



Means of embarkation and disembarkation from ships in port

The purpose of this Marine Notice is to bring to the attention of ship owners, ship operators, ship masters, port authorities, terminal operators and persons boarding and disembarking ships the requirements for accommodation ladders and gangways under section 68 of Marine Order 21.

Section 68 of Marine Order 21 requires access to be provided in accordance with Schedule 8 of the order. This section places obligations on both the master of the ships and those using the access.

It is important to note that the master of the ship is not required to provide the means of access, however, where it is provided by the ship the master must ensure the means of access complies with MO 21, SOLAS regulation II-1/3-9 and MSC.1/Circ.1331. If the master cannot provide compliant access with the means available on board, an alternate arrangement must be put in place rather than employing an unsafe/non-compliant arrangement.

Where a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern identified are brought to the attention of:

- (a) the person providing access; and
- (b) a person requiring access to or from the vessel.

The master and any provider of the means of access are both responsible for ensuring that no unsafe means of access are used.

AMSA has become aware of the following recurring issues:

Suspended Accommodation Ladders

Where access is provided by means of the ship's accommodation ladder Schedule 8 of Marine Order 21 requires that the means of access is **at an angle allowing safe access to the vessel and firmly landed on the wharf edge.**



AMSA is aware that arrangements at some berths in Australia prevent accommodation ladders being safely landed on the wharf edge. In such situations it is a common practice to suspend the ship's accommodation ladder at the ship's side with a short brow or gangway fitted to the lower accommodation ladder platform to bridge the gap between the ship and wharf edge.

In other cases terminal access restrictions are being imposed resulting in accommodation ladders being rigged on the outboard side of the ship with access by launch.

If the use of these practices results in an unsafe means of access to or from a vessel in port, it will be a breach of section 68 of Marine Order 21.

Fall prevention devices on suspended gangways

Where this occurs some terminals are requiring or encouraging the ship master to fit fall prevention devices to suspended ship's accommodation ladders, especially those that are deployed on the outboard side of the ship.

There are no requirements under Marine Order 21 or SOLAS regulation II -1/3-9 for the fitting of accommodation ladder fall prevention arrangements and no standards in MSC.1/Circ.1331 for the construction, maintenance and operational testing of gangway fall prevention arrangements. In some cases ships may be fitted with class approved and certified gangway fall prevention arrangements, however, this is not the case in the majority of ships AMSA has inspected.

AMSA has noted in many cases that the fall prevention arrangements fitted are inadequate for their intended purpose and introduce unacceptable hazards and risks. The fall prevention arrangements have been found to have inadequate load bearing capacity because they are connected to non-load bearing parts of the accommodation ladder and ship structure or the tensile strength of ropes, wires, pulleys and fittings is inadequate. Some arrangements are not adjustable and add a further risk to safety when the ships draft changes or due to tidal variation.

AMSA does not object in principle to a fall prevention device that is properly designed and fit for purpose. However, where these devices or arrangements pose a safety risk AMSA will take action as appropriate.



Accommodation ladders and gangways at steep angles



The angle of an accommodation ladder/gangway is governed by two requirements of MSC.1/Circ.1331.

Section 3.4.1 of MSC.1/ Circ.1331 requires that ships accommodation ladders are of sufficient length that at the maximum design operating angle the lower platform will be not more than 600 mm above the waterline in the lightest seagoing condition, as defined in SOLAS regulation III/3.13.

The second relates to the maximum angle of inclination where section 3.7.1 of MSC.1/ Circ.1331 requires that:

- Gangways (such as shore supplied brows or gangways) not be used at an angle of inclination greater than 30° from the horizontal; and
- Ships accommodation ladders should not be used at an angle greater than 55° from the horizontal, unless designed and constructed for use at angles greater than these and marked as such, as required by paragraph 3.5 of MSC.1/Circ.1331.

Unsafe arrangements

In order to prevent undue delays in preparation for loading it has become common practice in many Australian bulk terminals for ships, especially where a high loading rate is expected, to be deballasted beyond their lightest seagoing condition in preparation for loading.

This has resulted in ships accommodation ladders being rigged at angles of inclination greater than their design limits at the commencement of the load. This is especially evident at wharfs with a minimal height above high water or where access to the ship is via launch using an accommodation ladder rigged on the seaward side of the ship. AMSA has noted accommodation ladders in use where the angle is well in excess of 55°. Such angles result in access being both difficult and dangerous.

AMSA surveyors have also found gangways provided by terminals or port authorities are frequently rigged at angles of more than 30°. This is prevalent in terminals where there is a large tidal range and berth design constraints. Gangways should be frequently monitored and adjusted as required to ensure they do not become too steep or are not firmly landed on the wharf edge. Ships may not be able to move or adjust shore gangways due to a lack of appropriate lifting equipment or the position of the gangway on the ship, consequently the provider of the gangway is responsible to ensure adequate resources are provided to move / adjustment gangways as required by the master.

AMSA is increasingly concerned that some unsafe arrangements are being employed as a result of solutions to other perceived concerns. For example, it has been suggested to AMSA that some arrangements requiring access only via launch have been implemented to eliminate Work Health and Safety (WHS) concerns for crew/agents/providores etc. transiting through terminals. When the boarding by launch is unsafe or actually imposes hazards greater than terminal transiting, this arrangement needs to be reviewed. Similarly, employing hanging accommodation ladders with an attached brow simply to overcome appropriate monitoring of the access or to eliminate the need to call in personnel to adjust the landing of the access on the wharf is not in principle an adequate reason to implement arrangements outside the design of the shipboard access arrangement.

It is important to note that accommodation ladders and gangways are designed and tested to be landed on a solid surface. To do otherwise is impacting on the engineering design of the shipboard access arrangement, and that in itself places a higher duty of care on those requiring the change in access arrangement.

Action by AMSA

AMSA wishes to remind masters that they must make every effort to comply **fully** with Marine Order 21 and seek the assistance of port authorities, terminal operators and stevedores as appropriate in ensuring compliance. It should be noted that:

1. If a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern has the attention of the person providing access and persons requiring access to or from the vessel and it is the master's responsibility to ensure that only a safe means of access is used. **The shore provider of the access is also responsible for ensuring it complies with Marine Order 21.**
2. Where an accommodation ladder or gangway is employed owners and operators of vessels are reminded that any accommodation ladder or gangway fall prevention arrangements fitted to their ships must be fit for purpose and should seek assistance from their flag and/or class society in this regard.



3. Gangways and accommodation ladders must not be used where the angle exceeds the allowable limits or, in the case of accommodation ladders, the lower platform is too high above the water.

Where an AMSA surveyor identifies that a shore facility has provided an unsafe arrangement for access, or does not provide a mechanism where the ship can provide a safe access by its own means, then an Improvement Notice may be issued to the relevant person under section 265 of the *Navigation Act 2012*. This will specify the action to be taken and the time frame for completion.

If AMSA prohibits use of a means of access, use of that access will constitute an offence.



In addition, all Australian workers are covered by relevant workplace health and safety legislation and this places an obligation on employers and employees to act safely. This means that all persons using ships access have an obligation not to expose themselves to hazards which includes using an unsafe means of access.

AMSA wishes to encourage port authorities and terminal operators to reference the information provided by;

- *Marine Order 21 (Safety of navigation and emergency procedures) 2012*
- *MSC.1/Circ.1331 – Guidelines for Construction, Installation, Maintenance and Inspection/Survey of means of Embarkation and Disembarkation*
- *ILO Code of Practice: Accident prevention on board ship at sea and in port (Section 8 - Safe access to ship)*
- *ILO Code of Practice: Safety and health in ports (Section 3.4 - Shore-side access to ships)*
- *Marine Notice 4/2010 – Construction, Inspection and Maintenance of Accommodation Ladders and Gangways*

and to take all necessary measures to assist ship masters in providing safe access to their ships.

Brad Groves
A/G Deputy Chief Executive Officer
August 2014

Australian Maritime Safety Authority
GPO Box 2181
CANBERRA ACT 2601

File No 2014/2492