Guidelines on Transitional Measures for Shipowners

# Selling Ships for Recycling

In Preparation for the entry into force of the IMO Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships

BIMCO

INTERTANKO

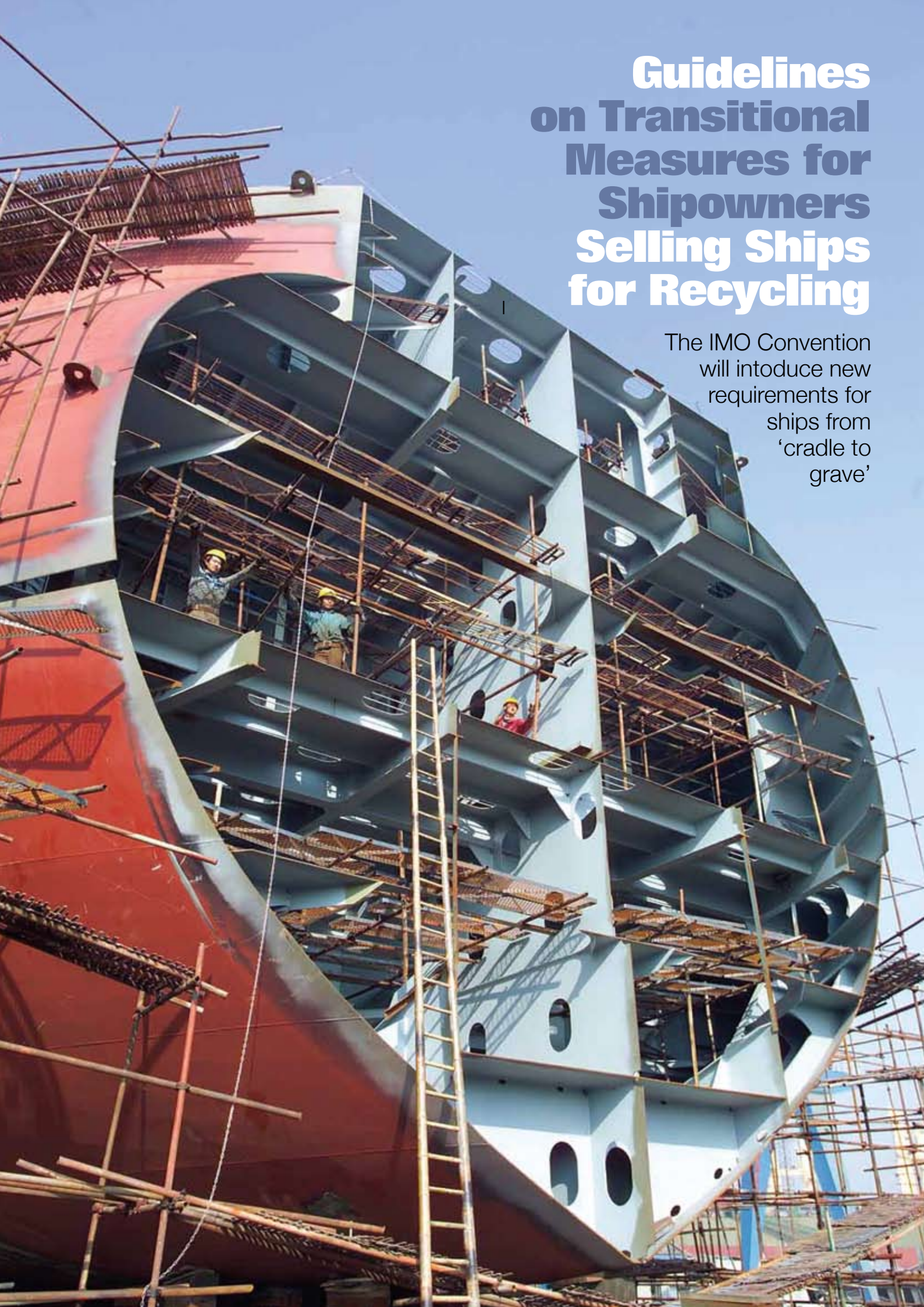
IACS

INTERNATIONAL CHAMBER OF SHIPPING

IPTA
International Parcel Tankers Association

INTERCARGO

OCIMF



# Guidelines on Transitional Measures for Shipowners Selling Ships for Recycling

The IMO Convention will intoduce new requirements for ships from 'cradle to grave'

# Introduction

Ship recycling is undoubtedly a 'green' industry and employs a large workforce in developing countries, the majority of recycling facilities being located in Asia. In the process of recycling ships that have reached the end of their working life almost nothing goes to waste. However, while the principles of ship recycling may be sound, the working practices and environmental standards in some recycling yards can sometimes fall short of internationally acceptable standards.

In May 2009, the International Maritime Organization (IMO) adopted a new International Convention for the Safe and Environmentally Sound Recycling of Ships, at a Diplomatic Conference in Hong Kong, China. Early ratification by governments of the 'Hong Kong Convention' is fully supported by the international shipping industry and the organisations that have produced this Guidance.

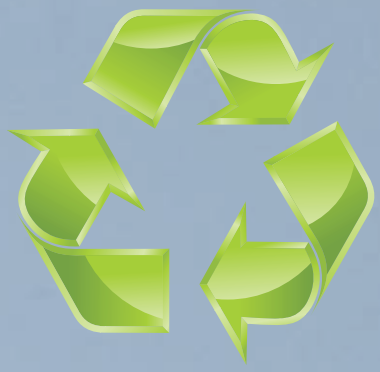
The IMO Convention will impose new requirements on ships from 'cradle to grave', i.e. from the time of a ship's construction to its final demolition. As such, there are various actions that shipowners will be required to take and have approved by Flag States (or by classification societies acting on their behalf). This includes the preparation and maintenance of inventories of hazardous materials in order to reduce the risk to workers in recycling yards. The Convention also creates a new obligation for shipowners to sell their redundant ships only 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 IMO Convention was the culmination of nearly 10 years of discussions by governments following 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 new IMO requirements. The Industry Working Group on Ship Recycling was first established in 1999 and is co-ordinated by the International Chamber of Shipping (ICS). Its current members also include BIMCO, IACS, INTERCARGO, INTERTANKO, IPTA, OCIMF and ITF.

The following 'Transitional Measures for Shipowners Selling Ships for Recycling' have been developed by the Industry Working Group since the adoption of the 'Hong Kong Convention'. The intention is that this guidance will be updated periodically as the new IMO standards are implemented by governments and more experience is gained.
These measures are also supported by the national shipowners' associations in Australia, Austria, Belgium, Bulgaria, Canada, Chile, Croatia, Cyprus, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Ireland, Italy, Japan, Korea, Kuwait, Liberia, Mexico, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

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

October 2009



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## 1. Purpose and Scope

It may take several years for the new IMO Ship Recycling Convention to be ratified by a sufficient number of governments for it to enter into force. However, in the interests of environmental protection and the safety and health of workers in ship recycling yards, shipowners and ship recyclers have a responsibility to begin implementing the IMO requirements now, and be ready for compliance during the current transitional period. This will also allow the industry to gain experience as it adapts to the new global regime, and to maintain a positive influence over the development of the new system for the sale of ships for recycling that governments will eventually enforce.

The following Transitional Measures seek to provide a means by which shipowners can start to ensure that their ships will be recycled by facilities that are compliant with the new IMO Convention to the greatest extent possible, while maintaining commercial competitiveness in established markets for the sale of redundant ships.

In the absence, at present, of an internationally enforceable legal regime, the way in which stakeholders implement the Convention requirements may be subject to some uncertainty. For the immediate future, variation will continue in terms of the quality across recycling facilities worldwide, and it may be difficult to obtain firm guarantees that standards are always being properly applied.

Adherence to these industry Transitional Measures should therefore be regarded as a sign of good faith prior to the entry into force of the IMO Convention. It should be assumed that adherence to the following measures will increasingly be required by Flag States, and authorities in Recycling States, as the entry into force date approaches. In view of this, and the technical and logistical implications of compliance with the Convention, it is recommended that shipowners apply these Transitional Measures as quickly as possible.

## 2. Maintaining Inventories of Hazardous Materials

The principal obligation for shipowners under the new Convention, that will apply during the operational life of a ship, will be the development and maintenance of an inventory of hazardous materials. This must identify the location and approximate quantities of materials found in the ship's structure that may present a danger to workers in recycling facilities. If they have not done so already, it is strongly recommended that shipowners begin preparing such inventories now.

The inventory must contain three sections: Part I should list the hazards inherent in the structure itself, while Parts II and III must cover operational wastes and stores.

Only Part I needs to be maintained during the life of the ship, while Parts II and III should be completed prior to delivery to recycling facilities as described in Section 3 below.

Materials that should be included in the inventory can be found at Annexes A, B and C (reproduced from the Convention).

Different requirements apply for new builds and existing ships. For new builds, the inventory Part I must detail the materials listed in both Annexes A and B.

For existing ships, the inventory Part I need only account for those materials listed in Annex A, with materials in Annex B described only to the extent practicable.

In the interests of safety, and the protection of workers in ship recycling yards, it is strongly recommended that shipowners ensure that inventories are developed and maintained for all ships currently operating, as well as for any ships that may be on order. It is likely that such inventories will be increasingly required to complete sales for recycling. Preparation and maintenance of inventories will also help to demonstrate the ongoing compliance of ships which continue in service after the entry into force of the Convention.

Inventories may change in their particulars during the lifetime of a vessel. It is therefore important to ensure they are properly updated whenever ships are re-equipped, refitted or repaired. This will help ensure an accurate description of the hazards inherent in the ship and avoid unnecessary delays during future sales.

Although it is possible for shipowners to develop inventories using their own resources, it may be helpful to employ classification societies, many of which already offer support and related services, including options for follow-up surveys to ensure that the document is regularly updated. The assistance of class societies (particularly those authorised by flag states to approve inventories) should help ensure that inventories are prepared and maintained in accordance with the Convention. This can be valuable during sale negotiations when it will be necessary to demonstrate compliance, including during the interim period prior to the Convention's entry into force.

## 3. Selling a Ship for Recycling in Accordance with the IMO Convention

The IMO Convention creates a new obligation for shipowners to sell their redundant ships 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.

It is likely that the new regime will create a commercial environment that differs considerably from that under which ships are currently sold for recycling, and that will redefine the roles of key stakeholders. The exact form which this new commercial environment will take is unknown, and this may remain the case for some time. However, it is hoped that the application of these Transitional Measures will help give rise to a system that combines legal integrity with commercial flexibility, encouraging use of safe and environmentally sound ship recycling facilities without distorting fair competition.

A standard contract, such as the amended DEMOLISHCON[1], should provide an ideal tool to help parties adapt, providing a suitably balanced and commercially flexible contract that enshrines the principles of the IMO Convention. The following guidance describes how, during the transitional period, shipowners can ensure, when selling ships for recycling, that they fulfil the requirements of the IMO Convention to the maximum extent possible.

### 3.1 Methods of Sale

There are two possible routes which shipowners might usually take when selling a ship for recycling: either to contact recycling facilities directly, or to use the services of a cash buyer.

Direct sale to recycling facilities cuts out the 'middle man' and can therefore, 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 to pursue. Direct sales require a detailed knowledge of the recycling market, and specific information about the recycling country, that 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, unavailable within many companies. Furthermore, legal requirements for financing a sale may prohibit the option of direct sales in certain Recycling States.

For the foreseeable future, selling directly to a recycling facility is likely to be an option only for larger shipping companies that have a sizeable amount of obsolete tonnage to be recycled, and 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 hand over to the recycling facility. Under the new Convention regime cash buyers will have the same legal responsibility for the ship as a shipowner, although it is uncertain what this requirement will mean in practice. It seems probable however, provided sufficient market pressure is asserted, that the cash buyer will increase in importance as a facilitator, matching vessels to yards and assisting shipowners in identifying suitable recycling facilities for their ships in accordance with the Convention's provisions.

Cash buyers usually have considerable knowledge of the recycling industry, and their familiarity with recycling facilities should increase the likelihood of their finding a suitable yard. An objective of this

[1]Published by BIMCO – the amended version should be available in early 2010.

guidance is to provide shipowners with a means of utilising this knowledge to their best advantage in compliance with the IMO Convention requirements.

## 3.2 Ensuring a Recycling Facility is Competent

Until the IMO Convention enters into force and legally defines what constitutes an acceptable ship recycling facility, the ability for shipowners to identify acceptable yards and fulfil their obligations will be determined by how quickly nations ratify the Convention, and how rapidly detailed information about recycling capacity 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 following mechanism 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 under the new Convention. 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.*

### 3.2.1 Cash Buyer Versus Direct to Yard

The method of sale chosen by a shipowner will affect the way in which the proposed measures 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 the buyer 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.

### 3.2.2 Ship Recycling Plan

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 for the specific vessel in question.

*Where yards will not develop a Ship Recycling Plan 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 inventory of hazardous materials, including estimates of stores and operationally generated wastes that will be present at the time of delivery (see Section 2). 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 recycling plan is as accurate and comprehensive as possible.

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

#### 3.2.2.1 Prior Removal of Hazardous Materials

While it is always recommended that a facility be selected that can demonstrate a capacity and capability sufficient to handle all materials listed in a ship's inventory, 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 Ship Recycling Plan so that they can be documented and authorised at the final survey.

Where facilities require prior removal of dangerous 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 such work can be undertaken in safe and environmentally sound circumstances in accordance with the relevant regulations.

#### 3.2.2.2 Safe for Entry and Hot Work

National legislation in a number of recycling states already requires that chemical and oil tankers are delivered with their cargo spaces having been cleaned for 'gas freeing', and this requirement has been incorporated into the new Convention. In the transitional period it is therefore 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 bunkers will indeed be 'gas freed' for hot work prior to the commencing of cutting throughout the demolition process. This activity should also be included in the Ship Recycling Plan.

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

### 3.2.3 Certification and Flag State Reporting

A cornerstone of the IMO Convention will be the establishment of an international reporting system between governments to guarantee compliance with the provisions.

Such a system is unlikely to become a reality until a sufficient number of Flag States and Recycling States have ratified the Convention, and this may not occur until entry into force. However, there are clear benefits for shipowners who obtain confirmation that they have acted in accordance with the applicable terms of the Convention 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 above mentioned actions have been taken. This confirmation should be deposited with the Flag State. This will not only demonstrate good will on the part of the shipping company, but will also assist in the resolution of any disputes. Furthermore, this process will provide an indication throughout the period prior to the Convention's entry into force of the extent to which acceptable recycling capacity is available worldwide.

## 3.2.4 Other Factors to Consider

The actions described above are the minimum which shipowners should undertake 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 Convention's full entry into force is likely to see other activities become feasible over time as the recycling industry comes to grips with its responsibilities and more nations ratify the instrument. 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.

## 3.2.4.1 Facility Management Plan

The Convention requires each recycling facility to possess an approved Facility Management Plan which should provide a holistic system to ensure that ships are recycled in a safe and environmentally sound manner. It is unknown how many facilities possess such a plan at present and, if they do, the extent to which they comply fully with the IMO Convention.

During the transitional period, obtaining confirmation that a Facility Management Plan exists is perhaps less important than shipowners 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 Facility Management 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.

A Facility Management 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:

### Facility Management

• A programme for appropriate training of workers for the safe and environmentally sound operation of the ship recycling facilities;

• The implementation of an emergency preparedness and response plan;

• A system for regular monitoring of the performance of the ship recycling operations, and;

• A system for record keeping on how the ship recycling operation is performed, including reporting discharges, emissions and accidents causing damage or with the potential of causing damage to workers' safety, health and the environment.

### Worker Health and Safety

• The provision and availability of personal protective equipment and clothing needed for all ship recycling operations, and;

• Appropriate training of workers to undertake safely all operations they are tasked to do.

### Waste Treatment

• Capacity and treatment ability with respect to the following waste streams:

- substances or objects containing heavy metals such as lead, mercury, cadmium and hexavalent chromium
- paints and coatings that are highly flammable and/or may lead to toxic releases during cutting
- asbestos and asbestos containing materials (ACMs)
- PCBs and materials containing PCBs
- CFCs and halons.

## 3.2.4.2 State Authorisation

The easiest means for shipowners to identify acceptable capacity will be to check whether the Recycling State has authorised the recycling facility as being in compliance with the IMO Convention. This process will occur as governments ratify the Convention, but it may be some time before sufficient authorised capacity exists for shipowners to act in full accordance with the Convention requirements. However, Recycling States that ratify the Convention in the interim will authorise their facilities and where such approved facilities are available it should be unnecessary to carry out the recommendations mentioned above.

## 4. Feedback

It is emphasised that this is a "live" document and the intention is for it to it be reviewed and revised frequently in light of industry experience of attempting to apply the Convention requirements during the transitional period.

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 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, by completing the feedback form at Annex D and returning it to the Industry Working Group.

## Annex A

## Materials to be listed in inventories of hazardous materials for all ships[2]

| Hazardous Material | Definitions | Control measures |
|---|---|---|
| Asbestos | Materials which contain asbestos | For all ships, new installation of materials which contain asbestos shall be prohibited. |
| Ozone-depleting substances | Ozone-depleting substances means controlled substances defined in paragraph 4 of article 1 of the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, listed in Annexes A,B,C or E to the said Protocol in force at the time of application or interpretation of this Annex.<br><br>Ozone-depleting substances that may be found on board ship include, but are not limited to:<br><br>Halon 1211<br>Bromochlorodifluoromethane<br><br>Halon 1301<br>Bromotrifluoromethane<br><br>Halon 2402<br>1,2-Dibromo-1,1,2,2-tetrafluoroethane<br>(also known as Halon 114B2)<br><br>CFC-11<br>Trichlorofluoromethane<br><br>CFC-12<br>Dichlorodifluoromethane<br><br>CFC-113<br>1,1,2-Trichloro-1,2,2-trifluoroethane<br><br>CFC-114<br>1,2-Dichloro-1,1,2,2-tetrafluoroethane<br><br>CFC-115<br>Chloropentafluoroethane | New installations which contain ozone-depleting substances shall be prohibited on all ships, except that new installations containing hydrochlorofluorocarbons (HCFCs) are permitted until 1 January 2020. |
| Polychlorinated biphenyls (PCB) | '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. | For all ships, new installation of materials which contain Polychlorinated biphenyls shall be prohibited. |
| Anti-fouling compounds and systems | Anti-fouling compounds and systems regulated under Annex 1 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. | 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.<br><br>2. No new ships or new installations on ships shall apply or employ anti-fouling compounds or systems in a manner inconsistent with AFS Convention. |

[2] List taken from Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009, Appendix 1.

## Annex B

## Materials to be included in inventories for new builds and new installations[3]

| |
|---|
| Any Hazardous Materials listed in Annex A |
| Cadmium and Cadmium Compounds |
| Hexavalent Chromium and Hexavalent Chromium Compounds |
| Lead and Lead Compounds |
| Mercury and Mercury Compounds |
| Polybrominated Biphenyl (PBBs) |
| Polybrominated Diphenyl Ethers (PBDEs) |
| Polychlorinated Naphthalenes (more than 3 chlorine atoms) |
| Radioactive Substances |
| Certain Shortchain Chlorinated Paraffins (Alkanes, C10-C13, chloro) |

[3] List taken from Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009, Appendix 2.

## Annex C

## Materials to be included in Parts II & III of the inventory[4]

| No | Properties | | Goods | Inventory | | |
|---|---|---|---|---|---|---|
| | | | | Part I | Part II | Part III |
| C1 | | | Kerosene | | | X |
| C2 | | Oiliness | White Spirit | | | X |
| C3 | | | Lubricating Oil | | | X |
| C4 | | | Hydraulic Oil | | | X |
| C5 | | | Anti-seize Compounds | | | X |
| C6 | | | Fuel Additive | | | X |
| C7 | | | Engine Coolant Additives | | | X |
| C8 | | | Antifreeze Fluids | | | X |
| C9 | Liquid | | Boiler and Feed Water Treatment and Test Re-agents | | | X |
| C10 | | | De-ioniser Regenerating Chemicals | | | X |
| C11 | | | Evaporator Dosing and Descaling Acids | | | X |
| C12 | | | Paint Stabilisers/Rust Stabilisers | | | X |
| C13 | | | Solvents/Thinners | | | X |
| C14 | | | Paints | | | X |
| C15 | | | Chemical Refrigerants | | | X |
| C16 | | | Battery Electrolyte | | | X |
| C17 | | | Alcohol, Methylated Spirits | | | X |
| C18 | | | Acetylene | | | X |
| C19 | | Explosives/ Inflamables | Propane | | | X |
| C20 | | | Butane | | | X |
| C21 | | | Oxygen | | | X |
| C22 | | | $CO_2$ | | | X |
| C23 | Gas | | Perfluorocarbons (PFCs) | | | X |
| C24 | | | Methane | | | X |
| C25 | | Green House Gasses | Hydrofluorocarbon (HFCs) | | | X |
| C26 | | | Nitrous Oxide ($N_2O$) | | | X |
| C27 | | | Sulphur Hexafluoride (SF6) | | | X |

[4] List taken from MEPC 59/3, Annex 2.

| No | Properties | | Goods | Inventory | | |
|---|---|---|---|---|---|---|
| | | | | Part I | Part II | Part III |
| C28 | | | Bunkers: Fuel Oil | | | X |
| C29 | | Oiliness | Grease | | | X |
| C30 | | | Waste Oil (Sludge) | | X | |
| C31 | | | Bilge | | X | |
| C32 | Liquid | | Only Liquid Cargo Tank Residues | | X | |
| C33 | | | Ballast Water | | X | |
| C34 | | | Raw Sewage | | X | |
| C35 | | | Treated Sewage | | X | |
| C36 | | | Non-Oily Liquid Cargo Residues | | X | |
| C37 | Gas | Explosibility/ Inflamability | Fuel Gas | | | X |
| C38 | | | Dry Cargo Residues | | X | |
| C39 | | | Medical Waste/Infectious Waste | | X | |
| C40 | | | Incinerator Ash* | | X | |
| C41 | | | Garbage* | | X | |
| C42 | | | Fuel Tank Residues | | X | |
| C43 | | | Oily Solid Cargo Tank Residues | | X | |
| C44 | | | Oily/Contaminated Rags | | X | |
| C45 | Solid | | Batteries (including Lead Acid Batteries) | | | X |
| C46 | | | Pesticides/Insecticide Sprays | | | X |
| C47 | | | Extinguishant | | | X |
| C48 | | | Chemical Cleaner (including Electrical Equipment Cleaner, Carbon Remover) | | | X |
| C49 | | | Detergent/Bleacher (could be a liquid) | | | X |
| C50 | | | Miscellaneous Medicines | | | X |
| C51 | | | Fire fighting clothing, equipment | | | X |
| C52 | | | Dry Tank Residues | | X | |
| C53 | | | Cargo Residues | | X | |
| C54 | | | Spare Parts containing material listed in Annex A/B | | | X |

*Definition of Garbage is identical with that of MARPOL Annex V. However Incinerator Ash is classified separately because it may include hazardous substances or heavy metals.

**Annex C** *(continued)*

## Regular consumable goods potentially containing Hazardous Materials•

| No | Properties | Example | Inventory | | |
|---|---|---|---|---|---|
| | | | Part I | Part II | Part III |
| D1 | Domestic and accommodation | Computers, refrigerators, printers scanners, appliances. television sets, radio sets, video cameras, telephones, consumer batteries, fluorescent lamps filament bulbs, lamps | | | X |

•This table does not include ship specific equipment integral to ship operations, which must be listed in Part I of the inventory.

**Annex D**

# Ship Recycling Feedback Report

| | |
|---|---|
| *Ship Name | |
| Ship Type | |
| Recycling Facility | |
| Recycling State | |
| Cash Buyer (where used) | |

*This information will not be passed on

Summary of issues raised/problems/consequences

Reports should be sent to recycling@marisec.org