structure (whether floating or not) at which a vessel may tie up. It includes any plant or premises, other than a vessel, used for purposes ancillary or incidental to the loading or unloading of cargoes.
Bunkering	Means the transfer of non-cargo liquids in bulk via hose to or from a vessel or a wharf in the port.
Flash Point	The flash point of a volatile material (Below 600c) is the lowest temperature at which it can vaporize to form an ignitable mixture in air.
Flexible Hose	Any flexible hose complying with AS/NZS 1869, BS 1435.2, BS EN 1765, AS 2117, or equivalent national standard.
Health & Safety	A department of VPCM charged with the responsibility to audit compliance with this manual.
IMDG	Is the International Maritime Dangerous Goods Code.
Inspector	A representative of VPCM tasked with the responsibility to monitor and inspect operations for compliance with these guidelines.
Liquid Transfer	Means the transfer of a liquid, via a hose or pipe, to or from a vessel or wharf
Master	A person, other than a pilot or watchperson, having charge of a vessel.
Melbourne VTS	The VPCM Vessel Traffic Services control centre which is the coordinating centre for vessel movements and for all emergency response in the Port of Melbourne.

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.
Responsible Person	A responsible person is defined by regulation as the Master or person in charge of the ship, the owner or operator or the agent, or a pilot who has duties on board the ship.
Ship	Any sea-going or non-sea-going water craft, including those used on inland waters, used for the transport of dangerous cargoes.
Shall	Indicates that a statement is mandatory
Should	Indicates a recommendation
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 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.
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: <ul style="list-style-type: none">• 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.

3 Risk Management Approach

The adoption of a risk management approach, when transferring many types of bunker fuels and other liquids is a requirement by law (Dangerous Goods Act 1985 & Dangerous Goods Storage and Handling Regulations 2000). Through its Safety and Environment Management Plan, VPCM requires all port users involved with bunker and liquid transfers to take a risk management approach which includes; hazard identification, risk assessment, risk control as well as emergency preparedness. Risk management processes are also defined in the standard: AS/NZS ISO 31000:2009 Risk Management Principles and Guidelines.

This approach will also assist ship's Masters and berth operators in identifying hazards and implementing corrective measures to eliminate or reduce the risks associated with handling bunker fuels and other liquid cargoes.

Port users should note that OHS legislation requires risks to health and safety to be eliminated, or reduced as far as reasonably practicable while in the risk management standard a risk may be 'treated' by sharing the responsibility for the risk. (eg insurance). VPCM's Occupational Health and Safety Policy objectives include integrating risk management principles when making decisions and determining treatments to a standard of "as low as reasonably practicable".

3.1 Hazard Identification

Before a bunker or other liquid transfer commences, the entire process needs to be examined by all parties involved in handling bunker fuels and other liquid cargoes to identify any hazards associated with the particular type of liquid being handled and the type of transfer operation being employed. The hazards may include the following:

- A single hazard (explosive, flammability, toxicity)
- Multiple hazards (mixing of hazard classes)
- Cumulative hazards (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 hazardous goods on board the ship and terminal
- Proximity of activities and facilities on board the vessel and terminal
- Proximity of any Hot Works and other ignition sources.

Information for identifying hazards can be obtained from sources including:

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

3.2 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.

The parties responsible for doing the risk assessment are those involved in the handling of bunker fuels and other liquid cargoes. A generic assessment can be used to minimise duplication and to streamline the process, however the risk assessment must be:

- Valid for that transfer process
- Reviewed and current.

Risk Management Reference Document:

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

4 Training & Inspection Programs

4.1 Training

Based on risk assessments and the complexity of the task, port users should ensure that all staff involved in the handling and storage of bunker fuels and other (non-cargo) liquids in port areas, are provided with a formal training program.

The training should aim to ensure that each person who may be involved with the operation achieves 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 bunker fuels and other (non-cargo) liquids including relevant guidelines and regulations for staff involved in these operations.

4.2 Training Outcomes

Ship and shore staff undertaking handling and storage of Bunker fuels and other (non-cargo) liquids 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
- Capable of responding to any emergency and assist till emergency assistance arrives.

4.3 Inspections

All responsible parties involved in the handling, transport and storage of Bunker fuels and other (non-cargo) liquids 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.

5 Spill Containment

Any spill during the handling and storage of bunker fuel or other liquids 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.

Clean-up operations thereafter 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.

6 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.

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
- Groundwater and soil.

7 Emergency Actions

7.1 Emergency Procedures

Emergency procedures are required for handling all foreseeable emergencies during a Bunker fuels and other (non-cargo) liquids operation. Emergency procedures may vary but should include as a minimum:

- Raising the 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.

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 the following:

- 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:

- **Emergency Services: telephone: 000**
- **Melbourne VTS: telephone: (03) 9644 9777 (24 hours)**
radio: VHF Channel 12 (24 hours)

8 Advance Notification

VPCM must be given notification of the intention to conduct a bunker or (non-cargo) liquid transfer at least 24 hours prior to commencement of the activity. (refer to Regulation 19 of the *Port Management (Port of Melbourne Safety and property) Regulations 2010*).

The notification is to be done using the "Form 1" and submitted by email to the Port Safety Officer Team email – portsafety@vicports.vic.gov.au A full and properly completed notification must be submitted.

All relevant guidelines, procedures and forms are available from the VPCM website. (<http://www.vicports.vic.gov.au>).

Further information can be obtained by contacting the VPCM Safety Team. (email: portsafety@vicports.vic.gov.au)

9 Roles and Responsibilities

9.1 Agents Responsibilities

- Notification by the Agent to VPCM of the intention to conduct bunker transfer operations is to be provided that details the quantity and type of product to be transferred using the prescribed form; "Form 1 Notification to Transport or Handle Dangerous Cargoes or Oils".
- The completed form must be e-mailed by the Agent to VPCM at least 24 hours prior to the vessel's arrival to portsafety@vicports.vic.gov.au.
- VPCM will acknowledge the notification with a transfer authority.
- The vessel's agent must provide to the vessel's master a copy of VPCM's transfer authority and notification requirements.
- The vessel's agent must notify the vessel's master of the requirement to contact the port inspector one hour prior to commencement of operations.
- The master of a vessel may directly notify VPCM of bunkering intentions and directly receive the authority.

9.2 Vessel's master

- It is the responsibility of the vessel's master to comply with these VPCM guidelines when undertaking bunker or liquid transfer operations within the Port of Melbourne.
- The vessel's master must not commence a bunker or (non-cargo) liquid transfer operation without a confirmed authority to proceed from VPCM
- For transfers by road, the Master of the vessel is responsible for notifying the MVTTS on telephone number +613 9644 9789 prior to the commencement of the transfer operation.
- For transfers by bunker vessel, the Master of the bunker vessel is responsible for notifying MVTTS on VHF Channel 12, in accordance with HMD 3.27.1.
- The transfer may commence immediately the notification to Melbourne VTS has been given
- The vessel's master must comply at all times with any directions given by VPCM, or Port of Melbourne DPAO, when engaged in a bunker or (non-cargo) liquid transfer operation.

The vessel's master involved in a bunker or (non-cargo) liquid transfer operation shall ensure that the transfer will only take place if:

- A bunkering or transfer checklist has been completed truthfully and in full.
- The checklist as a minimum should ensure the following points have been complied with:
 - ❖ The scuppers/wash ports are firmly plugged/sealed
 - ❖ Bunker connections not in use are well blanked
 - ❖ The bunker connection has been provided with a good seal
 - ❖ There is a well-tightened bolt in every bolthole at the bunker pipe connection flange
 - ❖ There is a sufficiently large save all under the bunker pipe connection
 - ❖ The bunker hoses are well supported and are of sufficient length to allow for movement of the vessel.
 - ❖ There is effective communication established and maintained by the vessel's engineering section, so as to enable immediate shutdown if required
 - ❖ Any cargo handling in progress will not hinder bunker transfer operations.

9.3 Once bunkering has commenced:

- No smoking, naked flame or hot work is permitted within 25 metres of any bunker flange and or vent pipes associated with the bunker transfer operation.
- A constant visual watch is maintained throughout the entire transfer operation.
- Sufficient absorbent material is available on site to deal with any accidental spillage.
- If a spillage does occur, all efforts must be made to stop or limit the spillage and Melbourne VTS must be immediately notified.
- If the inspector notices that any of the requirements laid down in these paragraphs cannot be fulfilled prior to or during bunker transfer then the operations must cease immediately. Bunker transfer can only start or restart when the bunker inspector is satisfied that all requirements are being met.

VPCM and/or Port of Melbourne reserves the right to inspect all facets of the bunker transfer before commencement, and or during the operations.

10 Requirements for Bunker Barges

10.1 Before bunker transfer has commenced

The master of a bunker barge shall not begin a transfer unless VPCM's authority to proceed is available and:

- The bunker barge is securely moored.
- A bunker transfer safety checklist has been completed truthfully and in full.
- There is effective communication established and maintained by the barge, so as to enable immediate shutdown if required.
- That hoses are in good condition and in test in accordance with the appropriate Australian standard, and the test certificate is available on request.
- The hoses are well supported and are of sufficient length to allow for movement of the vessel.

- The bunker connection has been provided with a good seal.
- The bunker pipe and hose connection flanges are fully bolted and tight. Every bolt hole of each of every flange must be fitted with a well-tightened bolt.

For Bulk Liquid Berths (Holden & No.1 Maribyrrnong), the bunker barge will be instructed by the shipping agent on the time of bunkering. This will be done in consultation with the shore officers at the pre arrival and/or arrival meetings. The Agent and shore officer will need to comply with the requirements of Section 11 of this document: *Requirements for Vessel/Bunker Barge Operations At Tanker Berths*.

This is an important safety requirement as cargo operations may need to be modified or stopped to protect the safety of the barge, vessel, personnel and infrastructure.

NOTE: A bunker barge may not be alongside another vessel in Swanson Dock where any vessel may be required to pass the vessel in order to either berth or depart from any other berth in Swanson Dock (refer PIN – Notice No. 05 / 2016).

10.2 After bunker transfer has commenced

- A constant visual watch is maintained throughout the entire transfer operation.
- Sufficient absorbent material is available on site to deal with any accidental spillage.
- If a spillage does occur, all efforts must be made to stop or limit the spillage and Melbourne VTS must be immediately notified.
- If the inspector notices that any of the requirements laid down in these paragraphs cannot be fulfilled prior to or during bunker transfer then the operations must cease immediately. Bunker transfer can only start or restart when the bunker inspector is satisfied that all requirements are being met.

VPCM and/or Port of Melbourne reserves the right to inspect all facets of the bunkering before commencement, and or during the operations.

11 Requirements for Vessel/Bunker Barge Operations At Tanker Berths

Bunkering & Liquid Transfer are hazardous port activities, a barge may not approach or come alongside a tanker in the Port of Melbourne unless the agent has notified the barge in consultation with the shore officer at the pre arrival or arrival meeting. A Bunker Authority must be requested 24 hrs prior to undertaking a bunker activity using Form 1.

12 Requirements for Road Tankers

12.1 Before bunkering has commenced

The master of a vessel and operator of the road tanker shall not begin a transfer unless they have contacted MVTS and:

- Hoses are in good condition and tested in accordance with the appropriate Australian standards and the hose test certificate is available on request.
- A bunker transfer checklist has been completed truthfully and in full.
- A temporary bund is required on the wharf to enclose one or more road vehicles and ancillary equipment during the entire transfer if filling the road tanker above 90% of tank capacity.
- An appropriate drip tray is in place under hose connection points where required.
- All camlock fittings are locked, closed and secured.
- A responsible person or the driver remains adjacent to the Vehicle at all times during bunkering operations.
- Effective communications have be established and maintained between vessel and driver, or responsible person to enable immediate shutdown if required.
- Any length of hose spanning the water must be in a continuous length containing no joins or connections.

12.2 Once bunkering has commenced

- A constant visual watch is maintained throughout the entire transfer operation.
- Sufficient absorbent material is available on site to deal with any accidental spillage.
- If a spillage does occur, all efforts must be made to stop or limit the spillage and Melbourne VTS must be immediately notified.
- If the bunkering inspector notices that any of the requirements laid down in these paragraphs cannot be fulfilled during bunkering then the operations must cease immediately. Bunkering can only start and continue when the bunkering inspector is satisfied that all requirements are being met.

It is compulsory to use radios as the communication medium at any berth where the line of sight between the vessel and bunker vehicle is obstructed and or the distance is greater than 75 metres.

VPCM and Port of Melbourne reserves the right to inspect all facets of the bunker transfer before commencement, and or during the operations.

13 Requirements for Vessel/Road Vehicle Liquid Transfer Operations

These requirements are for operations which involve liquid transfer operations directly between vessel & road vehicles that do not fall under the definition of *Bunker Transfer*.

Vessel/road vehicle transfer of liquids which are defined in the IMDG code as Hazardous Class 3 and or Hazardous Class 6 or sub class 6 are NOT permitted within the Port of Melbourne.

13.1 Before bunker transfer has commenced

The master of a vessel and operator of a road tanker shall not begin a transfer unless they have a VPCM authority to proceed and:

- The site has been inspected to determine suitability of the location for the road vehicle(s) during transfer operations.
- A temporary bund is required on the wharf to enclose one or more road vehicles and ancillary equipment during the entire transfer if filling the road tanker above 90% of tank capacity.
- An appropriate drip tray is in place under hose connection points where required.

- Where required a checklist has been completed truthfully and in full.
- All personnel involved in operations have sighted and understood the agreed contingency plan.
- Effective communications have been established and maintained between vessel and driver, or responsible person to enable immediate shutdown if required.
- A responsible person from the vessel remains adjacent to the vessel's load/discharge point at all times during transfer operations.
- The vessel's connection has been provided with a good seal & there is a well-tightened bolt in every bolt hole in the pipe connection flange.
- The vessel's scuppers and wash ports are firmly closed and sealed.
- The transfer hoses are in good condition and in test in accordance with appropriate Australian standards, and the test certificate is available on request.
- All Camlock fittings are locked, closed and secured.
- A responsible person or the driver remains adjacent to the Vehicle at all times during transfer operations.
- An appropriate drip tray is in place under hose connection points where required.
- Any length of hose spanning the water must be in a continuous length containing no joins or connections.
- A suitable contingency plan has been put in place to ensure that a spill of product or other incident can be controlled.

13.2 Once bunkering has commenced

- A constant visual watch is maintained throughout the entire transfer operation.
- Sufficient absorbent material is available on site to deal with any accidental spillage.
- If a spillage does occur all efforts must be made to stop or limit the spillage and the port authority must be immediately notified.
- If the bunkering inspector notices that any of the requirements laid down in these paragraphs cannot be fulfilled during bunkering then the operations must cease immediately.

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- Bunkering can only start and continue when the bunkering inspector is satisfied that all requirements are being met.

It is compulsory to use radios as the communication medium at any berth where the line of sight between the vessel and road vehicle is obstructed and or the distance is greater than 75 metres.

VPCM and Port of Melbourne reserves the right to inspect all facets of the liquid transfer before commencement as well as during the operations.

14 Important Contact Numbers

Police, Fire, Ambulance	000
Melbourne VTS Emergency	96449777 / VHF 12
Melbourne VTS Notification	96449789 / VHF 12
VPCM Port Authorised Officer	9644 9744 portsafety@vicports.vic.gov.au
Port Security Control Room	9681 8044
Port of Melbourne Port Authorised Officer	9683 1594

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The logo for Victorian Ports Melbourne, featuring a white downward-pointing triangle on a blue background with a repeating geometric pattern of white triangles.