SHIPPING INDUSTRY GUIDELINES ON

TRANSITIONAL MEASURES FOR SHIPOWNERS SELLING SHIPS FOR RECYCLING

IN PREPARATION FOR THE ENTRY INTO FORCE OF THE IMO HONG KONG CONVENTION AND THE EU SHIP RECYCLING REGULATION

SECOND EDITION 2016

INTERNATIONAL CHAMBER OF SHIPPING

International Association of Classification Societies
BIMCO
International Association of Dry Cargo Shipowners
International Parcel Tankers Association
International Association of Independent Tanker Owners
Oil Companies International Marine Forum
International Transport Workers’ Federation

Supported by
Asian Shipowners’ Forum
European Community Shipowners’ Associations
These Guidelines on Transitional Measures on ship recycling represent the shipping industry’s commitment to adhere to the IMO Hong Kong Convention’s requirements, as far as practicably possible, in advance of the full implementation of a legally-binding global regime.

The first edition of these Transitional Measures was published in 2009, immediately after the adoption of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships by the International Maritime Organization (IMO).

This second edition has been updated and expanded to take account of subsequent guidance developed by IMO concerning the detailed implementation of the Hong Kong Convention. This edition also takes account of the European Union (EU) Ship Recycling Regulation of 2013. This has already entered into force and, when applied fully, will also be relevant to the recycling of end of life ships, including ships registered with non-EU flags.

Ultimate responsibility for conditions in ship recycling facilities must rest with the yards themselves and the authorities in those countries where the facilities are situated. However, the shipping industry fully accepts its responsibility to do what it can to minimise potential problems before the IMO Hong Kong Convention enters into force, and to help ensure that redundant tonnage is disposed of safely and in an environmentally sound manner.

Ship recycling undoubtedly can be a ‘green’ industry and employs a large workforce in developing countries, where the majority of recycling facilities are located. Almost nothing is wasted when a ship that has reached the end of its working life is recycled. But while the principles of ship recycling may be sound, the working practices and environmental standards in some recycling yards can sometimes still fall short of internationally acceptable standards.

Much supporting work to improve standards in recycling yards has occurred since the adoption of the IMO Convention, but the Convention itself has yet to enter into force, despite the determined efforts of the shipping industry to encourage ratification by governments. In the interim, therefore, these Transitional Measures represent the shipping industry’s commitment to adhere to the IMO Convention’s requirements, as far as practicably possible, to help ensure safe and environmentally sound recycling in advance of full implementation by governments of a legally-binding global regime.

These latest Transitional Measures have been updated by the Industry Working Group on Ship Recycling. These Guidelines will continue to be reviewed periodically as the IMO Convention is implemented by governments and more experience is gained.

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THE INDUSTRY WORKING GROUP ON SHIP RECYCLING

The adoption of the Hong Kong Convention marked the culmination of nearly 10 years of discussions by IMO Member States, including the principal ship recycling nations. This followed the initial development by the shipping industry of a Code of Practice on ship recycling which formed the basis of many of the principles underpinning the IMO requirements. This initial Code was developed by the Industry Working Group on Ship Recycling, established in 1999 and co-ordinated by the International Chamber of Shipping (ICS).

As well as ICS, the Group currently includes: BIMCO, the International Association of Classification Societies (IACS), Intercargo, the International Parcel Tankers Association (IPTA), Intertanko, the Oil Companies International Marine Forum (OCIMF) and the International Transport Workers’ Federation (ITF).

These latest Transitional Measures are also supported by the national shipowners' associations in Australia, Bahamas, Belgium, Canada, Chile, Cyprus, Denmark, Faroe Islands, Finland, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Korea, Kuwait, Liberia, Mexico, Netherlands, Norway, Portugal, Philippines, Russia, Singapore, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

They are also supported by the Asian Shipowners' Forum (ASF) and the European Community Shipowners’ Associations (ECSA), and have benefited from input from the International Hazardous Materials Association (IHMA).

PURPOSE AND SCOPE

Until the Hong Kong Convention enters into force, the way in which stakeholders implement the IMO requirements will be subject to some uncertainty. For the immediate future the quality of ship recycling facilities worldwide may continue to vary, and it may be difficult for shipping companies selling ships for recycling to obtain firm guarantees that standards are always being properly applied.

These Transitional Measures therefore seek to provide a mechanism for shipowners to ensure, to the greatest extent possible, that their ships will be recycled by facilities that are compliant with the IMO Convention standards and, if appropriate, the EU Regulation, while maintaining commercial competitiveness in established markets for the sale of redundant ships.

Adherence to these Transitional Measures should be regarded as a sign of good faith prior to the entry into force of the IMO Convention. It should be assumed that adherence will increasingly be required by flag States, and authorities in recycling States, as governments proceed to ratify the IMO Convention and as pressure is brought to bear through the EU Regulation. In view of this, and the technical and logistical implications of achieving compliance with the IMO Convention, it is strongly recommended that shipowners apply these Transitional Measures as soon as possible.

Section 1 of these Guidelines focuses on the preparation and maintenance of Inventories of Hazardous Materials, as required by the IMO Convention and the EU Regulation;

Section 2 of these Guidelines focuses on the measures that shipping companies are recommended to take when selling ships for recycling, during the transitional period before the IMO Convention enters into force.

Annexes A and B list materials to be included in the Inventory of Hazardous Materials as required by the IMO Convention and the EU Regulation.

Annex C explains the compliance dates for the EU Regulation.

Annex D contains a feedback form for shipowners to provide comments on their experiences in attempting to implement these Transitional Measures.
THE EU SHIP RECYCLING REGULATION

In addition to the requirements of the IMO Hong Kong Convention, ship operators need to be aware of the separate EU Ship Recycling Regulation, which is also relevant to ships flying non-EU flags.

The EU Ship Recycling Regulation entered into force at the end of 2013, and its requirements will be phased-in between 31 December 2015 and 31 December 2020 (see Annex C). ¹

The EU Regulation broadly corresponds with the provisions of the Hong Kong Convention. But some differences exist, as highlighted in the relevant sections of these Transitional Measures.

Many of the EU requirements are likely to come into effect before the IMO Convention, and shipowners with ships flagged in EU States, or whose vessels call at EU Ports, need to be aware of the implications and timelines.

The Regulation sets out requirements for EU Member States, certain recycling facilities and ships flying the flag of an EU State. Furthermore, the EU Regulation requires that any ship, regardless of its flag, calling at an EU port must have on board an Inventory of Hazardous Materials (IHM) approved by its flag State. Moreover, the IHM required by the EU Regulation is slightly different to that required by the IMO Convention (see 1.2 below and Annex B).

Significantly, the Regulation also sets out the eventual development of a ‘European List’ of approved facilities (see below) which yards located in non-EU States must also apply to join if they wish to recycle ships registered with EU flag States.

NB: The entry into force of the EU Regulation means that recycled ships are excluded from the separate EU Waste Shipment Regulation. ² However, until the European List of approved yards is established, some environmental authorities in EU Member States may continue to prohibit the recycling of vessels in non-OECD countries if they are departing from EU ports, including ships registered with non-EU flags.

‘EUROPEAN LIST’ OF APPROVED SHIP RECYCLING FACILITIES

An important aspect of the EU regime is the development of a ‘European List’ of ship recycling facilities that have demonstrated compliance with the EU Regulation. Recycling facilities in the EU that have been approved by the relevant national ‘Competent Authority’ will automatically be included on the List, while facilities located in non-EU States will have to apply for inclusion, in accordance with an audit and approval process being developed by the European Commission. Once the List has been established, ships flying the flag of an EU Member State will only be able to be sold for recycling to facilities that are included on the List.

The European List will be one of the main drivers for the enforcement of the EU Regulation, and will come into effect no later than 31 December 2018 or, if earlier, as soon as the approved yards on the List represent a combined maximum recycling capacity of not less than 2.5 million light displacement tonnes (LDT). Shipowners operating end of life ships under the flag of an EU Member State will therefore be required to sell them to a facility on the List in the near future. Owners of such vessels will need to monitor developments with respect to the List and the application dates of the EU Regulation, and factor them into their operations during that period of time.

¹ Regulation (EU) No 1257/2013
² Regulation (EC) No 1013/2006
SECTION 1
INVENTORIES OF HAZARDOUS MATERIALS (IHM)

1.1 GENERAL INTRODUCTION

The Hong Kong Convention and the EU Regulation require shipowners to develop Inventories of Hazardous Materials which indicate the location and approximate quantities of certain hazardous materials found on board their vessels. IMO has also developed definitive ‘Guidelines for the Development of the Inventory of Hazardous Materials’ on which this industry guidance is based. Whilst the IMO Convention and the EU Regulation are closely aligned in terms of their IHM requirements, there are certain differences in both detail and application which are described below.

The IHM is key to the safe and environmentally sound recycling of a ship, as it provides information on the hazardous materials that will be encountered during recycling at the end of a ship's life, and which will require appropriate handling and downstream management.

The provision of an IHM during the sale of a ship for recycling is likely to be increasingly required as States and stakeholders move towards compliance with the Convention and where applicable the EU Regulation. It is therefore strongly recommended that, as soon and as far as possible, shipowners develop inventories which comply.

Inventories are not only essential for safe and environmentally sound recycling, but they provide benefits with respect to the maintenance and operation of a ship. The development of an IHM will not only help to ensure compliance with the Convention and the EU Regulation, but can also aid compliance with existing SOLAS, ISM Code and Safety Management System requirements. The services of IHM service providers can be called upon to offer help and advice at any stage in the development of an IHM, and Recognized Organizations can subsequently approve and verify the information.

The accuracy of an inventory is likely to influence the sale of a ship for recycling, and incompleteness or significant inaccuracy could result in the refusal of the ship at delivery and/or a renegotiation on the price. However, it is equally important to note that inventories are only intended to be indicative and cannot be an exhaustive list of every instance of hazardous materials on board ships. What follows therefore is guidance for shipowners on developing practical inventories, to the best possible standard, to meet the requirements of the Hong Kong Convention during the transitional period and of the EU Regulation as appropriate.

1.2 EU SHIP RECYCLING REGULATION AND THE IHM

The EU Regulation requires that ships develop inventories in accordance with the Hong Kong Convention. However, the EU list of materials to be included in the inventory contains two additional materials to those required by the IMO Convention.

The IMO and EU lists are contained in Annexes A and B respectively.

The EU Regulation requires that ships flying a flag of an EU Member State develop an IHM in accordance with the Regulation. Ships flying the flag of a non-EU State which call at EU ports must have on board an inventory which complies, as far as practicable, with the Regulation's requirements for existing ships. Such inventories should be accompanied by a statement of compliance issued by the relevant authorities of the country whose flag the ship is flying or an organisation authorised by them. Non-EU ship operators should therefore liaise with their flag State on how they intend to fulfil this requirement. Information on the dates when the EU requirements for the IHM will apply are provided in the Table at Annex C.

1.3 ROLE OF CLASSIFICATION SOCIETIES AND IHM SERVICE PROVIDERS

Although it is possible for shipowners to develop inventories using their own resources, it is recommended that they use classification societies or specialist IHM service providers, many of which already offer support and related services, including options for follow-up surveys to ensure that the document is regularly updated.

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3 Resolution MEPC.269(68)
Using classification societies (particularly those authorised by flag States to approve inventories) or other IHM service providers, should help to ensure that inventories are prepared and maintained in accordance with the IMO Convention and/or the EU Regulation and facilitate their approval by the Competent Authority. This might be valuable during sale negotiations when it will be necessary to demonstrate that the inventory meets the terms of the IMO Convention or EU Regulation, including during any interim period prior to the IMO Convention's entry into force. Where an IHM service provider is used to develop an inventory, the shipowner should ensure that the service provider can demonstrate that the steps described below are followed, in order to guarantee that the process and final product meet the requirements of the IMO Convention and/or the EU Regulation.

There is no mandated format for an IHM. Although a model is provided in the annexes to the relevant IMO Guidelines, a variety of formats are used throughout the market. Differences in format should not be an obstacle to the development or approval of IHMs, provided they comply with the requirements of the IMO Convention and/or the EU Regulation.

1.4 CREATING AN IHM

The development and maintenance of the IHM is the key requirement for shipowners under the Hong Kong Convention and EU Regulation. The requirement will apply to new builds and existing ships, but will have different implications for the owner in each case.

In the case of new ships, it is anticipated that work on the IHM will be undertaken by the shipbuilder during construction and that this process should consequently result in a more thorough IHM being produced than for existing ships. Shipbuilders have control of the supply chain and are already required to avoid, or restrict, the use of Hong Kong Convention ‘Table A’ materials (asbestos, PCBs, ozone depleting substances and TBT paints) in accordance with SOLAS, MARPOL and Anti Fouling Systems (AFS) Convention requirements. In addition, for ships flying EU flags, the use of Perfluorooctane sulfonic acid (PFOS) will be prohibited or restricted in accordance with Annex I of the EU Ship Recycling Regulation. It is therefore strongly recommended that the requirement for an IHM is included in the newbuilding contract.

It may be more difficult to ensure such thoroughness for existing ships as access to certain areas will be often difficult or impossible, and specific information about installations may not be available. However, the development of inventories for existing ships could also draw on existing management and compliance procedures. For example, a shipowner could consider developing IHMs for existing ships as part of its internal Safety Management System, utilising its internal asbestos risk management process, in accordance with the relevant IMO Maritime Safety Committee (MSC) Circulars.

1.4.1 Part I of the IHM

During the lifetime of a ship it is only necessary to develop and maintain Part I of the inventory, with Parts II and III requiring completion prior to sale for recycling.

Part I is concerned with materials contained in the ship’s structure or fixed equipment, and the materials to be included are listed in Tables A and B (see Annex A to these Guidelines). The development of Part I of the IHM consists of several phases, each of which facilitates the next step in the process, enabling structured planning, sampling and compilation of all the relevant information as described below.

1.4.2 Threshold Values, Exemptions and Bulk Listings

Threshold values represent a limit above which materials must be listed in the inventory. They are the value against which samples will be tested (see 1.4.6 below). Where materials are present above that threshold they will need to be recorded in the IHM.

Exemptions apply to materials which do not need to be listed even if they are present at a level above the threshold value. In practice, exemptions will apply to hazardous materials inherent in solid metals or metal alloys used in general construction and printed wiring boards, recognising that electrical and electronic equipment will need to be included in either Part I or III of the IHM, depending on whether it is fixed or loosely fitted.

Bulk listings can be applied to certain items which contain hazardous materials above the threshold value, but which are found in great numbers on board the ship e.g. light bulbs. In these cases the item should be listed, detailing the hazardous material present, and a single listing provided of the numbers of the item on board.
1.4.3 Collection of Necessary Information

The first stage of the development of an IHM involves the collection of available information relevant to the ship's construction. In the case of new builds this will be provided by the Material Declaration (MD) and Supplier's Declaration of Conformity (SDoC) forms, provided by the suppliers of parts and equipment delivered to the shipyard.

The remainder of this section relates to existing ships, where the process consists of a documentation review, visual checks and, if necessary, sampling checks. The process draws on a number of potential sources such as maintenance, conversion and repair documents, certificates, manuals, ship plans and drawings, technical specifications, material declarations, and equivalent IHMs from sister ships. It should be recognised that the availability of information about a ship will vary depending on its previous operation e.g. age, number of previous owners, number of changes of class, etc.

1.4.4 Assessment of Information

Once information has been collected it should be assessed, covering all materials listed in Table A, to identify locations where they may be present on the ship, whilst materials in Table B should be listed as far as practicable (see Annex A). The results of this assessment should be used to develop the visual/sampling check plan.

1.4.5 Preparation of Visual/Sampling Check Plan

The visual/sampling check plan should be developed on the basis of the assessment of information collected in the first step of the inventory's development and the expertise of the person/persons developing the inventory. While spot checks and sampling are recommended for new buildings, the visual/sampling check plan is predominantly for the development of inventories for existing ships. It is recommended that a suitably qualified hazardous materials expert assists with the visual/sampling check plan, as this will form the basis of the on board checks and sampling of materials which will, in turn, indicate the location and approximate quantity of hazardous materials throughout the ship's structure and equipment. In some cases classification societies may request approval of the visual/sampling check plan before any on board inspection or sampling is carried out.

Visual/sampling checkpoints should focus on areas where:

- The presence of materials from Table A is likely, either on the basis of documentary evidence or the expert opinion of the person(s) developing the plan;
- Documentation is not specific as to whether materials are present; and
- Materials of uncertain composition were used.

The visual/sampling check plan should be based on the following three lists:

- **List of equipment, system and/or area for visual check.** This will contain the equipment, systems and/or areas on board where the presence of hazardous materials can be established by a visual check without the need for further sampling or analysis. Practically, these will be areas where the presence of hazardous materials is detailed on the equipment, etc. itself, or where it is identified during the documentation review. In cases where a visual check does not provide a clear result then a decision should be made as to whether to apply a sampling check, as detailed in the IMO Guidelines.

- **List of equipment, system and/or area for sampling check.** This will contain equipment, systems and/or areas where the presence of hazardous materials cannot be specified by documentary or visual analysis, and will thus require sampling to verify whether they are present or not. In order to take a practical approach, the IMO has developed example indicative lists to help identify the equipment, system and/or area on board that is presumed to contain hazardous materials.

- **List of equipment, system and/or area classed as ‘potentially containing Hazardous Material’.** This will contain the equipment, systems and/or areas on board which are considered potentially to contain hazardous materials without a sampling check having been conducted. This classification should be used for locations which are inaccessible for visual/sampling check, or where accessing them could compromise the safety and operational efficiency of the ship, but which the previous analysis or expert opinion have deemed likely to contain hazardous materials. This list would also contain locations where indicative sampling has determined a likelihood of the presence of hazardous materials e.g. the same or similar flanges throughout a ship to one which has been sampled and found to contain asbestos.
1.4.6 On Board Visual/Sampling Check

The on board visual/sampling check is the physical process of verifying the presence or absence of hazardous materials throughout the ship and its equipment, and it should be carried out in line with the visual/sampling check plan developed as stage two of the process.

When a sampling check is carried out, samples should be taken and the sample points clearly marked on the ship plan and the results referenced. Sampling checks should be carried out by a suitably qualified hazardous materials expert. It will be necessary to test samples in an accredited laboratory. Materials of the same kind may be sampled in a representative manner, e.g. a single gasket suspected of containing a hazardous material can be sampled and used as being representative of other similar gaskets throughout the ship.

Samples can be tested by a variety of methods. Indicative or field tests might be used when:

- The likelihood of a hazard is high;
- The test is expected to indicate that the hazard exists; and
- The sample is being tested by ‘specific testing’ to show that the hazard is present.

Indicative or field tests are quick and inexpensive but cannot be accurately reproduced or repeated and, as such, can only be indicators of the presence of hazardous materials rather than definitive evidence of their presence.

Specific testing should be used in all other cases and will avoid the potential for dispute since the tests are repeatable and can demonstrate definitively whether a hazard exists or not. Specific tests should be carried out by a suitably accredited laboratory, working to international standards such as ISO 17025 or their equivalent, which will provide a written report that can be relied upon by all parties.

1.4.7 Preparation of Part I of the IHM

When the visual/sampling check determines that equipment, system and/or an area is classed as either ‘containing Hazardous Material’ or ‘potentially containing Hazardous Material’ then it should be listed in Part I of the IHM. As it is probable that certain materials will have been tested and found to be free of hazardous materials, it is recommended that the results of any sampling are provided in a separate report and attached to the IHM.

1.4.8 Diagram of the Location of Hazardous Materials On Board a Ship

A diagram showing the location of the samples taken and the hazardous materials identified should be developed in order to help ship recycling facilities recycle the ship.

1.5 MAINTENANCE DURING A SHIP’S LIFECYCLE

Part I of the IHM should be maintained throughout the life of the ship, and it is recommended that companies put in place measures to ensure that new installations of equipment, repairs and refittings are accompanied by a Material Declaration (MD) and the Supplier’s Declaration of Conformity (SDoC), as provided by the suppliers of parts and equipment delivered.

Establishing systems to ensure the accurate maintenance of the inventory and associated documentation when changes are made to the ship will minimise the associated administrative burden for the company. Shipowners should therefore designate a person responsible for maintaining the inventory or inventories either ashore or on board the ship. This designated person should establish and supervise a system to ensure that the IHM is updated, including recorded dates of changes and new or deleted entries, signing off on any recorded changes. Furthermore, documents related to the IHM, such as MDs or copies of relevant certificates, should be provided by the shipowner as required for the survey or sale of the ship.

Where machinery or equipment is added then the inventory should be updated according to the requirements for new ships, though such updating is not necessary where identical parts or coatings are installed or applied. Such maintenance will ensure that a comprehensive IHM can be provided at future surveys (see 1.7 below). This will help to avoid the need for further investigation and minimise potential delays due to querying of the inventory by Port State Control officers.
1.6 COMPLETION PRIOR TO SALE FOR RECYCLING

Once a shipowner has decided to sell a ship for recycling, it will be necessary to complete all three parts of the inventory in order for the ship recycling facility to develop the ship recycling plan. It should be recognised that the ship will continue to be operated up to the moment of delivery, and it will be necessary to do this in a manner that minimises fuel oil and wastes remaining on board. Such actions will help ensure easier safety and environmental protection, and that the highest value possible is achieved from the sale of the ship. Alternatively, where materials in the list have a significant on-sale value, such as remaining bunkers, then this should be factored into the value of the ship.

1.6.1 Part II of the IHM

Any wastes listed in Table C (Potentially hazardous items) of Appendix 1 to the IMO Convention which are to be delivered with the ship should be estimated, and their approximate quantities and locations should be listed in Part II of the IHM.

1.6.2 Part III of the IHM

Part III of the IHM contains three different sections:

- Stores;
- Liquids and gases sealed in the ship’s machinery and equipment; and
- Regular consumable goods.

Any stores which are to be delivered with the ship and are required to be listed in Part III of the inventory should be listed in terms of the unit (e.g. capacity of cans and cylinders), quantity and location on board.

The approximate location and quantity of liquids and gases integral to ship’s machinery and equipment listed in Table C of Appendix 1 should also be listed in Part III. It should be noted that small amounts of lubricating oil, anti-seize compounds and grease applied to or injected into machinery and equipment to maintain normal performance are exempted from inclusion. The quantity of liquids and gases listed in Table C of Appendix 1 to the IMO Convention (see Annex A) which are required for normal operation, including the related pipe system volumes, should be prepared and documented at the design and construction stage, and this information should continue to be maintained throughout the life of the ship. This information should form the basis for approximations of the relevant sections of Part III of the IHM.

Finally, regular consumable goods potentially containing hazardous materials (e.g. televisions) should be listed with a general description including the name of the item, manufacturer, quantity and location.

1.7 SURVEY AND CERTIFICATION

The Hong Kong Convention and the EU Regulation require the survey and certification of the IHM. Shipowners are advised to be prepared for these procedures, particularly the final survey, which may begin to be implemented by stakeholders and States prior to entry into force of the IMO Convention.

The survey and certification process throughout the life of a ship will occur as follows:

- The initial survey takes place prior to the ship being put into service for new builds, or prior to the issuing of the International Certificate on Inventory of Hazardous Materials for existing ships. After the initial survey, the International Certificate on Inventory of Hazardous Materials can be issued.
- The renewal survey takes place at intervals specified by the flag Administration, but not exceeding five years. The renewal survey verifies that Part I of the IHM complies with the requirements of the IMO Convention, and in effect ensures that any changes that have occurred since the previous survey have been properly recorded.
- The additional survey is optional and may be made at the request of the shipowner. It can either be general or partial depending on what the shipowner wishes to verify with respect to the inventory. The additional survey can be used to ensure that changes to the IHM due to repairs or refittings are verified as soon as they have taken place, rather than waiting for the renewal survey.
- The final survey takes place prior to the ship being taken out of service and before the beginning of recycling. The final survey verifies the compliance of the completed IHM, including Parts II and III; that the Ship Recycling Plan properly reflects the information contained in the IHM; and that the ship recycling facility holds a valid authorisation in accordance with the IMO Convention.
SECTION 2
SELLING A SHIP FOR RECYCLING

2.1 OVERVIEW

The Hong Kong Convention requires ships to be sold to recycling facilities that meet IMO standards and which have been approved by the flag State and by the authorities in the ship recycling State. The EU Regulation similarly imposes requirements for EU shipowners selling ships for recycling, in particular that they use yards included on the European List of approved ship recycling facilities, to be compiled by the European Commission by 31 December 2016 or sooner.

The goal of these Transitional Measures is to create a means of sale that combines legal integrity with commercial flexibility, and encourages the use of safe and environmentally sound ship recycling facilities without distorting fair competition whilst industry waits for the entry into force of the impending recycling regimes.

Use of a standard contract, such as BIMCO’s RECYCLECON, should help parties adapt to the impending regime, providing a suitably balanced and commercially flexible contract of sale that enshrines the principles of the Hong Kong Convention.

The following guidance describes how, during the transitional period before the entry into force of the Convention, shipowners can ensure when selling ships for recycling that they fulfil the requirements to the furthest possible extent.

2.2 METHODS OF SALE

There are two routes most commonly taken by a shipowner when selling a ship for recycling: either to contact recycling facilities directly; or to use the services of a broker or cash buyer. Alternatively, services are emerging whereby specialist service providers will assist in selecting a yard, offer shipboard preparations for recycling, and provide supervision during the recycling of a vessel.

Direct sale to recycling facilities cuts out the ‘middle man’ and can, at least in theory, be a route to ensuring a better return from the sale. However, there are a number of factors which make this route viable only for the largest of companies. Direct sales require a detailed knowledge of the recycling market, and specific information about the recycling country, which the majority of shipowners are unlikely to possess. The need to check a number of facilities for fitness and compliance with the Convention also requires considerable in-house support and background knowledge of recycling processes which is simply not available to many companies. Furthermore, certain financial practices such as payment via a letter of credit may prohibit the option of direct sales in certain recycling States.

Selling directly to a recycling facility is therefore likely to be an option only for larger shipping companies, with sufficient in-house capacity to deal with the process. The route therefore taken in the vast majority of sales of end of life ships will be through a cash buyer who will purchase the vessel, either during its final voyage or at the point of handover to the recycling facility.
Under the Hong Kong Convention and the EU Regulation cash buyers will have the same responsibility for the ship as a shipowner, and on entry into force will therefore be subject to the same requirements and liabilities. The actual effect this will have remains to be seen, and it is probable that liabilities and responsibilities will be shared, i.e. the shipowner prepares the inventory for final survey whilst the cash buyer negotiates with a facility on the owner's behalf and takes ownership at the point of delivery. There is a strong possibility that the cash buyer will be increasingly important as a facilitator as the industry moves towards compliance with the IMO Convention, matching vessels to yards and assisting shipowners in identifying suitable recycling facilities for their ships.

Cash buyers have considerable knowledge of the recycling industry, and their familiarity with recycling facilities should increase the likelihood of them finding a suitable yard for an owner's vessel. An objective of this guidance is to provide shipowners with a means of utilising this knowledge to their best advantage in compliance with the Hong Kong Convention and the EU Regulation.

2.3 ENSURING A RECYCLING FACILITY IS COMPETENT

Until the Hong Kong Convention enters into force and legally defines what constitutes an acceptable ship recycling facility (or the European List of approved yards is sufficiently populated to provide a viable market) the ability of shipowners to identify acceptable yards and fulfil their obligations will be determined by how quickly States ratify the Convention, and how rapidly detailed information about recycling capacity that meets IMO standards can be disseminated throughout the industry. However, if shipowners apply the measures recommended below, they should be able to obtain some guarantee that a facility is competent and has sufficient capacity to handle a vessel in a safe and environmentally sound manner.

The mechanism described below applies certain practical provisions in the context of a contract of sale – with either a cash buyer or yard – thereby placing liabilities on the responsible parties at the appropriate point in the proceedings. This should give a legal weight to proceedings and encourage parties to live up to their responsibilities. This mechanism covers the most basic provisions required to ensure safe ship recycling.

It is recommended that in cases where recycling facilities refuse to accept these responsibilities then an alternative buyer should be sought.

2.3.1 Methods of Sale: Cash Buyer Versus Direct to Yard

The method of sale chosen by a shipowner will affect how the measures described below are applied. In cases where a shipowner contacts a facility directly, the contractual obligations will normally be shared by the yard and shipowner, as appropriate, without an intermediary.

Where a cash buyer is used, it is likely that the contract will require them to accept certain liabilities based on the accuracy of information about the yard they select in accordance with the shipowner's demands. The extent of this liability will vary from case to case.

2.3.2 Ship Recycling Plan (SRP)

The principal requirement which a shipowner should include within the contract of sale is that the recycling yard to which the ship is to be sold should develop a Ship Recycling Plan (SRP) for the specific vessel in question. Where yards will not develop an SRP for the specific vessel an alternative buyer should be sought.

In order to assist with the development of such plans, shipowners should provide a completed IHM, including estimates of stores and operationally generated wastes that will be present at the time of delivery (see Section 1 above). Where available, copies of plans and ships drawings, and other appropriate records of alterations to the structure of the ship relevant to its present condition, should also be provided in order to ensure that the resulting SRP is as accurate and comprehensive as possible.

Ship recyclers should develop an SRP taking into account the information provided by the shipowner and detail procedures and measures relating to:

- Preparatory work to be carried out at a location other than the recycling facility, e.g. pre-treatment, identification of potential hazards and removal of stores;
- Procedures that will be followed in an on board check of the vessel on arrival, to identify any potential environmental or safety issues;
- Information on how the type and amount of hazardous materials will be managed;
• How the facility will establish, maintain and monitor ‘safe for entry’ and ‘safe for hot work’ procedures;

• The dismantling sequence of the ship, taking into account cutting operations and locations of hazardous materials;

• Other ship specific processes and/or procedures that will be necessary to recycle the ship which are not covered in the Ship Recycling Facility Plan (SRFP) (see 2.3.4.1 below); and

• A copy of the Declaration of Authorisation for Ship Recycling where the State has ratified the Hong Kong Convention; or the relevant authorisation under the EU Regulation where applicable; or an equivalent approval by the Competent Authority.

Further guidance on specific sections of the SRP is provided below.

When a shipowner has received a completed plan from the ship recycling facility, it should be checked to ensure that the details of the hazardous materials which the facility can manage properly match those described in the IHM. If any discrepancies are found between the SRP and the IHM, the shipowner should identify these for action by the recycling facility.

2.3.2.1 Prior Removal of Hazardous Materials

While it is always recommended to select a facility that can demonstrate a capacity and capability sufficient to handle all materials listed in a ship’s IHM, there may be occasions where this is not possible and some prior removal of hazardous substances will be required before delivery. Such requirements should be clearly detailed in the SRP so that they can be documented and authorised at the final survey.

Where an SRP requires the prior removal of hazardous substances, it should be ensured that their removal does not result in a consequential hazard to the ship’s crew or compromise safe operations. Furthermore, prior removal should be conducted at a location where the necessary work can be undertaken in safe and environmentally sound circumstances in accordance with the relevant regulations.

2.3.2.2 ‘Safe for Entry’ and ‘Safe for Hot Work’

National legislation in a number of recycling States already requires that chemical and oil tankers are delivered with cargo spaces cleaned for ‘gas freeing’, and this requirement has been incorporated into the IMO Convention.

It is recommended that ships are cleaned to a condition which will allow ‘gas freeing’ procedures to begin. The recycling facility should be made aware of this fact through the inclusion of a clause in the contract of sale. Shipowners should also seek assurances, again through clauses in the contract, that the recycling facility will ensure that all cargo holds and bunker tanks will indeed be ‘gas free’ for hot work prior to the commencing of cutting throughout the demolition process. This activity should also be included in the SRP.

Where recycling facilities do not provide necessary assurances with regard to ‘gas freeing’ an alternative buyer should be sought.

2.3.3 Certification and Flag State Reporting

The Hong Kong Convention and the EU Regulation enforce a survey and certification process under the oversight of State authorities to ensure compliance and transparency throughout the sale and recycling of a ship. The extent to which a shipowner can fulfil these requirements may depend on when the Hong Kong Convention enters into force or if it is registered with a flag State that has ratified the Convention and is pre-empting its entry into force. For EU flag ships, the process is likely to come into effect on a shorter timescale, with owners reporting to their flag States and being required only to use facilities on the ‘European List’.

Despite this uncertainty, there are clear benefits for shipowners who obtain confirmation that they have acted in accordance with the applicable terms of the Convention or EU Regulation and who receive an acknowledgment of this from their flag State.

To facilitate such an acknowledgement, shipowners should consider requesting classification societies to confirm – to the extent they will be required to do so under the Convention – that the recommendations of these Transitional Measures have been followed to the furthest extent possible. This confirmation should be deposited with the flag State. This will not only demonstrate goodwill on the part of the shipping company, but will also assist in the resolution of any disputes.

2.3.4 Other Factors to Consider

The actions described above are the minimum in terms of what shipowners should apply during sales of their vessels, and the liabilities which they should be prepared to accept within that process as a matter of course. However, the transition towards the full entry into force of the IMO Convention and the EU Regulation is likely to see other actions become feasible over time as
the recycling industry conforms to the new regulatory standard, and more nations ratify. The measures addressed below will not ordinarily be within the control of the shipowner, nor will they be applicable to every sale, and will depend on a number of factors such as the availability of in-house expertise and the impact of economic conditions on the recycling market.

2.3.4.1 Ship Recycling Facility Plan (SRFP)

The Convention and EU Regulation require recycling facilities to possess an approved Ship Recycling Facility Plan (SRFP) which will provide a comprehensive management system to ensure that ships are recycled in a safe and environmentally sound manner.

The impact of this requirement is already being felt, as yards are beginning to develop and implement SRFPs, particularly those applying for inclusion on the ‘European List’, and other States may also begin requiring their development in the near future as they move toward ratification of the IMO Convention. The effect of ship recyclers developing plans will become apparent to shipowners as sales for recycling will begin to adhere more closely to the IMO Convention requirements and, over time, this should make the process of selecting a yard simpler as information on the respective competencies of a facility will become publically available. At present, however, it is not known how many facilities possess such a plan and, if they do, the extent to which they comply fully with either the Convention or the EU Regulation.

Until a significant number of States have begun to authorise their facilities in line with the Convention and EU Regulation, obtaining confirmation that a Ship Recycling Facility Plan exists will be less important for shipowners than obtaining firm guarantees in the contract of sale with respect to the Ship Recycling Plan and ‘gas freeing’ (see above). However, where shipowners are able to do so, confirmation of the existence of a Ship Recycling Facility Plan, and its constituent subsidiary plans as described below, will serve as an indicator of the competence of the facility and help develop a picture of available global capacity throughout the transitional period.

The IMO Guidelines for Safe and Environmentally Sound Ship Recycling provide detailed recommendations for a ship recycling facility's SRFP, and a facility's awareness and effective implementation of the IMO Guidelines will be a firm demonstration to a shipowner of that facility's capability, as will approval of an SRFP by an independent third party. Similarly, facilities authorised by a reputable accreditation body to international standards (such as ISO 9001, ISO 14001, OHSAS 18001, or the ISO 30000 series) should be considered, especially where the international regulatory framework is yet to be comprehensively applied by the State.

A Ship Recycling Facility Plan should contain subsidiary plans and sections specifically addressing the areas highlighted below. The degree of detail provided should serve as an indication of the suitability of the facility to receive a ship and recycle it in a safe and environmentally sound manner. This should include information on:

- **Facility management**, including company information, training programmes, worker management and records management;
- **Facility operation**, including information about the facility, its permits, licences and certification, procedures for accepting ships, procedures for developing the SRP, vessel arrival management, the methodology for recycling and reporting on completion;
- **Worker safety and health compliance approach**, including information on policies for ensuring worker health and safety, identification of key safety and health personnel and measures to prevent adverse effects to human health; and
- **Environmental compliance approach**, including information on environmental monitoring, management of hazardous materials during recycling, environmentally sound management of hazardous materials by type and, prevention of adverse effects to the environment.

2.3.4.2 State Authorisation

The easiest means for a shipowner to identify whether a facility is acceptable will be to check whether the recycling State has ratified the Convention and authorised the facility as being in compliance, or whether the facility appears on the European List of approved yards. The owner's ability to identify acceptability on the basis of approval will increase as governments ratify the IMO Convention and as yards apply for inclusion on the ‘European List’, but it may be some time before sufficient authorised capacity exists for shipowners to act in full accordance with the Convention requirements. It is hoped that recycling States which ratify the IMO Convention in the interim will authorise their facilities and where such approved facilities are available the recycling State will enforce compliance with the Convention or EU Regulation throughout the sale process.

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4 Resolution MEPC.210(63)
FEEDBACK

It is emphasised that these Transitional Measures are a ‘live’ document which will be reviewed in light of industry experience of attempting to apply the IMO Convention requirements on a voluntary basis during the transitional period before entry into force.

It is likely that further measures by shipowners will become feasible as the market moves towards compliance. It is also possible that some measures may not prove as practicable as first imagined and may therefore require further refinement.

Shipowners are therefore requested to provide comments on their experiences in attempting to implement these Transitional Measures, particularly the ability and willingness of recyclers and cash buyers to meet them, as well as experiences of State enforcement. Please complete the feedback form at Annex D, returning it to the Industry Working Group c/o ICS.

LIST OF ANNEXES

Annex A  Hong Kong Convention List of Materials to be included in the IHM, including Threshold Values
Annex B  European Union Ship Recycling Regulation List of Materials to be included in the IHM
Annex C  Compliance dates for the European Regulation
Annex D  Feedback Form
ANNEX A
HONG KONG CONVENTION LIST OF MATERIALS TO BE INCLUDED IN THE IHM, INCLUDING THRESHOLD VALUES (APPENDIX 1 OF RESOLUTION MEPC.269(68) ADOPTED 15 MAY 2015)
APPENDIX 1

ITEMS TO BE LISTED IN THE INVENTORY OF HAZARDOUS MATERIALS

Table A – Materials listed in appendix 1 of the Annex to the Convention

<table>
<thead>
<tr>
<th>No.</th>
<th>Materials</th>
<th>Inventory</th>
<th>Threshold value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Part I</td>
<td>Part II</td>
</tr>
<tr>
<td>A-1</td>
<td>Asbestos</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>A-2</td>
<td>Polychlorinated biphenyls (PCBs)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>A-3</td>
<td>Ozone depleting substances</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFCs</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halons</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other fully halogenated CFCs</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carbon tetrachloride</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,1,1-Trichloroethane (Methyl chloroform)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydrochlorofluorocarbons</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydrobromofluorocarbons</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methyl bromide</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bromochloromethane</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>A-4</td>
<td>Anti-fouling systems containing organotin compounds as a biocide</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

\(^4\) In accordance with regulation 4 of the Convention, for all ships, new installation of materials which contain asbestos shall be prohibited. According to the UN recommendation "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" adopted by the United Nations Economic and Social Council's Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (UNSCEGHS), the UN's Sub-Committee of Experts, in 2002 (published in 2003), carcinogenic mixtures classified as Category 1A (including asbestos mixtures) under the GHS are required to be labelled as carcinogenic if the ratio is more than 0.1%. However, if 1% is applied, this threshold value should be recorded in the Inventory and, if available, the Material Declaration and can be applied not later than five years after the entry into force of the Convention. The threshold value of 0.1% need not be retroactively applied to those Inventories and Material Declarations.

\(^5\) In accordance with regulation 4 of the Convention, for all ships, new installation of materials which contain PCBs shall be prohibited. The Organization set 50 mg/kg as the threshold value referring to the concentration level at which wastes, substances and articles containing, consisting of or contaminated with PCB are characterized as hazardous under the Basel Convention.

\(^6\) "No threshold value" is in accordance with the Montreal Protocol for reporting ODS. Unintentional trace contaminants should not be listed in the Material Declarations and in the Inventory.

\(^7\) This threshold value is based on the Guidelines for brief sampling of anti-fouling systems on ships (resolution MEPC.104(49)).
Table B – Materials listed in appendix 2 of the Annex to the Convention

<table>
<thead>
<tr>
<th>No.</th>
<th>Materials</th>
<th>Inventory</th>
<th>Threshold value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Part I</td>
<td>Part II</td>
</tr>
<tr>
<td>B-1</td>
<td>Cadmium and cadmium compounds</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-2</td>
<td>Hexavalent chromium and hexavalent chromium compounds</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-3</td>
<td>Lead and lead compounds</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-4</td>
<td>Mercury and mercury compounds</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-5</td>
<td>Polybrominated biphenyl (PBBs)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-6</td>
<td>Polybrominated diphenyl ethers (PBDEs)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-7</td>
<td>Polychlorinated naphthalenes (more than 3 chlorine atoms)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-8</td>
<td>Radioactive substances</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>B-9</td>
<td>Certain shortchain chlorinated paraffins (Alkanes, C10-C13, chloro)</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

⁸ The Organization set this as the threshold value referring to the Restriction of Hazardous Substances (RoHS Directive 2011/65/EU, Annex II).

⁹ The Organization set 50 mg/kg as the threshold value referring to the concentration level at which wastes, substances and articles containing, consisting of or contaminated with PBB are characterized as hazardous under the Basel Convention.

¹⁰ The Organization set 50 mg/kg as the threshold value referring to the concentration level at which wastes, substances and articles containing, consisting of or contaminated with PCN are characterized as hazardous under the Basel Convention.

¹¹ All radioactive sources should be included in the Material Declaration and in the Inventory. *Radioactive source* means radioactive material permanently sealed in a capsule or closely bonded and in a solid form that is used as a source of radiation. This includes consumer products and industrial gauges with radioactive materials. Examples are listed in appendix 10 of Res.MEPC.269(68).

¹² The Organization set 1% as the threshold value referring to the EU legislation that restricts Chlorinated Paraffins from being placed on the market for use as substances or as constituents of other substances or preparations in concentrations higher than 1% (EU Regulation 1907/2006, Annex XVII Entry 42 and Regulation 519/2012).
<table>
<thead>
<tr>
<th>No.</th>
<th>Properties</th>
<th>Goods</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-1</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Kerosene</td>
</tr>
<tr>
<td>C-2</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>White spirit</td>
</tr>
<tr>
<td>C-3</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Lubricating oil</td>
</tr>
<tr>
<td>C-4</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Hydraulic oil</td>
</tr>
<tr>
<td>C-5</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Anti-seize compounds</td>
</tr>
<tr>
<td>C-6</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Fuel additive</td>
</tr>
<tr>
<td>C-7</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Engine coolant additives</td>
</tr>
<tr>
<td>C-8</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Antifreeze fluids</td>
</tr>
<tr>
<td>C-9</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Boiler and feed water treatment and test re-agents</td>
</tr>
<tr>
<td>C-10</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>De-ioniser regenerating chemicals</td>
</tr>
<tr>
<td>C-11</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Evaporator dosing and descaling acids</td>
</tr>
<tr>
<td>C-12</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Paint stabilizers/rust stabilizers</td>
</tr>
<tr>
<td>C-13</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Solvents/thinners</td>
</tr>
<tr>
<td>C-14</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Paints</td>
</tr>
<tr>
<td>C-15</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Chemical refrigerants</td>
</tr>
<tr>
<td>C-16</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Battery electrolyte</td>
</tr>
<tr>
<td>C-17</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Alcohol, methylated spirits</td>
</tr>
<tr>
<td>C-18</td>
<td>Gas</td>
<td>Explosives/inflammables</td>
<td>Acetylene</td>
</tr>
<tr>
<td>C-19</td>
<td>Gas</td>
<td>Explosives/inflammables</td>
<td>Propane</td>
</tr>
<tr>
<td>C-20</td>
<td>Gas</td>
<td>Explosives/inflammables</td>
<td>Butane</td>
</tr>
<tr>
<td>C-21</td>
<td>Gas</td>
<td>Explosives/inflammables</td>
<td>Oxygen</td>
</tr>
<tr>
<td>C-22</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>CO$_2$</td>
</tr>
<tr>
<td>C-23</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>Perfluorocarbons (PFCs)</td>
</tr>
<tr>
<td>C-24</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>Methane</td>
</tr>
<tr>
<td>C-25</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>Hydrofluorocarbon (HFCs)</td>
</tr>
<tr>
<td>C-26</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>Nitrous oxide (N$_2$O)</td>
</tr>
<tr>
<td>C-27</td>
<td>Gas</td>
<td>Green House Gases</td>
<td>Sulfur hexafluoride (SF$_6$)</td>
</tr>
<tr>
<td>C-28</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Bunkers: fuel oil</td>
</tr>
<tr>
<td>C-29</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Grease</td>
</tr>
<tr>
<td>C-30</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Waste oil (sludge)</td>
</tr>
<tr>
<td>C-31</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Bilge and/or waste water generated by the after-treatment systems fitted on machineries</td>
</tr>
<tr>
<td>C-32</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Oily liquid cargo tank residues</td>
</tr>
<tr>
<td>C-33</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Ballast water</td>
</tr>
<tr>
<td>C-34</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Raw sewage</td>
</tr>
<tr>
<td>C-35</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Treated sewage</td>
</tr>
<tr>
<td>C-36</td>
<td>Liquid</td>
<td>Oiliness</td>
<td>Non-oily liquid cargo residues</td>
</tr>
<tr>
<td>C-37</td>
<td>Gas</td>
<td>Explosibility/inflammability</td>
<td>Fuel gas</td>
</tr>
</tbody>
</table>
### TABLE C  Potentially hazardous items

<table>
<thead>
<tr>
<th>No.</th>
<th>Properties</th>
<th>Goods</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Part I</td>
</tr>
<tr>
<td>C-39</td>
<td></td>
<td>Dry cargo residues</td>
<td>x</td>
</tr>
<tr>
<td>C-40</td>
<td></td>
<td>Medical waste/infectious waste</td>
<td>x</td>
</tr>
<tr>
<td>C-41</td>
<td></td>
<td>Incinerator ash(^2)</td>
<td>x</td>
</tr>
<tr>
<td>C-42</td>
<td></td>
<td>Garbage(^1)</td>
<td>x</td>
</tr>
<tr>
<td>C-43</td>
<td></td>
<td>Fuel tank residues</td>
<td>x</td>
</tr>
<tr>
<td>C-45</td>
<td></td>
<td>Oily solid cargo tank residues</td>
<td>x</td>
</tr>
<tr>
<td>C-45</td>
<td></td>
<td>Oily or chemical contaminated rags</td>
<td>x</td>
</tr>
<tr>
<td>C-46</td>
<td></td>
<td>Batteries (incl. lead acid batteries)</td>
<td>x</td>
</tr>
<tr>
<td>C-47</td>
<td></td>
<td>Pesticides/insecticide sprays</td>
<td>x</td>
</tr>
<tr>
<td>C-48</td>
<td></td>
<td>Extinguishers</td>
<td>x</td>
</tr>
<tr>
<td>C-49</td>
<td></td>
<td>Chemical cleaner (incl. electrical equipment cleaner, carbon remover)</td>
<td>x</td>
</tr>
<tr>
<td>C-50</td>
<td></td>
<td>Detergent/bleacher (could be a liquid)</td>
<td>x</td>
</tr>
<tr>
<td>C-51</td>
<td></td>
<td>Miscellaneous medicines</td>
<td>x</td>
</tr>
<tr>
<td>C-52</td>
<td></td>
<td>Fire fighting clothing and Personal protective equipment</td>
<td>x</td>
</tr>
<tr>
<td>C-53</td>
<td></td>
<td>Dry tank residues</td>
<td>x</td>
</tr>
<tr>
<td>C-54</td>
<td></td>
<td>Cargo residues</td>
<td>x</td>
</tr>
<tr>
<td>C-55</td>
<td></td>
<td>Spare parts which contain materials listed in Table A or Table B</td>
<td>x</td>
</tr>
</tbody>
</table>

\(^1\) Definition of garbage is identical to that in MARPOL Annex V. However, incinerator ash is classified separately because it may include hazardous substances or heavy metals.

### TABLE D\(^*\)  Regular consumable goods potentially containing Hazardous Materials

<table>
<thead>
<tr>
<th>No.</th>
<th>Properties</th>
<th>Example</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-1</td>
<td>Domestic and accommodation appliances</td>
<td>Computers, refrigerators, printers, scanners, television sets, radio sets, video cameras, video recorders, telephones, consumer batteries, fluorescent lamps, filament bulbs, lamps</td>
<td>x</td>
</tr>
</tbody>
</table>

\(^*\) This Table does not include ship-specific equipment integral to ship operations, which has to be listed in Part I of the Inventory.
ANNEX B
EUROPEAN UNION SHIP RECYCLING REGULATION
LIST OF MATERIALS TO BE INCLUDED IN THE IHM*

* The EU Regulation Annex I materials apply to existing ships, regardless of their flags (except PFOS for ships flying the flag of a third country) and Annex II applies to new ships according to the compliance dates as indicated with Annex C of the present guidelines.
## CONTROL OF HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>Hazardous Material</th>
<th>Definitions</th>
<th>Control measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos</td>
<td>Materials containing asbestos</td>
<td>For all ships, new installation of materials which contain asbestos shall be prohibited.</td>
</tr>
<tr>
<td>Ozone-depleting substances</td>
<td>Controlled substances defined in Article 1(4) of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A,B,C or E to that Protocol in force at the time of application or interpretation of this Annex.</td>
<td>New installations which contain ozone-depleting substances shall be prohibited on all ships.</td>
</tr>
<tr>
<td></td>
<td>Ozone-depleting substances that may be found on board ships include, but are not limited to:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halon 1211 Bromochlorodifluoromethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halon 1301 Bromotrifluoromethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halon 2402 1,2-Dibromo-1,1,2,2-tetrafluoroethane (also known as Halon 114B2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFC-11 Trichlorofluoromethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFC-12 Dichlorodifluoromethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFC-113 1,1,2-Trichloro-1,2,2-trifluoroethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFC-114 1,2-Dichloro-1,1,2,2-tetrafluoroethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CFC-115 Chloropentafluoroethane</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HCFC-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chlorodifluoromethane</td>
<td></td>
</tr>
<tr>
<td>Polychlorinated biphenyls (PCB)</td>
<td>'Polychlorinated biphenyls' means aromatic compounds formed in such a manner that the hydrogen atoms on the biphenyl molecule (two benzene rings bonded together by a single carbon-carbon bond) may be replaced by up to ten chlorine atoms</td>
<td>For all ships, new installation of materials which contain Polychlorinated biphenyls shall be prohibited.</td>
</tr>
<tr>
<td>Perfluorooctane sulfonic acid (PFOS)</td>
<td>'Perfluorooctane sulfonic acid' (PFOS) means perfluorooctane sulfonic acid and its derivatives</td>
<td>New installations which contain perfluorooctane sulfonic acid (PFOS) and its derivatives shall be prohibited in accordance with Regulation (EC) No 850/2004 of the European Parliament and of the Council (1).</td>
</tr>
<tr>
<td>Anti-fouling compounds and systems</td>
<td>Anti-fouling compounds and systems regulated under Annex I to the International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001 (AFS Convention) in force at the time of application or interpretation of this Annex.</td>
<td>1. No ship may apply anti-fouling systems containing organotin compounds as a biocide or any other anti-fouling system whose application or use is prohibited by the AFS Convention.</td>
</tr>
</tbody>
</table>
2. No new ship or new installations on ships shall apply or employ anti-fouling compounds or systems in a manner inconsistent with the AFS Convention.

(1) Not applicable for ships flying the flag of a third country.


<table>
<thead>
<tr>
<th>Hazardous Material</th>
<th>Definitions</th>
<th>Control measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. No new ship or new installations on ships shall apply or employ anti-fouling compounds or systems in a manner inconsistent with the AFS Convention.</td>
</tr>
</tbody>
</table>

(1) Not applicable for ships flying the flag of a third country.

ANNEX II

LIST OF ITEMS FOR THE INVENTORY OF HAZARDOUS MATERIALS

1. Any hazardous materials listed in Annex I
2. Cadmium and Cadmium Compounds
3. Hexavalent Chromium and Hexavalent Chromium Compounds
4. Lead and Lead Compounds
5. Mercury and Mercury Compounds
6. Polybrominated Biphenyl (PBBs)
7. Polybrominated Diphenyl Ethers (PBDEs)
8. Polychlorinated Naphthalenes (more than 3 chlorine atoms)
9. Radioactive Substances
10. Certain Shortchain Chlorinated Paraffins (Alkanes, C10-C13, chloro)
11. Brominated Flame Retardant (HBCDD)
ANNEX C
COMPLIANCE DATES FOR THE EUROPEAN REGULATION
## COMPLIANCE DATES FOR THE EUROPEAN REGULATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entry into force</strong></td>
<td><strong>30 December 2013</strong></td>
</tr>
<tr>
<td><strong>Application date – General</strong></td>
<td>(i) 6 months after the date that the combined maximum annual ship recycling output of the ship recycling facilities included in the European List constitutes not less than 2.5 million LDT (not earlier than 31 December 2015) – Or latest by: (ii) On <strong>31 December 2018</strong>.</td>
</tr>
<tr>
<td><strong>Application date – IHM requirement</strong></td>
<td>EU flag ships – Newbuilds: same as Application date – General EU flag ships and non-EU flag ships – Existing ships: <strong>31 December 2020</strong></td>
</tr>
<tr>
<td><strong>Provisions for the requirements for Ship Recycling Facilities to be included in the European List and Establishment/Publication of the EU list</strong></td>
<td>At the earliest <strong>31 December 2014</strong>. The EU List shall be published in the EU Official Journal no later than <strong>31 December 2016</strong>.</td>
</tr>
<tr>
<td><strong>Report Infringement related to the EU Ship Recycling Regulation</strong></td>
<td><strong>31 December 2014</strong></td>
</tr>
</tbody>
</table>
ANNEX D
FEEDBACK FORM
# SHIP RECYCLING FEEDBACK REPORT

<table>
<thead>
<tr>
<th>Ship Name*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship Type</td>
<td></td>
</tr>
<tr>
<td>Recycling Facility</td>
<td></td>
</tr>
<tr>
<td>Recycling State</td>
<td></td>
</tr>
<tr>
<td>Cash Buyer (where used)</td>
<td></td>
</tr>
</tbody>
</table>

*This information will not be passed on

## Summary of issues raised/problems/consequences

Reports should be sent to [recycling@ics-shipping.org](mailto:recycling@ics-shipping.org)