SAFE MOVEMENT

13.1 General Advice

13.1.1 Personnel are reminded to take care as they move about the ship. In particular, the following points, though obvious, are all too often overlooked:

- personnel should watch out for tripping hazards, and protrusions such as pipes, framing etc;
- the possibility of a sudden or heavy roll of the ship should always be borne in mind;
- suitable footwear should be worn which will protect toes against accidental stubbing and falling loads, and will afford a good hold on deck and give firm support while using ladders; extra care should be taken when using ladders whilst wearing sea boots;
- it is dangerous to swing on or vault over stair rails, guard-rails or pipes;
- injuries are often caused by jumping off hatches etc;
- manholes and other deck accesses should be kept closed when not being used; guard-rails should be erected and warning signs posted when they are open;
- spillage of oil, grease, soapy water etc, should be cleaned up as soon as practicable;
- areas made slippery by snow, ice or water should be treated with sand or some other suitable substance;
- the presence of temporary obstacles should be indicated by appropriate warning signs;
- litter and loose objects, e.g. tools, should be cleared up;
- wires and ropes should be coiled and stowed;
- lifelines should be rigged securely across open decks in rough weather;
- ladders should be secured and ladder steps kept in good condition; care should be taken when using ladders and gangways providing access to or

about the vessel, particularly when wearing gloves;

- means of access to fire fighting equipment, emergency escape routes and watertight doors should never be obstructed.

13.2 Drainage

13.2.1 Decks which need to be washed down frequently or are liable to become wet and slippery, should be provided with effective means of draining water away. Apart from any open deck these places include the galley, the ship's laundry and the washing and toilet accommodation.

13.2.2 Drains and scuppers should be regularly inspected and properly maintained.

13.2.3 Where drainage is by way of channels in the deck, these should be suitably covered.

13.2.4 Duck boards, where used, should be soundly constructed and designed and maintained so as to prevent accidental tripping.

13.3 Transit Areas

13.3.1 Where necessary for safety, walkways on decks should be clearly marked, eg by painted lines or other means. Where a normal transit area becomes unsafe to use for any reason, the area should be closed until it can be made safe again.

13.3.2 Transit areas should where practicable have slip-resistant surfaces. Where an area is made slippery by snow, ice or water, sand or some other suitable substance should be spread over the area. Spillages of oil or grease etc should be cleaned up as soon as possible.

13.3.3 When rough weather is expected, life-lines should be rigged securely across open decks.

13.3.4 Gratings in the deck should be properly maintained and kept closed when access to the space below is not required.

13.3.5 Permanent fittings which may cause hazards to movement, e.g. pipes, single steps, framing, door arches, top and bottom rungs of ladders, should be made conspicuous by use of contrasting colouring, marking, lighting or signing. Temporary obstacles can also be hazardous and, if they are to be there for some time, they should be marked by appropriate warning signs.

13.3.6 When at sea, any gear or equipment stowed to the side of a passageway or walkway should be securely fixed or lashed against the movement of the ship.

13.3.7 Litter and loose objects, eg tools, should not be left lying around. Wires and ropes should be stowed and coiled so as to cause least obstruction.

13.3.8 Particular attention should be given to areas to which shore-based workers and passengers have access, especially on deck, as they will be less familiar with possible hazards.

13.3.9 When deck cargo is being lashed and secured, special measures may be needed to ensure safe access to the top of, and across, the cargo.

13.4 Lighting

13.4.1 The level of lighting should be such as to enable obvious damage to, or leakage from, packages to be seen. When there is a need to read labels or container plates or to distinguish colours the level of lighting should be adequate to allow this, or other means of illumination should be provided.

13.4.2 Lighting should be reasonably constant and arranged to minimise glare and dazzle, the formation of deep shadows and sharp contrasts in the level of illumination between one area and another.

13.4.3 Where visibility is poor, e.g. due to fog, clouds of dust, or steam, which could lead to an increase in the risks of accidents occurring, the level of lighting should be increased above the recommended minimum.

13.4.4 Lighting facilities should be properly maintained. Broken or defective lights should be reported to the responsible person and repaired as soon as practicable.

13.4.5 Before leaving an illuminated area or space a check should be made that there are no other persons remaining within that space before switching off or removing lights.

13.4.6 Unattended openings in the deck should either be kept illuminated or be properly or safely closed before lights are switched off.

13.4.7 When portable or temporary lights are in use, the light supports and leads should be arranged, secured or covered so as to prevent a person tripping, or being hit by moving fittings, or walking into cables or supports. Any slack in the leads should be coiled. The leads should be kept clear of possible causes of damage eg running gear, moving parts of machinery, equipment and loads. If they pass through doorways, the doors should be secured open. Leads should not pass through doors in watertight bulkheads or fire door openings when the ship is at sea. Portable lights should never be lowered or suspended by their leads.

13.4.8 Where portable or temporary lighting has to be used fittings and leads should be suitable and safe for the intended usage. To avoid risks of electric shock from mains voltage, the portable lamps used in damp or humid conditions should be of low voltage, preferably 12 volts, or other suitable precaution taken.

13.5 Guarding of Openings

13.5.1 Hatchways open for handling cargo or stores, through which persons may fall or on which they may trip, should be closed as soon as work stops, except during short interruptions or where they cannot be closed without prejudice to safety or mechanical efficiency because of the heel or trim of the ship.

13.5.2 The guard-rails or fencing should have no sharp edges and should be properly maintained. Where necessary, locking devices and suitable stops or toe-boards should be provided. Each course of rails should be kept substantially horizontal and taut throughout their length.

13.5.3 Guard-rails or fencing should consist of an upper rail at a height of 1 metre and an intermediate rail at a height of 0.5 metres. The rails may consist of taut wire or taut chain.

13.5.4 Where the opening is a permanent access way, or where work is in progress which could not be carried out with the guards in place, guards do not have to be fitted during short interruptions in the work - eg for meals, although warning signs should be displayed where the opening is a risk to other persons.

13.6 Watertight doors

13.6.1 **Watertight doors can inflict serious injury if their operation is not carried out correctly, therefore,** all members of the crew who would have occasion to use any watertight doors should be instructed in their safe operation. **Crew members who have not been instructed in their use should not under any circumstance operate them until such training has been given.**

13.6.2 Particular care should be taken when using power operated watertight doors which have been closed from the bridge. If opened locally under these circumstances the door will re-close automatically with a force

sufficient to crush anyone in its path as soon as the local control has been released. The local controls are positioned on each side of the door so that a person passing through may open the door and then reach to the other control to keep the door in the open position until transit is complete. As both hands are required to operate the controls, no person should attempt to carry any load through the door unassisted. **If it is necessary to carry anything through a watertight door in these circumstances another person should be employed to assist.**

13.6.3 Notices clearly stating the method of operation of the local controls should be prominently displayed on both sides of each watertight door.

13.6.4 No-one should attempt to pass through a watertight door when it is closing and/or the warning bell is sounding. In all cases you should wait until the door is fully open before attempting to pass through it.

13.6.5 When reading this advice, note should be made of the content of MGN 35 (M+F) (Accidents when using power operated watertight doors).

- Class C watertight doors should never be opened without prior authority and will often close automatically so extra care should be paid when transiting them.
- Class B watertight doors will normally be closed unless personnel are working in an adjacent compartment. If it is closed, after opening manually it may automatically close.
- Class A watertight doors will normally be open. In all cases, if a watertight door is found closed it may automatically close after being opened manually so extra care must be taken.

13.6.6 Any watertight door found in a closed position must be returned to that position after opening.

13.7 Ship-board Vehicles

13.7.1 Persons selected to drive ships' powered vehicles and powered mobile lifting appliances should be fit to do so, and have been trained for the particular category of vehicle or mobile lifting appliance to be driven, and tested for competence.

13.7.2 Authorisations of crew members should either be individually issued in writing or comprise a list of persons authorised to drive. These authorisations may need to be made available for inspection to Dock Authorities.

13.7.3 Maintenance of ships' powered vehicles and powered mobile lifting appliances should be undertaken in accordance with manufacturers' instructions.

13.7.4 Drivers of ships' powered vehicles and powered mobile lifting appliances should exercise extreme care, particularly when reversing.

13.8 Working on deck while ship is at sea

The responsible officer should ensure that seafarers working on deck are properly instructed in the tasks that they are required to perform.

Seafarers should be prohibited at all times from sitting upon the vessel's bulwark or rail.

Bridge watchkeeping officers should be informed of all work being performed on deck or in deck spaces.

13.9 Heavy weather

If heavy weather is expected, lifelines should be rigged in appropriate locations on deck.

Attention should be given to the dangers of allowing any person out on deck during heavy weather.

No seafarers should be on deck during heavy weather unless it is ABSOLUTELY NECESSARY for the safety of the ship or crew.

The lashings of all deck cargo should be inspected and tightened, as necessary, when heavy weather is expected.

Anchors should be secured and hawse and spurling pipe covers fitted and cemented when rough weather is expected, regardless of the expected voyage duration.

Work on deck during heavy weather should be authorised by the master and the bridge watch should be informed. A risk assessment should be undertaken, and a permit to work and company checklist for work on deck in heavy weather completed.

Any persons required to go on deck during heavy weather should wear a suitable life-jacket, waterproof PPE, and be equipped with a portable transceiver.

Seafarers should work in pairs or in teams. All seafarers should be under the command of an experienced senior officer.

Risk assessment should give consideration to:

- ✓ Necessity of work (i.e. can it wait until daylight, next port, do the risks outweigh the benefits?)
- ✓ Availability of rescue & emergency medical care if things go wrong
- ✓ Use of stabilising fins (if fitted) to reduce rolling
- ✓ Adjust vessel course & speed

- ✓ Permit to work & company checklist completed
- ✓ Rigging Lifelines
- ✓ Lifejacket with Safety harness
- ✓ Adequate PPE (including full head protection that will reduce exposure to the elements)
- ✓ Using head mounted torches
- ✓ Using waterproof worksuits with reflective tape fitted
- ✓ Deck illumination
- ✓ Visual contact from bridge
- ✓ Working in [at least] pairs
- ✓ Water resistant [proof] portable radios for communications with bridge
- ✓ Use of bridge searchlight to determine predominant wave direction at night. In restricted visibility or darkness radar may be used to determine the predominant wave direction
- ✓ Be aware that even in a regular wave pattern "rogue" waves can exist which can vary in direction and size from the regular wave pattern being experienced
- ✓ ALWAYS plan for, and expect the unexpected