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Circular Letter No.4534
14 March 2022

To: All IMO Members
Intergovernmental organizations
Non-governmental organizations in consultative status

Subject: **Communication from the Government of Ukraine**

The Government of Ukraine has sent the attached communication, dated 14 March 2022, with the request that it be circulated by the Organization.



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The Embassy of Ukraine in the United Kingdom of Great Britain and Northern Ireland presents its compliments to the Secretariat of the International Maritime Organisation and, in addition to the communication of the Maritime administration of Ukraine of 06 March 2022 regarding the seafarers' evacuation procedures, which was issued by the Circular Letter No.4532 of 14 March 2022, has the honour to transmit the guidelines for laying up vessels, prepared by the Maritime Administration of Ukraine based on generally recognized good practices in respective field.

The Embassy of Ukraine would also appreciate if this Note Verbal is circulated among IMO Member States to all IMO Member States, international organizations which have concluded agreements of cooperation with the IMO and non-governmental organizations in consultative status with the IMO.

The Embassy of Ukraine to the United Kingdom of Great Britain and Northern Ireland avails itself of this opportunity to renew to the Secretariat of the International Maritime Organisation the assurances of its highest consideration.

Encl.

YL London, 14 March 2022



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Guidelines for Laying up Vessels

1. Introduction

These guidelines are designed to assist Members in preparing vessels for lay-up and for maintaining them in a safe and efficient condition during a period of lay-up, and to facilitate subsequent reactivation, minimizing the risk of P&I claims. Such claims could typically be for injuries to crew, pollution of the local environment, particularly arising from the leakage of oil leakage. Other possible claims could arise from damage to third party property, including other vessels.

Ships that are laid up recommended that the vessels crew be reduced to the minimal safe number of crew needed to keep the vessel operational. These guidelines are subject to compliance with all such requirements and recommendations.

Shipowners should note that the specific requirements of original equipment manufacturers may take precedence over the general guidelines presented in this document with regard to the procedures for lay-up and long term protection and maintenance of that equipment.

In order to efficiently lay up a vessel the shipowner will decide on the likely period of inactivity, the need to reduce overhead costs, the extent of reduction in manning and crew safe. There will be other commercial considerations including the time and cost needed for reactivation and the age and value of the ship.

A full risk assessment should be carried out by the shipowner or operator. This needs to cover the safety of crew, moorings and environment and also the preservation of the vessel and machinery.

Written procedures for the lay-up, manning, inspections and machinery maintenance and subsequent reactivation should be prepared so that all likely risks can be suitably managed. If necessary professional guidance should be found.

Records of all lay-up activities should be retained on board and copies placed safely ashore to assist with subsequent reactivation. Data, including software and settings on all electronic equipment should be backed up and similarly maintained on board and ashore. lay-up and reactivation procedures should be correctly carried out to avoid serious damage to the machinery. One area of particular uncertainty is sophisticated computer equipment, including machinery control systems and navigational equipment. When these systems will re-boot when a vessel is reactivated after a long lay-up and then these systems should operate correctly.

It should be noted that these guidelines are of a general nature and are not intended to be complete or covering all circumstances or vessel types. They may need to be modified to suit a particular ship or situation.

2. Lay-up Criteria

There are two basic criteria that the lay-up procedures are designed to meet:

- (a) To maintain the safety, security and protection of the vessel, crew, and the local environment.
- (b) To preserve and maintain the vessel's hull and machinery.

The vessel can be laid up either in "Hot" or "Cold" mode. For the purposes of these guidelines these conditions are defined as follows:

Hot Lay-up: any vessel that has been laid up with reduced crew but which may have some element of the ship's machinery still operating, e.g. generators.

Cold Lay-up: any vessel that has been laid up with no ship's machinery operating. The vessel may be fitted with a temporary on deck generator or connected to shore power to run de-humidifiers and for other purposes, through cables external to the ships switch boards.

"Hot" lay-up is usually relatively short term and means that the vessel will have some of the machinery working and a reduced number of crew on board, that the vessels crew will be reduced to the minimal safe number of crew needed to keep the vessel operational. The advantages are that a vessel can be easily laid up and reactivated with less cost, time and effort.

"Cold" lay-up for a longer period requires the vessel to be moored a secure and safe, all systems are shut down. There will be the minimum ongoing maintenance to prevent deterioration of the hull structure and machinery. A specialist lay-up crew may be employed, or possibly only a watchman from a contracted 'housekeeping' company will be on board for much of this period to deal with fire, flooding, moorings and security watch. The main disadvantage of a cold lay-up is the degradation of the hull, machinery and equipment. Re-commissioning may require for a lot more time.

3. Safety Lay-up locations

Due to the military actions on the territory of Ukraine associated with the aggression of the Russian Federation, and also given the attacks of the Russian army, it cannot be argued that the ports of Ukraine are a safe place in full. However, due to hostilities, for ensure the safety of the civilian population and to preserve the port infrastructure the ports of Ukraine were closed both for the entry of ships and for the exit.

The risk assessment of the location and method of lay-up needs to address the following:

- 3.1 Degree of shelter provided from open seas, wind, waves, swell, etc.
- 3.2 Method of mooring vessels: including ships berthed alongside, at buoys, lying at anchors, stern moorings, anchored rafts of several vessels, etc.
- 3.3 Detailed climatological information from the best sources available relating to the likely maximum force and direction of wind, waves and swell, and incidence of cyclones, ice, etc. The potential windage of vessels, containers on deck, etc.
- 3.4 Bathymetry and anchorage depth and type of holding ground, local currents and tides. The depth of water should be sufficient for vessels to remain afloat at all stages of the tide with sufficient under keel clearance.
- 3.5 Space available or number of designated lay-up positions and suitable access and egress channels, pilotage, tug assistance during mooring, etc. Proximity of passing traffic and other moored vessels, and proximity to any obstructions, wrecks, underwater cables or pipelines.

3.6 Details of local authorities and availability of tugs, fire fighting, medical & safety services.

3.7 Availability of services such as fresh water, waste disposal, shore power and repairers, replacement equipment and moorings, etc.

3.8 Security of location.

3.9 Assessment any local corrosive discharges or effluent.

3.10 Facilities for shore monitoring of vessel position, remote GPS monitoring etc.

4. Lay-up arrangements

Planning of the arrangements will involve consideration of the following criteria:

4.1 The method and safety of the mooring and all the various activities relating to the safety of the crew, vessel, and environment.

4.2 Approval of relevant arrangements by Flag State, Port State, Harbour or any other relevant authorities, Classification, Hull & Machinery and P&I insurers.

4.3 The preservation of the vessel and her machinery and equipment to prevent damage or deterioration, and to facilitate subsequent safe reactivation.

5. Manning

5.1 The Owners must retain sufficient crew on board to carry out the lay-up preparation. The crew can be reduced as work progresses until the vessel is finally de-manned or reduced to an agreed skeleton crew. If the vessel is to be unmanned, the lay-up contractors should provide watchmen to ensure the security of the vessel, and personnel to carry out maintenance routines.

5.2 Reductions in manning below minimum manning levels should be agreed with the relevant Flag State, local Port State or harbour authority and any necessary dispensation obtained.

6. Mooring arrangements

Mooring arrangements can vary considerably, depending upon the location chosen, and are dictated by topography and bathymetry. For example vessels may be laid up alongside a suitable berth in a sheltered port. In fjords or similar locations ships are often moored using anchors forward and wires to the shore aft. In sheltered bays or rivers they may be laid together in rafts, bow to stern, secured by anchors or buoys at both ends. In some benign areas they could be anchored using a running mooring with both anchors laid out. The moorings will also depend on the required state of readiness of main machinery and manning levels. Ideally, a full mooring analysis will be carried out to ensure that the proposed mooring arrangements will be safe, allowing for the possible maximum peak wind force from the most unfavorable direction in the planned location.

The following points should be considered:

6.1 The moorings must be sufficient to hold against the most severe wind expected from the most unfavourable direction. High profile vessels such as car carriers, passenger/cruise ships and container vessels with container stacks will require allowances to be made for the additional windage when assessing the mooring arrangements.

6.2 To minimise windage and improve anchor holding, tankers should take about 30% deadweight ballast, and bulk carriers should have maximum ballast.

6.3 Anchors should be well pulled in, with the chains as straight as possible and stretched tight. A normal scope on the anchor is 10 shackles, but more can be used.

6.4 If there is any doubt regarding anchors holding they should be picked up and re-laid. Anchor positions should be marked with buoys to show locations and to facilitate recovery if slipped.

6.5 If wires are used astern, they must be under even tension and kept taut.

6.6 Except in special circumstances, mooring for lay up on a single anchor is generally considered to be unsatisfactory.

6.7 Final lay-up draft marks forward & aft to be painted conspicuously with white lines on port and starboard sides.

6.8 Rigging of emergency towing lines fore and aft, ready for use, without adjustment, should the vessel need to be towed off. Also emergency means of quick release of moorings should be provided if propulsion machinery cannot be brought into operation.

6.9 Multiple vessels laid up together, either alongside a berth or anchored or moored in groups or "rafts", should be of a similar size. When moored in rafts, vessels are normally not more than six abreast and anchored so that they are heading in alternate directions and secured bow to stern. Vessels alongside should normally be not more than three abreast and all heading in the same direction. The arrangements for mooring, fire safety, manning and security of any other vessels in the group should also be checked, particularly if not in the same ownership or management.

6.10 Suitable fendering must be placed between ships and between ship and quay.

6.11 Positions of anchor chains, wires and mooring lines to be varied at regular intervals to prevent uneven wear in way of contact points such as hawse pipes, fairleads, winches, etc.

6.12 Anchor lights and fog signals should be fully operational, and additional deck lighting will be required if the lay-up location is close to shipping lanes.

7. Security, Safety, Protection and Environment

The purpose is to provide and maintain the following:

7.1 For a "Hot" lay-up, a sufficient number of qualified ship's officers and crew should be onboard in order to maintain a full time fire, flooding, mooring, safety and security watch over the vessel. For a "Cold" lay-up efficient, independently powered fire and flooding alarms and/or warning lights/whistles/klaxons to be fitted in machinery spaces, bilges and other spaces as deemed appropriate. Remote monitoring to be utilised where relevant.

7.2 A fire fighting capability to be provided through the continuous operational availability of emergency equipment and apparatus. Emergency fire pump to be inspected and maintained in a fully workable condition to ensure its reliable operation.

7.3 The minimisation of fire risk through the removal of all flammable material during lay-up. Safe working practices to minimise sources of ignition. All fire dampers to be inspected and freely operable. Dampers not required for essential ventilation to be closed.

7.4 Safe access for boarding or movement between vessels via a suitable gangway with adequate lighting.

7.5 Evacuation facilities through the operational upkeep of lifeboats/life rafts.

7.6 Security on board by means of limiting any access to the vessel as well as securing and sealing of external doors into the accommodation and other spaces. Provision of suitable alarm systems with remote monitoring.

7.7 Provision of a safe working environment for crew on board or for watchmens.

7.8 Any enclosed spaces to be ventilated and tested as necessary prior to entry.

7.9 Oil tanks to be drained, cleaned and maintained in gas free condition and tested at regular intervals, and all oil pipelines drained and cleaned prior to long term lay-up.

7.10 Arrangements should be made for the safe containment and frequent removal of garbage & sewage produced by crew or watch personnel.

7.11 Minimise risk of air pollution.

8. Preparation Procedures

8.1 All water/steam systems and tanks within the controlled spaces, except those required for the lay-up operation should be drained of free water (including bilge areas), dried and left open to the dehumidified atmosphere. Non-return valve internals should be removed where necessary to improve air circulation within the systems.

8.2 Hull Structure.

8.2.1 Underwater area must be adequately protected and hull potential monitored at a satisfactory level.

8.2.2 Ballast tanks should be maintained either full or empty. During a long lay-up ballast tanks should be protected by means of preservatives or sacrificial anodes.

8.2.3 All sea valves are to be fully closed and secured, with hand wheels locked or removed and electrical power isolated from automatic valves. Internal blank flanges or external welded steel blanks should be fitted where considered necessary.

8.2.4 Stern tube oil header tank levels to be regularly monitored.

8.2.5 A safe access to the Vessel must be provided for contractors, watchmen and maintenance crews.

8.3 Accommodation.

If a vessel is laid up unmanned then:

8.3.1 In addition for all sanitary fittings to have openings sealed and water supply systems isolated.

8.3.2 All excess or unnecessary equipment, stores and provisions should be offloaded, particularly in long term layup situations. Store rooms should be cleaned and doors secured in open position.

8.3.3 All cabins to be clean condition, mattresses stood on edge and all cupboard and cabin doors secured in open position.

8.3.4 All navigation and communication systems to be isolated (except local trans/receiver) and room doors left open to ensure good air circulation.

8.3.5 Lighting circuit breakers to be opened where relevant leaving only the emergency lighting circuits in use during lay-up.

8.4 External Equipment.

8.4.1 All moving and working parts of deck fittings to be fixed. Crane cabs to be secured and sealed.

8.4.2 Arrangements to be made for the regular turning of steam/hydraulic deck machinery on air. Internals of engines and all working parts will be regularly lubricated.

8.4.3 Lifeboats and davits to be kept in good working order, being regularly lowered and the engines run on test.

8.5 Internal Machinery, Boilers & Equipment. Individual machinery and boilers within the dehumidified spaces should be treated as recommended by the manufacturers and Class.

8.6 Electrical Installation.

8.6.1 Electrical power to be provided by a portable diesel generator or shore power when available. This will minimise the utilisation of the vessel's own emergency generator which can then be laid up if necessary. Temporary cables to be supplied and safely installed as necessary.

8.6.2 Full insulation tests to be carried out on all distribution systems and motors at the commencement of lay-up and subsequently at regular intervals, readings recorded and submitted to Owners.

8.6.3 The condition of external motors to be monitored by taking regular insulation readings and if the condition deteriorates to a point where it would be detrimental to the motor then, where possible, it should be removed and stowed in a dehumidified area. Heating arrangements of the electrical equipment must be provided.

8.6.4 Electrical/printed circuit boards are to be kept dry and excessive temperatures avoided. The equipment may require specialist protection and specialist testing during subsequent reactivation.

8.7 Documentation and Record Keeping.

8.7.1 All work carried out during lay-up preparation to be carefully recorded, documented and photographed. Data settings etc., in electronic equipment and computers to be backed up. Copies of such records to be held by owners and also retained on board during the lay-up period for use during subsequent reactivation.

8.7.2 All machinery and equipment components removed from their normal location to be properly labelled and stowed adjacent to the parent unit within the dehumidified spaces. The parent unit to be marked with appropriate labels where such components have been removed. Apertures/inspection openings where covers have been removed for air circulation to be covered with fine mesh wire gauze to prevent ingress of foreign matter.

8.7.3 External equipment removed to within the dehumidified spaces to be properly stowed, the storage location carefully recorded and the normal location site labelled.

8.7.4 Any spares or equipment subsequently removed for operational purposes such as transfer to other operational vessels to be recorded for replacement during later reactivation.

8.7.5 Log books of all activities on board to be maintained throughout the lay-up period.

9. Inspections

The objective is to conduct regular inspections either by the remaining crew or a contracted service company and to carry out tests on structure, machinery and equipment to ensure that the standard of preservation is maintained. Inspection and maintenance regimes should be fully documented in advance of lay-up and may include daily, weekly, monthly or annual activities. Full procedures and necessary records are to be maintained. The Owner should receive detailed monthly reports from the crew or contractors on the findings of the scheduled inspections and tests.

Such checks will include:

9.1 Frequent checks of mooring and fendering arrangements.

9.2 Frequent checks of embarkation, lighting and other safety systems.

9.3 Frequent checks on communication systems.

9.4 Regular soundings of bilges, tanks and other spaces.

9.5 Regular checks on the operation of emergency equipment and apparatus, fire, leakage, security systems and alarms.

- 9.6 Visual checks on 'controlled' space sealing arrangements.
- 9.7 Measurement checks on relative humidity levels within 'controlled' spaces.
- 9.8 Visual checks on protective coatings of all external machinery and equipment.
- 9.9 Live tests of emergency fire pump and system.
- 9.10 Measurement checks of electrical circuit insulation continuity.
- 9.11 Visual checks on all occupied storage tank levels.

10. Maintenance During Lay-Up

Lay-up routines to be carried out throughout the laid up period by remaining crew or contractor, including checks as listed in section 9.

10.1 To prevent seizure of the main engine and auxiliary engines, compressors, pumps and other rotating equipment, they are to be regularly turned with lubrication. Machinery to be stopped in a different position each time. Specific guidance should be obtained from machinery manufacturers.

10.2 At least one stores crane should be in good working order for use during the lay-up period, and have valid load test certificates issued.
