



CalMac Ferries Ltd Harbour Operations

Commercial Bunkering Procedures

1. Introduction

This document covers the purpose, definitions, use, accountability and monitoring of bunkering operations within harbours operated by CalMac Ferries Limited (CFL). Harbours referred to in this document as Operated Harbours are Caledonian Maritime Assets Limited (CMAL) sites. As Harbour Operator, CFL are committed to ensuring the bunkering procedures are adhered to by all parties.

These procedures have been adopted to promote safe practice and will be subject to periodic review to ensure that it reflects best current practice and responds to changes in industry standards.

These procedures apply to all commercial bunkering operations* including commercial and fishing vessels less than 50gt, taking place at ports, terminals or harbours within the limits of CFL operations.

*The bunkering procedures herein do not apply to CalMac Ferries Ltd and Argyll Ferries Ltd, who have an approved checklist and monitoring system that comply with the requirements of this document.

Bunkering will be from tanker, barge, pipeline, road tanker/lorry or fuel bowser as appropriate and vessels must be alongside during this process.

Bunkering is taken to mean the transfer of liquid hydrocarbons, intended for the main propulsion and/or operation of the auxiliary equipment of a vessel and/or for lubricating of the vessel's engine or other machinery.

These procedures do not apply for the transfer of liquid hydrocarbon between two vessels where the product being transferred is deemed as cargo. Such transfers require an oil transfer licence as per the Merchant Shipping (Ship to Ship Transfer) Regulations 2010/1228 as amended by the Merchant Shipping (Ship to Ship Transfer) Regulations 2012/742.

The guidance provided herein should also be used for waste oil discharge operations on all commercial vessels and while this guidance is worded to reflect the operation of larger commercial vessels it should be adapted for the operation of smaller vessels where practicable.

2. Purpose

The principle purpose of these procedures are to minimise the risks to personnel, to protect the environment during loading / discharging of oil for bunkers and to ensure that best practice is applied to the supply and receipt of bunkers.

3. Responsibility

The Master/skipper of the vessel involved in bunkering, the crew member in charge of the bunkering operation and the Harbour Operator are responsible for the adherence to these procedures.

CFL are responsible for the introduction of the bunkering procedures and is responsible for monitoring compliance with these procedures by any commercial vessels within the harbour area.

4. Bunkering Procedures

The Master/Skipper of a vessel involved in bunkering shall ensure that bunkering will only take place provided:

- a. Notification of the intention to bunker is given to the relevant Port Manager / Supervisor **prior** to commencement of bunkering by contacting port operations staff at the relevant port office stating the berth, type of bunker oil and the time that bunkering will commence.
- b. The appropriate pre-delivery checklist must be accurately and correctly completed. The bunker checklist that is required will be the most relevant form from the list below:
 - [Form 2.167 - Small Commercial and Fishing Vessels \(<50gt\)](#)
 - [Form 2.168 - Commercial Vessels \(>50gt\) For Barge Delivery](#)
 - [Form 2.169 - Commercial Vessels \(>50gt\) For Road Tanker Delivery](#)
 - [Form 2.170 - Commercial Vessels \(>50gt\) For Truck / Lorry Delivery](#)
 - [Form 2.171 - Commercial Vessels \(>50gt\) For Pipeline Delivery](#)
- c. The Pre-Delivery Checklist is a safety checklist designed to cover deliveries of marine fuels and lubricants, whether by barge, road tanker, road truck or pipeline at a quayside, slipway, pier or terminal. The checklist addresses basic safety checks for transfer of oil products and is to be used in conjunction with the standard marine delivery documentation.
- d. The completion of pre-delivery checklists shall be undertaken upon every physical delivery of product.
- e. The Pre-Delivery Checklist must be completed before the physical delivery of products is undertaken.
- f. The supplier's representative shall invite the Officer in Charge to go through, check and complete all items listed in the Pre-Delivery Checklist together. This checklist should be acknowledged by the Office in Charge prior to the commencement of delivery. If the Office in Charge or his representative declines the invitation or is unable to complete all the items listed, delivery should not take place.
- g. The supplier's representative has the right to stop the delivery if he/she feels that without a completed Pre-delivery checklist a safe transfer cannot be assured.
- h. Copies of the completed Pre-Delivery Checklists must be kept by the Port Manager for a period of 1 month from the date of delivery.
- i. The completed Pre-Delivery Checklists must be made available to the CMAL Harbour Master upon request.
- j. Where the vessel's operating procedures use an equivalent or more comprehensive checklist than the examples listed above, that checklist may be used instead. The original or a copy is to be forwarded to the Harbour Operator.
- k. The Master/Skipper of a vessel involved in bunkering shall ensure that the bunker checklist, duly completed and signed, will be available for inspection during the bunkering and afterwards if required.

The Master/Skipper of the bunkering vessel shall not commence bunkering before having ensured that:

- a. An Officer in Charge has been duly appointed.
- b. The Officer in Charge will be responsible for the safe stemming of all bunkers.
- c. Close liaison between the Officer in Charge and the Duty Deck Officer must be maintained when allocating tanks and bunker sequence to ensure excessive stresses, list or trims are avoided.

Before commencing, the appointed person in Charge of the bunker operation must ensure that:

- a. The bunker stem and loading rate / bunker plan have been discussed and finalised with all persons involved in the operation.
- b. The bunker/transfer hoses are inspected and in good condition.

- c. The bunker/transfer hoses are adequately suspended so as to avoid pinching.
- d. The bunker/transfer hoses have sufficient slack.
- e. The connections are correctly made and that any necessary gasket joints are in place, and that any threaded connections or couplings are in good order to make a good seal.*
- f. That each bolt hole in the bunker line connecting flanges is fitted with a well tightened bolt or, if securing the bunker line is only possible by means of reliably constructed clamps or quick release couplings, both meant for the purpose mentioned that these clamps and couplings shall be fitted in such a way that any leakage is prevented.*
- g. All valves / blanks except those immediately required to be opened are fully closed.
- h. Neither the hose nor the ship's system can be over pressurised.
- i. The barge / tanker / manifold operator will remain with the barge / tanker whilst bunkering and be provided with a hand-held radio. It must be clearly understood by all persons involved in the operation when and what signals are to be given to STOP bunkering.
- j. There is sufficient space in the ship's tanks to accommodate the fuel to be delivered.
- k. Absorbent material is available in case of a spillage.
- l. The save-all / bund around the bunker connection is empty and oil-tight, with drain plug secured in place. Where portable bunds are used they must be secured against any movement.
- m. All scuppers where fitted are securely plugged.
- n. The tanks should not be filled to the maximum of their normal volumetric capacity; the loading rate should be slowed appropriately if 90% capacity is to be exceeded, and necessary precautions taken.
- o. On-board oil spill response equipment to be readily accessible in the event of a spill.

* Where a pistol grip delivery system is used, conditions e) & f) will be considered to have been met if a properly maintained nozzle is used, which conforms to BS 7117 or equivalent.

Where the bunkers are from road tanker, the driver will comply with the above as appropriate.

4.1 Bunkering during Cargo Operations

An on-site risk assessment must be carried out for all vessels wishing to bunker whilst loading or discharging. The Port Manager must be notified of the results of the risk assessment prior to the commencement of bunkering operations where the risk cannot be reduced to ALARP.

The on-site risk assessment must take into account:

- a. The problems associated with bunkering from road tanker e.g. heavy plant and equipment operating on the quay, movement of loads on and above the quay, manual handling operations and movement of personnel and pedestrians.
- b. A safe distance should be maintained between cargo operations and bunkering activities.
- c. The Port Manager and/or deputy must be notified before and on completion of bunkering.
- d. Unless authorised by the CFL Area Harbour Operations Manager, bunkering by barge / tanker is only permitted during daylight hours, it must cease during the hours of darkness.

Cargo operations shall be stopped immediately if an oil spill occurs until the situation is assessed.

The risk assessment, control measures and checklist must be fully understood by the Master/Skipper of the vessel and operators involved in bunkering operations and must be utilised on each and every occasion.

4.2 Changes to Bunker Plans

Alterations to the plan for bunkering should only be made after full consideration has been given to all possible consequences resulting from these alterations.

The Master/Skipper of the vessel involved in bunkering shall, on completion of the bunkering operation, ensure that:

- a. The hoses are completely drained into the vessels tanks. (There must be a clear procedure for draining the hose which includes recognising the amount of oil likely to be in the hose and using save-alls / bunds of suitable size.)
- b. Filling cap is replaced.
- c. Any minor deck spillages are cleaned up.
- d. Any oil in the save-all is mopped up.
- e. Any oil soaked materials are disposed of in a safe and non-polluting manner.
- f. Reference should be made to the Port Waste Management Plan and the vessel's own Waste Management Plan.

5. Points of Note

- Fuels, especially diesel oil, may tend to foam at a high rate and therefore occupy a greater space than predicted.
- The effective tank capacity may be reduced due to a list. Many tanks extend from a ship's side to the centreline. Air vent pipes are commonly as far outboard as possible. If a vessel has a list, air may become trapped in the tank and will occupy space, which is theoretically available for fuel.
- Effective capacity may also be lost due to trim if the tank has a single air pipe near one end.
- At least two means of sounding each tank should be available, e.g. two sounding rods/tapes or one sounding rod and a reliable tank gauge. Tank gauges must be verified periodically during bunkering.
- Valves should be promptly and properly operated with preferably at least one tank open at all times. The tanks are not to be over-filled. They should not be filled to the maximum of their normal volumetric capacity: loading rate should be slowed appropriately when approaching 90% of capacity. If this is to be exceeded, the flow rate into the tanks must be significantly reduced and arrangements made for the flow to be diverted into another tank if the complete closure of the vessel's valve is not possible.
- If cargo loading / discharging is to continue during bunkering then any such loading / discharging should not be carried out in such a way as to induce rapid changes of list and /or trim.
- Ballast should not be pumped into the vessel's tanks during bunkering unless absolutely essential. If it cannot be avoided, every precaution must be taken to prevent the ballast water from overflowing onto the vessel's deck. If any sizeable quantity of water overflows, bunkering is to be suspended until the decks are clear. The same precautions apply to the loading of fresh water.
- Bunker spill exercises should be incorporated in vessel SOPEP drills to train the crew in the correct response to take following a bunkering incident. All crewmembers involved in bunkering operations should receive as minimum basic on-board familiarisation training with the systems to be used.
- The inspection of the hoses prior to bunkering operations will consist of a visual inspection.
- This should be backed up by a maintenance programme for the hoses which includes regular pressure testing to ensure integrity of hoses.

PARTICULAR CARE IS TO BE TAKEN WHEN NEARING COMPLETION OF BUNKERING.

In the event of a spillage on board the vessel during bunkering operations, refer to the Ships Oil Pollution Emergency Plan (SOPEP) and report all spills to the Port Manager. If there is actual spillage (including a realistic risk of such an event) to the harbour water or shore infrastructure, all spills must be reported to the Port Manager immediately and the shore Oil Spill Contingency Plan (OSCP) shall be invoked.