

APPENDIX 4

GUIDELINES FOR COMPLETING THE SHIP/SHORE SAFETY CHECKLIST

The purpose of the Ship/Shore Safety Checklist is to improve working relationships between ship and terminal, and thereby to improve the safety of operations. Misunderstandings occur and mistakes can be made when ships' officers do not understand the intentions of the terminal personnel, and the same applies when terminal personnel do not understand what the ship can and cannot safely do.

Completing the checklist together is intended to help ship and terminal personnel to recognize potential problems, and to be better prepared for them.

1 Is the depth of water at the berth, and the air draught,* adequate for the cargo operations to be completed ?

The depth of water should be determined over the entire area the ship will occupy, and the terminal should be aware of the ship's maximum air draught and water draught requirements during operations. Where the loaded draught means a small underkeel clearance at departure, the Master should consult and confirm that the proposed departure draught is safe and suitable.

The ship should be provided with all available information about density and contaminants of the water at the berth.

- * The term air draught should be construed carefully: if the ship is in a river or an estuary it usually refers to maximum mast height for passing under bridges, while on the berth it usually refers to the height available or required under the loader or unloaders.

2 Are mooring arrangements adequate for all local effects of tide, current, weather, traffic and craft alongside?

Due regard should be given to the need for adequate fendering arrangements. Ships should remain well secured in their moorings. Alongside piers or quays, ranging of the ship should be prevented by keeping mooring lines taut; attention should be given to the movement of the ship caused by tides, currents or passing ships and by the operation in progress.

Wire ropes and fibre ropes should not be used together in the same direction because of differences in their elastic properties.

3 In emergency, is the ship able to leave the berth at any time ?

The ship should normally be able to move under its own power at short notice, unless agreement to immobilise the ship has been reached with the terminal representative, and the port authority where applicable.

In an emergency a ship may be prevented from leaving the berth at short notice by a number of factors. These include low tide, excessive trim or draught, lack of tugs, no navigation possible at night, main engine immobilised, etc. Both the ship and the terminal should be aware if any of these factors apply, so that extra precautions can be taken if need be.

The method to be used for any emergency unberthing operation should be agreed taking into account the possible risks involved. If emergency towing-off wires are required, agreement should be reached on their position and method of securing.

4 Is there safe access between the ship and the wharf ?

The means of access between the ship and the wharf must be safe and legal, and may be provided by either ship or terminal. It should consist of an appropriate gangway or accommodation ladder with a properly fastened safety net underneath it. Access equipment must be tended, since it can be damaged as a result of changing heights and draughts; **persons responsible for tending it must be agreed between the ship and terminal, and recorded in the checklist.**

The gangway should be positioned so that it is not underneath the path of cargo being loaded or unloaded. It should be well illuminated during darkness. A lifebuoy with a heaving line should be available on board the ship near the gangway or accommodation ladder.

5 Is the agreed ship/terminal communications system operative ?

Communication should be maintained in the most efficient way between the responsible officer on duty on the ship and the responsible person ashore. **The selected system of communication and the language to be used, together with the necessary telephone numbers and/or radio channels, should be recorded in the checklist.**

6 Are the liaison contact persons during operations positively identified?

The controlling personnel on ship and terminal must maintain an effective communication with each other and their respective supervisors. **Their names, and if appropriate where they can be contacted, should be recorded in the checklist.**

The aim should be to prevent development of hazardous situations, but if such a situation does arise, good communication and knowing who has proper authority can be instrumental in dealing with it.

7 Are adequate crew on board, and adequate staff in the terminal, for emergency ?

It is not possible or desirable to specify all conditions, but it is important that a sufficient number of personnel should be on board the ship, and in the terminal throughout the ship's stay, to deal with an emergency.

The signals to be used in the event of an emergency arising ashore or on board should be clearly understood by all personnel involved in cargo operations.

8 Have any bunkering operations been advised and agreed ?

The person on board in charge of bunkering must be identified, together with the time, method of delivery (hose from shore, bunker barge, etc.) and the location of the bunker point on board. Loading of bunkers should be co-ordinated with the cargo operation. The terminal should confirm agreement to the procedure.

9 Have any intended repairs to wharf or ship whilst alongside been advised and agreed?

Hot work, involving welding, burning or use of naked flame, whether on the ship or the wharf may require a hot work permit. Work on deck which could interfere with cargo work will need to be coordinated.

In the case of combination carrier a gas free certificate (including for pipelines and pumps) will be necessary, issued by a shore chemist approved by the terminal or port authority.

10 Has a procedure for reporting and recording damage from cargo operations been agreed?

Operational damage can be expected in a harsh trade. To avoid conflict, a procedure must be agreed, before cargo operations commence, to record such damage. An accumulation of small items of damage

to steel work can cause significant loss of strength for the ship, so it is essential that damage is noted, to allow prompt repair.

11 Has the ship been provided with copies of port and terminal regulations, including safety and pollution requirements and details of emergency services ?

Although much information will normally be provided by a ship's agent, a fact sheet containing this information should be passed to the ship on arrival, and should include any local regulations controlling the discharge of ballast water and hold washings.

12 Has the shipper provided the master with the properties of the cargo in accordance with the requirements of chapter VI of SOLAS?

The shipper should pass to the master, for example, the grade of cargo, particle size, quantity to be loaded, stowage factor, and cargo moisture content. The IMO BC Code gives guidance on this.

The ship should be advised of any material which may contaminate or react with the planned cargo, and the ship should ensure that the holds are free of such material.

13 Is the atmosphere safe in holds and enclosed spaces to which access may be required, have fumigated cargoes been identified, and has the need for monitoring of atmosphere been agreed by ship and terminal?

Rusting of steelwork or the characteristics of a cargo may cause a hazardous atmosphere to develop. Consideration should be given to: oxygen depletion in holds; the effect of fumigation either of cargo to be discharged, or of cargo in a silo before loading from where gas can be swept on board along with the cargo with no warning to the ship; and leakage of gases, whether poisonous or explosive, from adjacent holds or other spaces.

14 Have the cargo handling capacity and any limits of travel for each loader/unloader been passed to the ship/terminal ?

The number of loaders or unloaders to be used should be agreed, and their capabilities understood by both parties. **The agreed maximum transfer rate for each loader/unloader should be recorded in the checklist.**

Limits of travel of loading or unloading equipment should be indicated. This is essential information when planning cargo operations in berths where a ship must be shifted from one position to another due to loading. Gear should always be checked for faults and that it is clear of contaminants from previous cargoes. The accuracy of weighing devices should be ascertained frequently.

15 Has a cargo loading and unloading plan been calculated for all stages of loading/deballasting or unloading/ballasting?

Where possible the ship should prepare the plan before arrival. To permit her to do so the terminal should provide whatever information the ship requests for planning purposes. On ships which require longitudinal strength calculations, the plan should take account of any permissible maxima for bending moments and shear forces.

The plan should be agreed with the terminal and a copy passed over for use by terminal staff. All watch officers on board and terminal supervisors should have access to a copy. No deviation from the plan should be allowed without agreement of the master.

According to SOLAS regulation VI/7, it is required to lodge a copy of the plan with the appropriate authority of the port State. The person receiving the plan should be recorded in the checklist.

- 16 Have the holds to be worked been clearly identified in the loading or unloading plan, showing the sequence of work, and the grade and tonnage of cargo to be transferred each time the hold is worked ?**

The necessary information should be provided in the form as set out in appendix 2 of this Code.

- 17 Has the need for trimming of cargo in the holds been discussed, and the method and extent been agreed ?**

A well-known method is spout trimming, and this can usually achieve a satisfactory result. Other methods use bulldozers, front-end loaders, deflector blades, trimming machines or even manual trimming. The extent of trimming will depend upon the nature of the cargo, and must be in accordance with the BC Code.

- 18 Do both ship and terminal understand and accept that if the ballast programme becomes out of step with the cargo operations, it will be necessary to suspend cargo operations until the ballast operation has caught up ?**

All parties will prefer to load or discharge the cargo without stops if possible. However, if the cargo or ballast programmes are out of step a stop to cargo handling must be ordered by the master and accepted by the terminal to avoid the possibility of inadvertently overstressing the ship's structure.

A cargo operations plan will often indicate cargo check points, when conditions will also allow confirmation that the cargo and ballast handling operations are in alignment.

If the maximum rate at which the ship can safely accept the cargo is less than the cargo handling capacity of the terminal, it may be necessary to negotiate pauses in the cargo transfer programme or for the terminal to operate equipment at less than the maximum capacity.

In areas where extremely cold weather is likely, the potential for frozen ballast or ballast lines should be recognized.

- 19 Have the intended procedures for removing cargo residues lodged in the holds while unloading been explained to the ship and accepted ?**

The use of bulldozers, front-end loaders or pneumatic/hydraulic hammers to shake material loose should be undertaken with care, as wrong procedures can damage or distort ships' steel work. Prior agreement to the need and method intended, together with adequate supervision of operators, will avoid subsequent claims or weakening of the ship's structure.

- 20 Have the procedures to adjust the final trim of the loading ship been decided and agreed ?**

Any tonnages proposed at the commencement of loading for adjusting the trim of the ship can only be provisional, and too much importance should not be attached to them. The significance lies in ensuring that the requirement is not overlooked or ignored. The actual quantities and positions to be used to achieve final ship's trim will depend upon the draft readings taken immediately beforehand. **The ship should be informed of the tonnage on the conveyor system since that quantity may be large and must still be loaded when the order "stop loading" is given. This figure should be recorded in the checklist.**

21 Has the terminal been advised of the time required for the ship to prepare for sea, on completion of cargo work?

The procedure of securing for sea remains as important as it ever was, and should not be skimped. Hatches should be progressively secured on completion so that only one or two remain to be closed after cargo work is finished.

Modern deep water terminals for large ships may have very short passages before the open sea is encountered. The time needed to secure, therefore, may vary between day or night, summer or winter, fine weather or foul weather.

Early advice must be given to the terminal if any extension of time is necessary.