



## **Study in relation to options for new initiatives regarding dismantling of ships**

*Note on pros and cons of early transposition of  
the Ship Recycling Convention*



## Table of contents

1	Introduction .....	5
1.1	The context and issues to be addressed.....	5
1.2	The different policy options under consideration .....	5
1.3	Briefly about the paper - some reader's guidance .....	7
2	Rationale for early action at the European level.....	8
2.1	The EU's responsibility - background and key ship dismantling figures .....	8
2.2	Responsibility linked to the Waste Shipment Regulation.....	11
2.3	Other examples of early transposition .....	12
2.3.1	Anti-fouling systems on ships .....	13
2.3.2	Accelerated phase out of single hull tankers .....	14
2.3.3	Compensation for victims of oil pollution damage .....	14
2.4	Legal Basis.....	15
2.5	Consequences of no early EU action .....	17
2.6	Issues linked to EU early transposition.....	19
2.6.1	Advantages of an EU early transposition .....	20
2.6.2	Potential problems.....	22
2.6.3	The question of scope.....	25
3	Implications of specific measures.....	28
3.1	Key requirements of the Convention .....	28
3.1.1	Inventory of hazardous materials, surveys and certificates.....	28
3.1.2	Requirements for ship recycling facilities.....	30
3.2	Additional measures.....	32
3.2.1	Mandatory audit and certification scheme for ship recycling facilities .....	32
3.2.2	Mandatory funding mechanism.....	35
4	Conclusion .....	36

## Appendices

Appendix 1 – Data on historical scrapping and forecasts of future scrapping of EU vessels

Appendix 2 – Health, safety and environmental issues within ship recycling

## Abbreviations

CLC	International Convention on Civil Liability for Oil Pollution Damage
COPE	Compensation for Oil Pollution in European waters fund
DG ENV	Directorate-General for the Environment of the European Commission
EC	European Community
ECJ	European Court of Justice
EMSA	European Maritime Safety Organisation
GT	Gross tonnage
HBCDD	Brominated Flame Retardant
IHM	Inventory of Hazardous Materials
ILO	International Labour Organisation
IMO	International Maritime Organization
IMS	Integrated Management System
IOPC	International Oil Pollution Compensation
IRRC	International Ready for Recycling Certificate
ISO	International Standard Organisation
LDT	Light Displacement Tonnage
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships
MEPC	IMO Marine Environment Protection Commission
OECD	Organisation for Economic Co-operation and Development
OHSAS	Occupational Health and Safety Assessment Series
PFOS	Perfluorooctane sulfonates
VLCC	Very large crude oil tanker

# Pros and cons of early transposition of the Ship Recycling Convention

## 1 Introduction

### 1.1 The context and issues to be addressed

The dismantling of end-of-life ships by beaching in countries without adequate minimum standards raises grave environmental protection and occupational health and safety concerns. The International Maritime Organization (IMO)'s efforts in providing for a globally binding ship recycling regime are recognized and welcome. However, it is unlikely that the Ship Recycling Convention<sup>1</sup> will enter into force before 2015. Moreover, the full effect of the new international regime is likely to become effective even later (by the end of 2020 at the earliest).<sup>2</sup> This is not considered to be immediate enough particularly in view of the expected escalation of these problems as the EU phases out single hull tankers as of 2010 and 2015. Moreover, the situation is of special concern to the EU since many ships sail under the flag of an EU Member State, and even more are owned by European companies.

The IMO and the EU share the same concerns in terms of health, safety, the environment and welfare. The common goal of both is to effectively address the environmental and health and safety risks associated with ship dismantling practices. However, it must be noted at the outset that EU action in maritime affairs is hampered by the fact that the European Community itself is not a member of the IMO, although all 27 Member States are IMO members. Therefore, the EU is not a party to the IMO Conventions but an observer, although its Member States may be parties. In addition, there is no provision in the Ship Recycling Convention, which would allow for Regional Economic Integration Organisations to become a Party. Only States are entitled to become Parties to the Convention.

Over the next two to ten years, several conditions affecting the rate of recycling will come into play: firstly, the freight market is cooling off due to the global economic slowdown since late 2007); secondly, the introduction of considerable new tonnage will put a downward pressure on freight rates and this is a decisive factor in driving decommissioning of ships; finally, the mandatory IMO single hull tanker phase out scheme stipulates a 2010 deadline that will affect several million tons of tanker tonnage. All in all the impact in tandem of declining market conditions and a changing regulatory environment will undoubtedly lead to massive decommissioning and recycling volumes will soar. The phase out of single hull tankers may contribute to up to 9 million tons lightweight and the scrapping backlog from years of booming market conditions may add 15 million tons lightweight to the recycling yards.<sup>3</sup>

### 1.2 The different policy options under consideration

---

<sup>1</sup> IMO Hong Kong International Convention for the safe and environmentally sound recycling of ships, 2009, (SR/CONF/45) adopted 19 May 2009.

<sup>2</sup> See Section 2.6.1 p.17 on the conditions for entry into force of the Ship Recycling Convention

<sup>3</sup> COWI/Litehauz/ EMSA, 'Certification of Ship Recycling Facilities', 2008

The Commission is proposing different policy options, including the option of early transposition of the IMO Convention, in order to effectively redress these currently unacceptable conditions in a timely manner, before the IMO Convention becomes effective. These proposals are put forth within the framework of the Integrated Maritime Policy for the European Union of October 2007, where the Commission stated that, taking duly into account the ongoing work at international level, it will make proposals for dismantling obsolete ships in an efficient, safe and environmentally sustainable manner.<sup>4</sup>

On 22 May 2007, a Green Paper on better ship dismantling<sup>5</sup> setting out a range of possible measures whereby the EU could contribute to safer and more environmentally sound treatment of end-of-life ships worldwide was adopted. One of the policy options outlined in the Green Paper, alongside the possibility of establishing a 'ship dismantling fund', is that of transposing the key elements of the Ship Recycling Convention into Community law and development of relevant complementing measures. Based on the results of the public consultation, which followed the presentation of the Green Paper,<sup>6</sup> the Commission developed the EU Strategy on better ship dismantling (the Strategy), adopted in November 2008.<sup>7</sup> The Strategy also reflects the call from the European Parliament to the Commission and Member States to take urgent action on this issue.<sup>8</sup>

The Strategy's overarching objective is to ensure that ships with a strong link to the EU in terms of flag or ownership are dismantled only in safe and environmentally sound facilities worldwide, in line with the Ship Recycling Convention. The Strategy sets out possible action areas and tools. Among its operational objectives are those of ensuring an effective and early transposition of the Ship Recycling Convention in the EU, supplementing it with the necessary measures to address negative impacts of ship dismantling that are not covered by the Convention and promoting its practical effectiveness.

The Strategy proposes a number of measures to improve ship dismantling conditions including making key elements of the Convention mandatory as soon as possible after its adoption at the diplomatic conference which took place in May 2009. In particular, measures concerning surveys, certification and inventory of hazardous materials on board, essential requirements for recycling facilities and rules on reporting and communication, namely, information duties of recycling states and reporting requirements for shipowners and recycling facilities, could be transposed into Community law. The Strategy also proposes filling the gaps identified, encouraging voluntary action, among others by industry, and assessing the feasibility of the introduction of a ship dismantling fund. The Strategy is accompanied by an Impact Assessment which concluded that the most appropriate option is that of an integrated policy approach combining legislative measures to implement and complement the Convention at EU level, and non-legislative measures to promote voluntary action by industry.<sup>9</sup>

The Strategy also envisages the need for measures beyond those of the Convention. Firstly, this concerns the scope of the future rules. The Convention exempts three categories of ships from its scope: small vessels below 500 GT, ships used only on government non-commercial service, including warships which have a relatively high contamination with asbestos and other hazardous materials, and ships operating throughout their life only inside domestic waters. It requires Parties to ensure through appropriate measures that the exempted ships act in a manner consistent with the Convention in so far as this is 'reasonable and practicable'. The Commission is contemplating the possibility of including in the ship recycling measures, amongst others, rules for the clean dismantling of ships which are not covered by the Convention.

---

<sup>4</sup> COM(2007) 575 final

<sup>5</sup> COM(2007) 269 final

<sup>6</sup> COM(2007) 269 final

<sup>7</sup> COM (2008) 767 final

<sup>8</sup> European Parliament resolution of 21 May 2008 on the Green Paper on better ship dismantling available at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0222+0+DOC+XML+V0//EN>

<sup>9</sup> SEC(2008) 2846

The Convention requests each Party to establish a mechanism for ensuring that Ship Recycling Facilities comply with the requirements of the Convention (inspection, monitoring and enforcement provision). Such a mechanism may include an audit scheme to be carried out by its Competent Authority(ies) or an organization recognized by the Party. With a view to ensuring a more harmonized and effective implementation of the requirements for recycling facilities, the Commission is considering the introduction of a legal requirement for ships to go to certified and audited facilities for dismantling. The Strategy also proposes that the Commission evaluate how EU ships can be encouraged to use such scheme. The Parliament has called for the Commission to develop and maintain a list of ships likely to be scrapped within a few years, and to ensure mechanisms to consider such ships as ‘pre-waste ships’ which would be subject to an obligation to draw a disposal plan before it being sold for dismantling. Such an option is directly linked to the implementation of the Waste Shipment Regulation<sup>10</sup> but would set up requirements on ships which are not considered yet as waste, going further than the current regulation.

The Strategy also proposes that the Commission look at the feasibility of establishing a mandatory funding system for clean ship dismantling (‘ship dismantling fund’). A ship dismantling fund could potentially play a vital role in providing proper incentive for the stakeholders (i.e. the shipping industry and the ship scrapping industry) to ensure that ships are dismantled at a certified facility.

On 9 June 2009, a stakeholder workshop was held at DG Environment. This followed the public stakeholder consultation launched on 6 April 2009 with a view to gathering stakeholder opinions on the options being considered and highlighted above. Stakeholder responses to the questionnaire as well as views expressed during the workshop are reflected in the relevant parts of this note. In encouraging stakeholder contributions, the Commission stressed that at this point in time, all options are open and that an Impact Assessment would be carried out to determine the environmental, social and economic impacts of these.

### **1.3 Briefly about the paper - some reader's guidance**

The present paper reviews the pros and cons of early EU transposition of the Ship Recycling Convention. Firstly, it focuses on general aspects related to the rationale for an early transposition. Secondly, the paper envisages the implications of the transposition of the Convention’s key requirements.

Following this introduction, **Chapter 2** analyses the rationale for early action at the European level, focussing on the EU’s responsibility to take action and other examples of early transposition illustrating that EU action can have a very positive influence to ensure timely implementation of international requirements or even to trigger action at the international level. It also outlines the consequences of no EU action, in particular with regard to the large number of single hull oil tankers foreseen to be phased out in 2010 and 2015.

Rules adopted at EU level will be only regional. The Convention, once it enters into force, will apply internationally whereas the requirements of EC legislation are regional in scope. Therefore, requirements such as those on control of Ship Recycling Facilities cannot be established at EU level for facilities located outside the territory of EU Member States although they could be given effect to by virtue of obligations imposed on shipowners to have their ships dismantled only in certified (‘green’) recycling facilities. However, this is different to an obligation which would be placed

---

<sup>10</sup> Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, OJ L 190, 12.7.2006.

directly on the facilities themselves. In particular, such an ‘extension’ of EU requirements would be more difficult to control and enforce.

The issues linked to a regional approach, including the advantages and disadvantages of adopting measures in the interim period prior to the entry into force of the Convention are also analysed together with the scope of an EU instrument.

**Chapter 3** assesses the implications of the transposition of the Convention’s key requirements, namely, the inventory of hazardous materials, surveys and certificates, the requirements for ship recycling facilities and reporting requirements. It also considers the main additional mechanisms, which could be instrumental in promoting the implementation and enforcement of these requirements i.e. a mandatory audit and certification scheme for ship recycling facilities and a mandatory funding mechanism. These last two parts form the basis to identify selected key provisions of the Convention and additional requirements, which should be regulated at EU level, and main potential impacts.

Our conclusions are presented in **Chapter 4**.

For ease of reference, data on historical scrapping and forecasts of future scrapping of EU vessels is annexed to this note as **Appendix 1**. Information on health, safety and environmental issues within ship recycling has been included in **Appendix 2**. The information provided in the appendices is from the recent COWI/DHI and COWI/LITEHAUZ reports prepared for DG Environment and EMSA respectively.

## **2 Rationale for early action at the European level**

The EU has a particular responsibility with regard to the safe dismantling of ships, not only linked to its weight in worldwide shipping but also as a driving force for the implementation of international standards, a role that the EU has already played successfully. Besides, the EU is also accountable under international rules on transboundary shipment of hazardous waste.<sup>11</sup> Finally, the competence of the EU to regulate this matter is embedded in the EC Treaty provisions on environmental protection and maritime transport safety

### **2.1 The EU’s responsibility - background and key ship dismantling figures**

The Ship Recycling Convention aims, as indicated above, at addressing in a legally binding instrument environmental, occupational health and safety risks related to ship recycling but it is unlikely that it will enter into force before 2015. Early transposition of the ship dismantling rules into EU legislation will redress the progression of the currently unacceptable situation with respect to ships with a strong link to the EU in terms of flag or ownership without further delay.

Owing to the very size of its fleet, the EU has a responsibility to take action in ensuring its ships are dismantled in a safe and environmentally sound manner once they have reached the end of their operating lives. The share of maritime transport in trade in goods is very significant as almost 90% of the EU external trade in goods and more than 40% of its internal trade is transported by sea. As for the share of the EU fleet within the world fleet, there are different ways to measure the importance of a shipping country or region, and depending on the method used, the share of the EU27 fleet ranges between 20 and 33%:

---

<sup>11</sup> The European Community is Party to the Basel Convention since 22/03/1989

- Over the past 30 years, the EU27 countries flagged fleet of ships has grown from 118 million GT to 162 million GT or by 37%, but given that the world fleet at the same time has grown from 400 million to 800 million GT or 100% the EU27 share has decreased from a share of 30% in 1978 to 20% in mid-2008.
- Another measure is based on the amount of owned tonnage. On this basis, the GT development in an EU27 perspective has grown over the last 30 years from approximately a 32% share of the world fleet at the starting point and 33% in 2007.
- Finally, a last measurement tool is to consider the group operators country. In this sense, the companies within EU countries control just above 30% since the eighties.<sup>12</sup>

The most recent public data set on ship dismantling is available in the DG ENV report by COWI/DHI from 2007<sup>13</sup> and the limited data presented in the paper by the IMO also from 2007.<sup>14</sup> Thus, the most recent data are 2006 data and a new data search in commercial databases would yield 2007 data and at least data for the first half of 2008. During this period, the freight market was booming and very few vessels were scrapped. The reports directly from the main scrap areas suggest that only slowly in November and December 2008 did scrapping pick up, and in the early part of 2009 the recycling beaches were seeing considerable business again. This surge in 2009 will not be reflected in the demolition databases for some time and a renewed data search will not clarify the picture with respect to the most interesting phase shift regarding supply and demand in ship recycling. The analysis in this paper is therefore based on ship dismantling data in the 2007 COWI/DHI/DG ENV report.

The forecasts for future scrapping volumes calculated in Light Displacement Tonnage (LDT) by country of ownership and flag State for EU27 states are shown in Figure 1 below. Vessels owned by non-EU countries and flying the flag of non-EU countries account for the largest share of future scrapping - in the region of 3-6 million LDT/year, except for the peak in 2010 where a large number of single hull oil tankers are foreseen to be phased-out.

The forecasts show that EU-flagged vessels (both EU-owned and non-EU owned) would account for 21% of the scrapped tonnage within the period 2007-2020. Adding up the EU-owned ships, both EU-flagged and non EU-flagged, brings the forecast up to 38% of the total scrapped tonnage of around 106 million LDT covering all ships for this period.

---

<sup>12</sup> Benchmarking strategic options for the EU Maritime Transport System in the horizon 2008-2018 (OPTIMAR), September 2008

<sup>13</sup> COWI/DHI/DG ENV: 'Ship Dismantling and Pre-cleaning of Ships' (2007)

<sup>14</sup> A statistical overview of ship recycling, by Dr Nikos E Mikelis presented at the International Symposium on Maritime Safety, Security & Environmental Protection, Athens, September 2007.

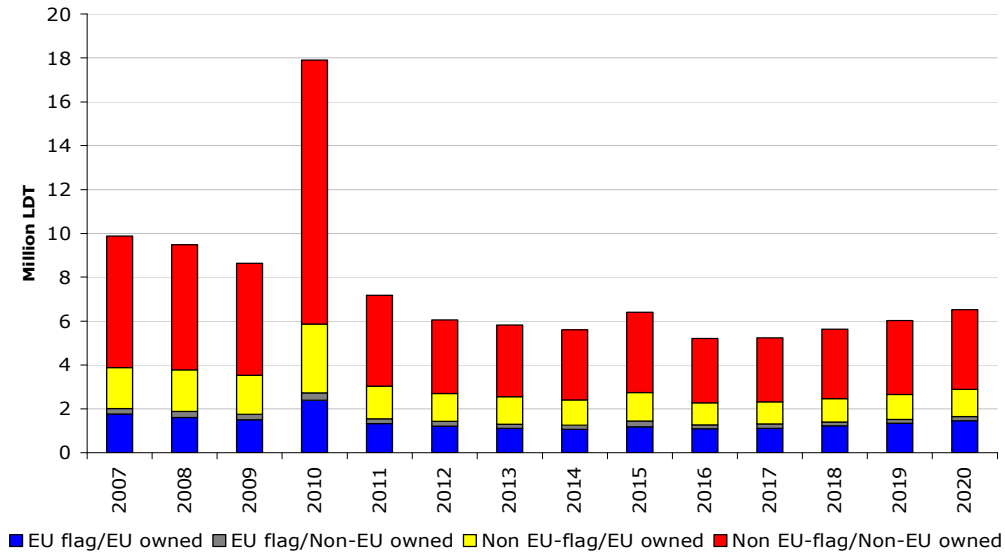


Figure 1- Future volumes of demolition by owner/flag State and year of scrap (Million LDT), 2007 COWI/DG ENV Study

From the Figure above it can be seen that the forecasted annual recycling volumes vary from 5 to 10 million LDT except in 2010 when a boom of recycling of single-hulled oil tankers is foreseen to bring the annual recycling volume up to around 18 million LDT.<sup>15</sup> The vessel types with the smallest decommissioning volumes are warships and fishing vessels. The combined projected annual dismantling volume for European warships and larger fishing vessels is approximately 70,000 LDT and compared to the merchant fleet it accounts only for a very small fraction (approximately 1%) of total dismantling.

The EU's responsibility is further emphasized in light of its pro-activity in accelerating the single hull tanker phase out. Regulation (EC) No 417/2002 of the European Parliament and of the Council of 18 February 2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers<sup>16</sup> was adopted to reduce the risk of accidental oil pollution in European waters. To this end, the purpose of the Regulation is to establish an accelerated phasing-in scheme for the application of the double hull or equivalent design requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) to single hull oil tankers.<sup>17</sup> This calls for an

<sup>15</sup> The forecast annual recycling volumes distributed on ten vessel types can be seen from Table 1 in Appendix 1 to this note.

<sup>16</sup> Regulation (EC) No 417/2002 of the European Parliament and of the Council of 18 February 2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers, OJ L 64, 7.3.2002.

<sup>17</sup> According to Regulation (EC) No 417/2002: No oil tanker is allowed to operate under the flag of a Member State, nor is any oil tanker, irrespective of its flag, allowed to enter into ports or offshore terminals under the jurisdiction of a Member State after the anniversary of the date of delivery of the ship in the year specified below, unless such tanker is a double hull oil tanker: For category 2 and 3 oil tankers:

- 2003 for ships delivered in 1975 or earlier;
- 2004 for ships delivered in 1976;
- 2005 for ships delivered in 1977;
- 2006 for ships delivered in 1978 and 1979;
- 2007 for ships delivered in 1980 and 1981;
- 2008 for ships delivered in 1982;

equivalent push towards ensuring a legally binding regime is in place in time to cater for the sharp increase in ships going for dismantling as a result of the phase out. It is predicted that in 2010 nearly 800 single hull tankers will have to be dismantled well before the Convention enters into force.<sup>18</sup> Early transposition of the Convention's key elements is crucial if it is to be ensured that the EU's role in taking action in the interests of environmental protection with respect to these tankers is not frustrated by failure to ensure the establishment of legal requirements for their safe and environmentally sound dismantling. Nevertheless, it must also be emphasized that action at EU level could also take some time to become effective and is unlikely to be in place prior to the 2010 phase out. On the other hand, EU measures could very well be in place before the 2015 phase out. Accompanied by ratification of the Convention by Member States, this could also trigger a swifter entry into force of the Convention.

It is in fact considered that a firm commitment by the EU will foster an increased support for the international ship dismantling rules and will act as an incentive for other States to ratify the Ship Recycling Convention. The EU will reinforce its role as a driving force for implementation of global standards. This influential role is also reflected in the Impact Assessment for an EU Strategy for better ship dismantling wherein it is stated that:

“The inclusion of the Convention into Community law would promote harmonised decision-making and speed up the ratification process among the Member States. In addition, early action by the EU would influence third countries much more than action by individual Member States and thus is more likely to bring the Ship Recycling Convention quickly into force.”

The EU has previously opted to transpose international conventions prior to their entry into force particularly pursuant to its goals of protecting human health and the environment. The examples described below in Section 2.3 show that EU action can have a very positive influence in ensuring timely implementation of international requirements or even to trigger action at the international level.

## 2.2 Responsibility linked to the Waste Shipment Regulation

Furthermore, the EU's responsibility with specific reference to the dismantling of ships already exists under the Waste Shipment Regulation which prohibits the export of hazardous waste from the Community to non-OECD countries. The Basel Convention on Transboundary Movements of Hazardous Wastes and their Disposal of 1989 (Basel Convention) provides for a worldwide system of prior written notification and consent for shipments of hazardous wastes between countries. An amendment adopted in 1995, which has not yet entered into force, establishes a ban on exports of hazardous waste from EU and OECD member countries to non-OECD countries. The EU transposed the Basel Convention as well as the so-called Basel Ban Amendment into its legislation and prohibited the export of hazardous waste from the Community to non-OECD countries since 1998. The prohibition is currently contained in Articles 34 and 36 of Regulation (EC) No 1013/2006 on shipments of waste.

In particular, Recital 35 of the Regulation states that:

“It is necessary to ensure the safe and environmentally sound management of ship dismantling in order to protect human health and the environment. Furthermore, it should be noted that a ship may become waste as defined in Article 2 of the Basel Convention and that at the same time it may be defined as a ship under other international rules. It is important to recall that

---

- 2009 for ships delivered in 1983;  
- 2010 for ships delivered in 1984 or later.

<sup>18</sup> European Commission, DG Energy and Transport: *Oil Tanker Phase Out and the Ship Scrapping Industry*, COWI final report, June 2004.

work is ongoing, involving inter-agency cooperation between International Labour Organisation (ILO), International Maritime Organisation (IMO) and the Secretariat of the Basel Convention, to establish mandatory requirements at the global level ensuring an efficient and effective solution to the problem of ship dismantling.”

One of the specific objectives stated in the Strategy is in fact to prevent, in line with the Waste Shipment Regulation, the export of hazardous end-of-life ships from the EU to developing countries. Ships are not exempted from waste shipment law, and decisions adopted by Parties<sup>19</sup> to the Basel Convention have recognized that a ship may become waste as defined in Article 2 of the Basel Convention and that at the same time it may be defined as a ship under other international rules.

The revised Waste Framework Directive<sup>20</sup> defines ‘waste’ as any substance or object which the holder discards or intends or is required to discard (Article 3(1)). The definition of waste in EU law centres on the act of discarding. The Strategy recognizes that this “is frequently identical to the decision of a shipowner — for example in a demolition contract — to send a ship for dismantling.” As nearly all ships contain considerable quantities of hazardous materials like oils and oil sludge, asbestos, glass wool, PCB, TBT, heavy metals in paints and others, those that go for scrapping would fall within the definition of hazardous waste as defined under Article 3(2).<sup>21</sup>

Nevertheless, as stated in the Strategy, the rules of waste shipment law are rarely applied to ships sent for dismantling. Most recycling countries — with the exception of Turkey — are reluctant to use the Basel Convention procedure of notification and consent for ships imported for scrapping. To apply the EC Waste Shipment Regulation and its export ban is difficult when a ship becomes waste outside European waters. Recent cases have also shown uncertainty on the part of some Member State authorities as to when and how to enforce the waste shipment rules in relation to suspected end-of-life ships. This was also stressed most recently by the European Parliament,<sup>22</sup> which recalled that interpretation problems persist in relation to the implementation of the Basel Convention and the circumstances in which a ship can or must be considered as hazardous waste.

A stricter application of the waste shipment requirements, in particular through strengthened monitoring and controls by national port authorities, is essential but should be further complemented by specific measures to implement as early as possible the key elements of the Convention. Indeed, once and if the Ship Recycling Convention enters into force and provided that the Parties to the Basel Convention regard it as ensuring an equivalent level of control, ships sent for dismantling could fall under the Ship Recycling Convention regime and no longer under waste shipment rules. In recent decisions<sup>23</sup> Parties to the Basel Convention noted that the duplication of regulatory instruments that have the same objective should be avoided. In other words, measures should be taken to ensure a better enforcement of the EC Waste Shipment Regulation, but there is a significant probability that it would only be a temporary solution, which would subsist during the interim period until the entry into force of the Convention.

### 2.3 Other examples of early transposition

The EU has previously opted to transpose international conventions prior to their entry into force particularly pursuant to its goals of protecting human health and the environment. This section

---

<sup>19</sup> Decision VII/26 on environmentally sound management of ship dismantling

<sup>20</sup> Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

<sup>21</sup> See *Clemenceau, Sandrien and Otopan*

<sup>22</sup> European Parliament resolution of 26 March 2009 on an EU strategy for better ship dismantling

<sup>23</sup> Decision IX/30 on dismantling of ships

provides some examples illustrating that EU action can have a very positive influence to ensure timely implementation of international requirements or even to trigger action at the international level.

### 2.3.1 Anti-fouling systems on ships

The first example relates to the IMO International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention)<sup>24</sup> which was adopted on 5 October 2001 and entered into force on 17 September 2008. Under this convention, the last date for the application of organotin paints on ships was 1 January 2003. The total phase-out of organotin antifouling coatings should have been completed by 1 January 2008. The Convention was transposed into EU legislation prior to its entry into force through Regulation (EC) No 782/2003 on the prohibition of organotin compounds on ships.<sup>25</sup> The Regulation prohibited, as of 1 July 2003, organotin compounds which act as biocides in anti-fouling systems to be applied on ships flying the flag of a Member State. As from 1 January 2008, EU ships and other ships visiting EU ports were obliged either not to bear anti-fouling systems containing such compounds, or to bear a coating that forms a barrier to such compounds leaching from underlying non-compliant antifouling system. Through early transposition, the EU was in a position to impose the AFS Convention requirements within the phase out time frame contemplated by the convention which itself only entered into force after the 1 January 2008 phase out target.

The Regulation is further supplemented, firstly, by Council Directive 76/769/EEC as amended, which prohibits the marketing and use of organostannic compounds within the EU and, secondly, by Commission Regulation (EC) 536/2008 comprising measures enabling ships flying the flag of a third State to demonstrate their compliance and procedures for control.

At this point it is pertinent to note that early transposition must be accompanied by early ratification of the Convention by EU Member States. Should the EU stop at early transposition, the entry into force of the international convention in question could be frustrated rather than promoted. This could be the case where Member States consider that having rules at EU level makes ratification of a particular convention superfluous. The EU should encourage a speedy ratification of the Ship Recycling Convention. Reference may be made to Recitals 7 and 8 of the Preamble of Regulation 782/2003 wherein it is stated:

“(7) Member States should ratify the AFS-Convention at the earliest opportunity.

(8) Member States should be put in the best possible position for a speedy ratification of the AFS-Convention. Any obstacles which might impede such ratification should be removed.”

However, some stakeholders argue that transposition itself could possibly be tantamount to an obstacle which might impede ratification and have cited the AFS Convention as an example. In fact, Recital 6 of the Preamble states that the AFS Convention will only enter into force 12 months after its ratification by at least 25 States representing at least 25 % of the world's tonnage. In EU27, a speedy ratification by the Member States would have been sufficient to make the AFS Convention enter into force. However, the AFS Convention was adopted before EU enlargement to include ten new Member States in 2004 and two new Member States in 2007. Therefore, in 2001, the criteria of 25 States representing at least 25% of the world's tonnage could not have been met by the EU alone and the EU's option of early transposition is easily justified.

---

<sup>24</sup> IMO International Convention of 5 October 2001 on the Control of Harmful Anti-fouling Systems on Ships

<sup>25</sup> Regulation (EC) No 782/2003 on the prohibition of organotin compounds on ships, OJ L 115, 9.5.2003

### 2.3.2 Accelerated phase out of single hull tankers

EU action could also lead to the elaboration and improvement of international rules. The EU has previously instigated international action in the interests of protecting the marine environment, the prime example being that of the phasing out of single hull tankers where the adoption of measures by the EU prompted the IMO to amend MARPOL 73/78<sup>26</sup> in order to apply arrangements similar to those of the EU to all oil tankers worldwide.

### 2.3.3 Compensation for victims of oil pollution damage

The EU was also instrumental in triggering higher international standards with respect to compensation for victims of oil pollution damage. The 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC),<sup>27</sup> and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage,<sup>28</sup> (the Fund Convention, which established the International Oil Pollution Compensation (IOPC) Fund), ensure that compensation is available for victims of oil pollution from ships. Following the *Nakhodka* oil tanker incident in 1997 off Japan and the *Erika* oil tanker incident off the coast of France in 1999, the IMO Legal Committee in October 2000 adopted amendments to the 1992 Protocols to the CLC and Fund Convention raising the limits of compensation payable by more than 50 per cent. For a number of States, however, the proposed increases were considered to be still too low. At EU level, a Proposal for a Regulation of the European Parliament and of the Council on the establishment of a fund for the compensation of oil pollution damage in European waters and related measures<sup>29</sup> formed part of the second package of Community measures on maritime safety. Following the sinking of the *Erika*, the Commission came to the conclusion that the existing liability and compensation arrangements failed to offer sufficient guarantees against oil pollution damage. The objective of this proposal from the Commission was to set up a supplementary fund covering liability and compensation for pollution damage caused by oil tankers, designated COPE (Compensation for Oil Pollution in European waters fund), to pay compensation to the victims of oil spills in European waters. The intention was that the COPE Fund would top up the CLC and IOPC systems in force at international level.

This proposal for a supplementary fund providing compensation whenever an oil pollution incident occurred in European waters was brought to the attention of the IOPC Fund Assembly, which in April 2000 decided to set up an Intersessional Working Group to further consider the matter. The Working Group recommended the establishment of a supplementary fund, to provide compensation over and above that currently available under the CLC and IOPC regime, thus in essence creating a third tier of compensation for pollution damage caused by oil spills. This supplementary fund is not limited geographically to Europe but covers oil spills wherever they occur, so long as it results in damage in the territory, including the territorial sea and the exclusive economic zone, of a State Party. The text of the Protocol establishing an International Oil Pollution Compensation Supplementary Fund<sup>30</sup> was approved by the IMO Legal Committee and submitted to the May 2003 conference for adoption. With the establishment of the 2003 Supplementary Fund by the IMO, the regional approach was not relevant anymore.

---

<sup>26</sup> International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL)

<sup>27</sup> International Convention of 29 November 1969 on Civil Liability for Oil Pollution Damage

<sup>28</sup> International Convention of 18 December 1971 on the Establishment of an International Fund for Compensation for Oil Pollution Damage

<sup>29</sup> COM/2000/0802 final

<sup>30</sup> Protocol establishing an International Oil Pollution Compensation Supplementary Fund, adopted on 16 May 2003

## 2.4 Legal Basis

The 1982 United Nations Convention on the Law of the Sea sets up general rules which link a ship to a State. Article 91 on the nationality of ships and Article 92 on the status of ships establishes the principle of the jurisdiction of the flag State over its ships, while Article 94 details the duties of the flag State. In particular, it lays on flag States an obligation to take necessary measures to ensure safety at sea and, in doing so, to “conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance”.

The responsibility of the flag State extends to international rules concerning pollution by ships. In particular, Article 217 requires flag States to ensure compliance by vessels flying their flag with applicable international rules as well as national laws and regulations on the prevention, reduction and control of pollution of the marine environment from vessels, and to provide for the effective enforcement of these rules and requirements. They must prevent their ships from sailing unless they are in compliance with international requirements, in particular those applicable to design, construction and equipment of vessels. The flag State must ensure that its ships carry on board the relevant certificates and that they are periodically inspected in order to verify that such certificates are in conformity with the actual condition of the vessels.

Apart from the competence exercised by the flag State, the 1982 Convention and subsequent practice have also granted powers to the port and coastal State in relation to environmental protection rules. In ports, the coastal State exercises jurisdiction and can control compliance with international rules. The coastal State control has extended in the recent years as a way to compensate the lack of control exercised by flag States.

Therefore, under international law, Member States will have jurisdiction over safety and environmental aspects of shipping activities, and, as a consequence, the EC is entitled to exercise most of these competences, given its own broad competence over maritime security and environmental affairs.

Community competence to take action on ship dismantling matters comes principally from the provisions of the EC Treaty related to the protection of the environment. Article 174(1) of the EC Treaty gives competence to the EC to preserve, protect and improve the quality of the environment and protect human health, which correspond to the key objectives of a legal instrument aiming at addressing the environmental, health and safety risks associated with ship dismantling practices.

On the other hand, treaty provisions on common transport policy (Articles 70, 71 and 80(2)) give the Community a right to take measures to improve the safety of transport at sea, which will be affected by the ship-related elements of the Ship Recycling Convention (e.g. the Inventory of Hazardous Materials that ships will have to carry).

The Court of Justice has always considered that “the legal basis on which an act must be adopted should be determined according to its main object.”<sup>31</sup> The decisive factor should thus be the preponderant objective of the measure. The choice of the legal basis for a measure is not subjective and should be based on “objective factors which are amenable to judicial review”,<sup>32</sup> in particular, the aim and content of the measure in question.<sup>33</sup>

Measures relating to ship dismantling should be based on Article 174, as the Convention clearly aims at the protection of human health and the environment. This derives logically from the wording of the

---

<sup>31</sup> Case C-377/98, *Netherlands v. European Parliament and Council* [2001] ECR I-7079, para.1

<sup>32</sup> Case 45/86, *Commission v. Council* [1987] ECR 1439, para. 5

<sup>33</sup> Case C-300/89, *Commission v. Council* [1991] ECR I-287, para. 10

recitals to the Convention, which refers to the growing concerns about safety, health, the environment and welfare matters in the ship recycling industry and to the Rio Declaration on environment and development.<sup>34</sup> The ninth recital states that the Convention aims to “effectively address, in a legally-binding instrument, the environmental, occupational health and safety risks related to ship recycling, taking into account the particular characteristics of maritime transport and the need to secure the smooth withdrawal of ships that have reached the end of their operating lives”. Environmental considerations are thus a key objective and should ‘take into account’ the particular characteristics of maritime transport. This is further confirmed in Article 1 which lays on the Parties a general obligation to give full and complete effect to the Convention provisions in order to prevent, reduce, minimize and, when practicable, eliminate adverse effects on human health and the environment caused by ship recycling operations, and enhance ship safety, protection of human health and the environment throughout a ship’s operating life.

Furthermore, this approach is reflected in the new Integrated Maritime Policy for the European Union,<sup>35</sup> which provides for a range of actions to address in a coherent and comprehensive manner sea-related economic and sustainable development issues. Early transposition of the Ship Recycling Convention relates precisely to the actions planned in terms of environmental protection to implement the new Strategy, as actions foreseen in the field of environment include “taking duly into account the ongoing work at international level, make proposals for dismantling obsolete ships in an efficient, safe and environmentally sustainable manner”.

However, the aspects linked to transport are equally important. It should be noted here that although Article 80(1) of the EC Treaty states that the transport provisions expressly apply to inland transport and therefore not to maritime transport, Article 80(2) provides that the EU Council “may ... decide whether, to what extent and by what procedure appropriate provisions may be laid down for sea and air transport”. Thus the Council is authorized to adopt legislative measures applying to maritime transport.

This has been confirmed by the ECJ in Case C-440/05:

“57. As evidenced by the Court’s case-law, far from excluding the application of the EC Treaty to sea transport, Article 80(2) EC merely provides that the specific rules of the Treaty relating to the common transport policy, which are set out in Title V thereof, will not automatically apply to that sphere of activity.

58. Since Article 80(2) EC does not lay down any explicit limitations as to the nature of the specific common rules which the Council may adopt on that basis [...], the Community legislature has broad legislative powers under Article 80(2) EC and is competent – by virtue of that provision and in keeping with the other provisions of the EC Treaty relating to the common transport policy, in particular Article 71(1) EC – to lay down, inter alia, ‘measures to improve transport safety’ and ‘any other appropriate provisions’ in the field of maritime transport.”

Early transposition of the Convention requirements should be regarded as being essentially aimed at improving maritime safety, as well as environmental protection, and could also be validly adopted on the basis of Article 80(2) EC. In particular, the fact that this legislative initiative falls under the new Integrated Maritime Policy clearly shows the link with the maritime transport competence of the EC. Improvement of maritime safety also constitutes a key objective of this legislative initiative in relation to the ship-related elements of the Convention such as the Inventory of Hazardous Materials that ships

---

<sup>34</sup> Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-4 June 1992, Annex I

<sup>35</sup> COM(2007) 575 final

will have to carry throughout their life time, or provisions relating to movements of ship going to recycling facilities.

Another key factor to be considered is that the future EU legislation would transpose an IMO Convention. All European legislation transposing IMO Conventions to date has as a legal basis Article 80(2) of the Treaty.

These arguments call for a dual legal basis, which would be possible given that the decision procedure is similar under both Articles 174 and 80(2). Both articles are governed by the procedure laid down in Article 251 of the Treaty, that is, qualified majority. Reference may also be made to the 'Proposal for a Regulation of the European Parliament and of the Council on the establishment of a fund for the compensation of oil pollution damage in European waters and related measures' that would have established the COPE Fund. The proposed Regulation had as its legal basis safety in maritime transport and environmental protection (Article 80(2) and 175(1) of the Treaty) and would also have been governed by the Article 251 procedure.

## **2.5 Consequences of no EU action**

Action or non-action by the EU can have an important influence on the ratification process and the effectiveness of the Ship Recycling Convention in practice. If the EU does not act, this risks being seen by the international community as a sign that the ship dismantling problem is of low priority, and ratification by Member States and third countries is likely to take place with additional delays. If the EU, on the other hand, takes action, in accordance with the provisions of the Ship Recycling Convention, this would carry weight in the international arena and could speed up the entry into force of the Convention. Experience with IMO conventions such as MARPOL and AFS has shown that third countries frequently ratify and implement an international agreement after the EU has made its rules binding for all ships within European waters.

The general implications of the EU taking no action to transpose the Ship Recycling Convention are outlined below. No such action would in essence constitute a baseline scenario and would entail:

- Almost all initiative in implementing the Ship Recycling Convention would be left to Member States, including the exercise of sufficient influence on other flags and recycling States for the Convention to enter into force
- No transposing measures at EU level - and no amendments to the Waste Shipment Regulation unless the parties to the Basel Convention consider that the Ship Recycling Convention does provide for an equivalent level of control
- Transposition of the Convention, including making the Inventory of Hazardous Materials and the Ready for Recycling Certificate mandatory for shipowners would depend on Member States' legislation.
- Applying the EC Waste Shipment Regulation and its export ban to end of life ships until the Ship recycling Convention enters into force and possibly beyond. Different options for improving enforcement of the Regulation may be considered, e.g. the strengthening of monitoring and controls by national port authorities and/or the preparation of guidelines by the Commission.
- Occasional research and pilot projects to assess developments and promote better ship dismantling technology, e.g. under the 7th Framework Programme for research.

### ***Briefly about scenarios for entry into force and ratification practices among the Member States***

Experience with IMO conventions suggests that it takes on average six years from adoption until entry into force of a convention. In the case of the Ship Recycling Convention there is some expectation that the waiting period might stay below average and the Convention could come into force by 2015. However, given the conditions for entry into force of the Ship Recycling Convention<sup>36</sup> it is not unlikely that the waiting period would be longer. The Convention may therefore only enter into force as late as 2020 or 2025.

As indicated in the Impact Assessment for an EU Strategy for better ship dismantling,<sup>37</sup> without EU action it is probable that several Member States will, by their own decision, ratify the Convention and transpose it into their national legislation within the next two to four years. However, the statistics on ratification of IMO instruments show differing practices among the Member States and altogether considerable delay. The AFS Convention of 2001, for instance, was ratified four years later only by a minority of five Member States. Implementation of the Ship Recycling Convention in the EU by purely national legislation is thus bound to be incoherent and partly delayed.<sup>38</sup>

### ***Two parallel sets of rules may create legal uncertainty***

Although stricter application of the waste shipment requirements, in particular through strengthened monitoring and controls by national port authorities, would be essential to meet the objectives of the EU Strategy for better ship dismantling, some of the current problems of enforcement of the Waste Shipment Regulation with regard to end-of-life ships and the decommissioning of a ship outside EU waters will remain unsolved until the Ship Recycling Convention enters into force.

As indicated above in section 2.2, once (and if) the Ship Recycling Convention enters into force and provided that the Parties to the Basel Convention regard it as ensuring an equivalent level of control, ships sent for dismantling could fall under the Ship Recycling Convention regime and no longer under waste shipment rules. As stated above, the Parties to the Basel Convention have noted duplicating regulatory instruments having the same objective should be avoided.

Therefore, it does not appear practicable to implement both sets of rules simultaneously with respect to the same ship. Such situation would lead to confusion and legal uncertainty. It could create practical problems jeopardising the very objective of these rules by preventing the proper recycling of ships.

### ***Environmental, social and economic implications***

Taking no early or additional action at EU level would mean, that the current trends in ship dismantling would continue unabated, until the new international regime is in place and the Ship Recycling Convention is ratified by Member States and enters into force.

Furthermore, the large number of single hull tankers to be phased out in 2010 and 2015, as a consequence of the EU instigated international action, would most likely be recycled in South Asia under unacceptable conditions from the point of view of health, safety and environmental protection. In this context, it should be underlined that it indeed was the adoption of measures by the EU that prompted the IMO to amend MARPOL 73/78<sup>39</sup> in order to apply arrangements similar to those of the EU to all oil tankers worldwide.

---

<sup>36</sup> See Section 2.6.1 p.17

<sup>37</sup> COM (2008)767 final

<sup>38</sup> COM (2008)767 final p. 25

<sup>39</sup> International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL)

Due to the high freight rates in 2007 and 2008, the phase out of ships was much lower than forecasted. Consequently, a backlog developed. This backlog will probably be ended over the coming years as the freight rates are currently very low, which has made ship dismantling an attractive option again with a resulting booming ship recycling market (in deadweight terms, more was scrapped in the first four months of 2009 than in any of the three years from 2005-2007)<sup>40</sup>. Therefore, the numeric forecast is probably not totally accurate for the coming years. Nevertheless, it is safe to assume that the relative share that can be calculated from the forecast is not affected by this inaccuracy as the ship business, irrespective of ownership or flag State, reacts in the same way to the fluctuating freight rates.

From the forecast it can thus be calculated that in the period from 2010 to 2015 EU-flagged vessels (both EU-owned and non EU-owned) would account for 20% of the scrapped tonnage. In the same period, EU-owned ships (both EU-flagged and non EU-flagged) would account for 37% of the total scrapped tonnage of around 49 million LDT covering all ships in the period from 2010 to 2015.

The pollution of water, soil and habitats in South Asia would at least remain unchanged and increase when peaks of ship scrapping due to the phasing out of single hull oil tankers reach the South Asian beaches, probably around 2010 and 2015. The likelihood of natural disasters might increase due to the further destruction of coastal mangrove forests in Bangladesh. The negative effects of various materials on board ships for the aquatic environment and for climate would continue, in so far as they are not already banned by other legal instruments, as indicated in the Impact Assessment for an EU Strategy for better ship dismantling.<sup>41</sup> Likewise, the high safety hazards and accident rates for workers in South Asian shipbreaking yards would remain unchanged and increase in peak times.

Further details on health, safety and environmental issues associated with ship recycling operations are annexed to this note in Appendix 2, although it should be noted that public data on health and safety is very limited. Additional / updated quantitative information on the potential impacts of the various policy options will be further analysed in a study to support the impact assessment of a new legislative proposal on ship dismantling.

After transposition of the IMO Ship Recycling Convention into the national law of flag States and recycling States, positive effects are expected in a step by step process. Notably the obligation to carry an Inventory of Hazardous Materials (IHM) would become applicable for new ships, which are defined as ships for which the building contract is placed after that point in time or for which the delivery is 30 months later. For existing ships, the IHM requirement would become mandatory not later than five years after the Convention's entry into force.<sup>42</sup>

## **2.6 Issues linked to EU early transposition**

The rules adopted at EU level will be only regional. Given the global nature of the shipping industry, operating between jurisdictions and without barriers to trade of near-end-of-life-ships, it is generally agreed that any action or regulation to address ship dismantling will be effective only if it is agreed at an international level. This being said, it should be underlined that the EU is not undertaking actions in isolation but with a view to facilitating and promoting the implementation of the Ship Recycling Convention. During the interim period before the Convention enters into force, the EU regime would primarily apply only to ships flying the flags of EU Member States and to ship recycling facilities in the jurisdiction of Member States. There are some possibilities for extending the application of EU requirements to facilities located outside the EU e.g. through a requirement to shipowners to comply with minimum criteria for their ship recycling or through Port State control, some requirements could

---

<sup>40</sup> "Ship scrap prices could plummet to \$100 per ldt", Lloyd's List 8 May 2009

<sup>41</sup> See COM(2008)767 final p. 23.

<sup>42</sup> See also section 3 on implications of specific measures.

apply to ships calling at EU ports such as the requirement to have on board an IHM through amending Directive 95/21/EC on Port State Control in order to include in the list of certificates and documents that have to be verified by inspectors on board of ships, a list of hazardous materials as defined under the Convention.

### **2.6.1 Advantages of an EU early transposition**

An early transposition of the Ship Recycling Convention presents two main advantages: it allows applying without delay the requirements of the Convention and ensuring a consistent implementation among Member States.

#### ***A more timely response to the grave concerns arising out of current ship dismantling practices***

Early transposition has the advantage of providing a more timely response to the grave concerns arising out of current ship dismantling practices. The question of timing is directly linked to the differences in the IMO and EU processes. In this respect, the main set back associated with IMO Conventions, is that they take on average six years to enter into force. Some IMO Conventions have not yet entered into force at all, for example, the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea,<sup>43</sup> was adopted on 3 May 1996 but has not yet received the ratifications necessary for its entry into force. Another example is the Torremolinos Protocol of 1993 relating to the Torremolinos International Convention for the Safety of Fishing Vessels, adopted on 2 April 1977 and also not yet in force.

In order to enter into force, Article 17 of the Ship Recycling Convention requires the signature of at least 15 States whose combined merchant fleets must constitute at least 40 per cent of the world's merchant shipping. In addition, the combined maximum annual ship recycling volume of these States during the preceding 10 years must constitute not less than 3 per cent of the gross tonnage of the combined merchant shipping of the same States. The Convention will enter into force 24 months after the date on which the aforementioned conditions are met. These particular entry into force provisions imply that ratification by both major flag and recycling States will be needed for the Convention to enter into force.

More specifically, the Ship Recycling Convention contains separate deadlines for compliance with the various requirements meaning that the full effect of the new international regime is not to be expected before 2020 at the earliest. On the other hand, the adoption of EU legal instruments is a less complex and lengthy process allowing for a more immediate response to an urgent issue. Some stakeholders have held that waiting for implementation of the new international instrument is unacceptable when shipbreakers continue to be killed or injured at work and when environmental degradation increases. With the early transposition of some key requirements of the Convention, the EU can send a strong political signal regarding its commitment to the clean and safe dismantling of ships with a close link to the EU.

Various stakeholders support an early ratification, transposition and implementation of the Convention. An early ratification by the EU Member States would contribute significantly to meeting the entry into force conditions although ratification by these Member States alone would not suffice and the support of at least another three major flag States and two major recycling States would be necessary. It is suggested that the Commission should seek to promote ratification among the Member States and also use its political influence to encourage recycling States to take similar action in order

---

<sup>43</sup> International Convention of 3 May 1996 on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea

that sufficient global ship recycling capacity be maintained. For example, in order to increase recycling capacity, one stakeholder proposes that once the EU instrument transposing the Convention requirements enters into force, the EU should foresee the signing of agreements with third countries. Such agreements should follow the system set up by the Hong Kong Conference. It should however be noted that such agreements should be compatible with the existing legislation applicable to end of life ships that are waste.

The question of timing also impinges on the choice of legislative instrument that would transpose the Convention's requirements. If the early transposition of the Convention at EU level is to provide the advantage of immediacy, the direct applicability of a Regulation makes it the natural choice in terms of timing. According to Article 249 of the EC Treaty, a "regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States."

Their direct applicability means that Regulations do not have to be transposed into national law in order to become applicable in the individual Member States. The Regulation would immediately become part of the national law of all Member States and must be complied with in the same way as national law. It can be relied upon by individuals in national courts that may in turn enforce the provisions of the Regulation. Since the provisions of a Regulation remain provisions of Community law they have precedence over conflicting national norms. On the other hand, a Directive has direct effect. It is "binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods" (Article 249 EC Treaty). Whereas a Regulation applies throughout the EU directly, a Directive requires individual Member States to transpose its requirements into national law to implement it. This has the disadvantage of being a time consuming process involving the adoption of national laws. Moreover, although the aim of a Directive must be properly secured in each Member State with the objective of harmonising their laws, unlike with a Regulation, the implementation will not be uniform.

The latter fact is of considerable relevance when considering that the uniform enforcement of rules within EU waters forms a central part of the EU's maritime policy. Amongst the principal advantages of adopting an EU instrument on ship recycling is that of uniform application and enforcement of global standards across 27 Member States. Conversely, it may be argued that an early transposition in the form of a Directive would be more appropriate in diminishing the risk of Member States applying the Convention without ratifying it. However, this risk can also be reduced through unequivocal encouragement at EU level for Member States to ratify the Convention.

### ***Ensuring consistent implementation among Member States***

It is generally agreed that the ship dismantling problem is international in dimension and consequently a degree of uniformity is necessary if an effective solution is to be achieved. Whilst all 27 Member States are members of the IMO,<sup>44</sup> adoption of the key elements of the Ship Recycling Convention by the EU will guarantee uniform rules in all Member States rather than each taking individual measures at national level. Whilst Member States may ratify the Convention and incorporate it into their national legislation, implementation by national legislation alone is likely to be incoherent and delayed. On the other hand, the adoption of an EU Regulation would establish a consistent approach across all Member States ensuring a level playing field and uniform enforcement. Regulations lay down the same law throughout the Community and apply in full in all Member States. Regulations must be given effect to by all Member States in their entirety. However, it should be noted that whether or not transposition is ensured through a Directive or a Regulation, control measures to ensure compliance with legal requirements remain under the competence of each Member State, which constitutes an obstacle to uniformity of enforcement level.

---

<sup>44</sup> The EU itself is not a member of the IMO. The Commission has observer status.

Furthermore, the adoption of an EU Regulation would be an incentive for ratification of the Convention by Member States, which, as stated previously, could trigger faster entry into force at international level. As a matter of fact, when a Convention is close to entering into force, flag States would tend to sign the Convention, thus having equivalent requirements and avoiding delays for their ships when they call at the ports of States which are already Parties to the Convention. It is important to note here that if the EU opts for an early transposition of the Convention, it would be preferable to transpose its requirements in their entirety. If only selected key requirements are transposed, there may be inconsistencies between the Member States obligations at EU and international level or incoherent application between those Member States that have ratified the Convention and thus have obligations on the international level and those Member States that have not ratified the Convention and are thus bound only by the key requirements transposed by the EU. Some stakeholders have in fact questioned the merit of implementing only certain elements of the Convention in EU law, stressing the importance of ensuring that the Convention is seen as the key legislative instrument on the safe and environmentally sound recycling of ships. Transposing only certain aspects of the Convention on a regional basis will establish double standards on a global basis and may discourage States from ratifying and implementing the IMO Convention.

If the principal advantage of uniformity is to be secured, a Regulation covering all the Convention's requirements should be the transposing instrument. A Regulation is binding in its entirety, whereas Member States will have the choice as to the details of implementation of a Directive's requirements. As a result, in the case of a Directive, arrangements at the national level will be harmonized but not necessarily uniform across the different Member States. The aim of a Directive is to ensure that the material conditions in all Member States are the same and that the various national laws are not in conflict or contradiction rather than strict unification of the law.

Bearing in mind that the premise for the early transposition of the Convention is that of enforcing international standards, the EU is in a position to do so in a timely and uniform manner by means of a Regulation having the advantage of 'simultaneous and uniform application in the whole Community'.<sup>45</sup> Adoption of EU measures could thus be more immediate and in particular, prior to the increase in ships to be recycled pursuant to the single hull tanker phase out.

Moreover, the Regulation is the instrument typically used by the EU in the maritime field.<sup>46</sup> The advantages of a Regulation are drawn upon in Recital 12 to Regulation 782/2003 on anti-fouling systems which states:

"A Regulation is the appropriate legal instrument as it imposes on shipowners and Member States, directly and within a short time frame, precise requirements to be implemented at the same time and in the same manner throughout the Community..."

## **2.6.2 Potential problems**

### ***Reflagging of EU vessels***

The main issue raised by a regional approach is that the existence of a different regime at EU and international level could lead to a reflagging of ships, whereby ships would simply change their flag and exploit the available legal loopholes.

---

<sup>45</sup> Case 39/72 *Commission v Italy* [1973] ECR 101, [1973] CMLR 439

<sup>46</sup> E.g. Regulation 417/2002, Regulation 782/2003

Strict regulation of EU-based recycling facilities already exists as these fall within the scope of general rules regarding labour and environmental standards. From an economic point of view, there is very little incentive to choose green recycling in Europe or elsewhere compared to standard ship breaking in Asia due to fact that it is more costly. Accordingly, green recycling facilities are not able to pay as high a price for the scrapped ships as the Asian recycling facilities. For this very reason, no considerable ship recycling is currently taking place within the EU. A legislative instrument covering only EU-flagged ships would risk being ineffective as long as open registers exist and are easily accessible unless supplemented by a funding mechanism (ship dismantling fund) intended for closing the financial gap between the conventional and green dismantling facilities. This would provide proper incentive for the shipowners to choose a green ship recycling facility.

Change of flags, reflagging, before recycling of vessels to evade certain legal regimes and obligations is a well known situation today. Furthermore reflagging to non-party substandard flags for the oldest part of the fleet is a reality for many other IMO Conventions. The extent of reflagging of EU-owned vessels to evade a future EU legal recycling regime will depend primarily on the eventual loss in net revenue from scrapping the ships in environmentally sound dismantling facilities in accordance with the Convention requirements compared to traditional scrapping. Today a ship recycling facility in e.g. Bangladesh would offer the shipowner or the intermediary cash buyer approximately 250 USD/LDT. The additional costs of specific measures and the eventual loss of net revenue for the EU shipowner are estimated in Chapter 3. The risk of reflagging of EU ships in order to evade an extra economic burden on shipowners has been highlighted by many stakeholders. Reflagging could be a consequence of the introduction of an EU requirement for compliant ship recycling as well as a potential result of the lack of availability of such compliant recycling capacity within the EU.

Reflagging of EU vessels caused by early transposition of the Ship Recycling Convention by the EU could be an issue for the period until the Convention entered into force, which is not expected before 2015 at the earliest. Whilst it is difficult to quantify the risk of reflagging a worst case scenario could be a total reflagging of all EU-flagged vessels at the time of recycling. Applying the 2007 COWI/DHI/DG ENV<sup>47</sup> forecasted scrapping volumes of EU flagged vessels (approximately 1.6 million LDT/year),<sup>48</sup> the upper limit for the potential reflagging volume, a total reflagging of all EU vessels would thus be 8 million LDT, should the EU opt for early transposition of the Ship Recycling Convention. However, the actual reflagging volume is expected to be significantly lower, given that there are also some significant advantages of having an EU flag that would act as an incentive not to reflag, e.g. common safety standards, reputation in terms of compliance with environmental, health and safety requirements.

### ***Redirection of transport to non-EU ports***

Furthermore, early transposition could also result in the redirection of transport to non-EU ports in order to avoid controls exercised by port States. In general, this is only considered as a potential problem for smaller vessels operating exclusively along the coasts of Europe with a lot of port calls.<sup>49</sup> In order to fund compliant recycling of EU ships, it is estimated that an EU port fee of 0.03 EURO/GT would be necessary. This amounts to 1.5-12% of the existing port fee in the EU. Although this is not a negligible figure, it is not considered to be large enough to result in a significant redirection to non-EU ports. Nevertheless, it will still constitute a considerable burden on smaller EU-inland vessels with many EU port calls.

---

<sup>47</sup> COWI/DHI/DG ENV: 'Ship Dismantling and Pre-cleaning of Ships' (2007)

<sup>48</sup> The future volumes of demolition by owner/flag state and year of scrap have been described in further detail in Appendix 1, table 2.

<sup>49</sup> It is noted that information as to the number of ships calling at EU ports is not publicly available and can only be obtained through different commercial databases.

### *Ensuring green ship recycling capacity*

Another related issue of early EU transposition is that of ensuring "compliant" or green ship recycling capacity. EU capacity for safe recycling is currently insufficient for the potential phase out volume of Member State flagged merchant vessels and the capacity cannot be established in the short term. Therefore, capacity needs to be available or established elsewhere and it must be ensured that there is not a shortage of dismantling facilities. As mentioned above, a few stakeholders have mentioned the risk of reflagging of EU ships as a potential result of lack of availability of such compliant recycling capacity in the event of early EU transposition.

The scrapping quantity observed in the market is merely the volume provided at that specific point in time to match demand. In the 2004 COWI/DG TREN study<sup>50</sup> it was concluded that the projected rising scrap volumes due to phasing out of single hull oil tankers could be absorbed by the ship breaking capacity of the beaches and breaker yards in Asia. The scrapping industry in Asia responds quickly to new market conditions. The 2007 COWI/DG ENV study<sup>51</sup> reported that there was already green recycling capacity available in Asia (and other places around the world) and that a number of green recycling facilities were under establishment. While the existing green capacity would most likely not be sufficient to comply with demand if a regulation calling for safe and environmentally sound dismantling of ships with a strong link to the EU was implemented, the 2007 COWI/DG ENV study also reported that there is a huge potential for upgrading existing conventional scrapping facilities in Asia to green facilities and that investments needed are relatively limited. Furthermore, the study stated:

“There is no advanced technology associated with ship recycling and safe recycling of ships can take place anywhere in Europe or in upgraded “green” facilities elsewhere in the world. However, the willingness of the recyclers to invest in facilities delivering “green” recycling is based on their expectations for the market. Today, one of the primary barriers to the economic feasibility of a “green” yard is how to ensure a steady supply of vessels to the facility, if the not so eco-friendly yard next door or in a neighbouring country offers to pay 100 USD more per LDT?”

There are no technical constraints for establishing green capacity. Consequently, it is assessed that, if a stable demand for safe and environmentally sound dismantling is created; the industry will establish sufficient capacity to meet the demand either in Asia or elsewhere in the world.

In the framework of early transposition, a potential problem with establishing compliant recycling capacity outside the EU, e.g. in South Asia, is that the Convention leaves it to each Party to “...establish a mechanism for authorizing Ship Recycling Facilities with appropriate conditions to ensure that such facilities meet the requirements of this Convention”.

---

<sup>50</sup> COWI/DG TREN: ‘Oil Tanker Phase Out and the Ship Scrapping Industry’ (2004)

<sup>51</sup> COWI/DHI/DG ENV: ‘Ship Dismantling and Pre-cleaning of Ships’ (2007)

At the time of early transposition such mechanisms will most likely not be available in South Asian countries, therefore EU will have to establish their own mechanism for "approving" recycling facilities in other countries. Moreover, most of the guidelines associated with the Convention have not yet been completed. Some are expected to be finalised before the IMO Marine Environment Protection Commission (MEPC) 60 in March 2010. This could result in the necessity for the EU to develop its own mechanisms and requirements for ensuring that environmentally sound recycling is applied at ship recycling facilities. One solution for such a mechanism could be to build on the already developed model for an European integrated management system (IMS) for certification and audit of ship recycling facilities to demonstrate safe and environmentally sound recycling of ships, as proposed in the 2008 COWI/Litehauz/EMSA Study.<sup>52</sup> The study establishes the framework for a certification scheme that goes beyond the existing standards, e.g. EMAS, ISO 14001 and OHSAS 18001, and builds on the Ship Recycling Convention and planned specific ISO standard 30001 for ship recycling facilities (see Section 3.2.1 for more details).

Several of the consulted stakeholders are however questioning the effect of a business-to-business voluntary certification and audit scheme. A number of these are arguing that such scheme should instead be mandatory, with some encouraging a global mandatory scheme and others referring to a mandatory scheme for the entire European Union. Some stakeholders argue that a certification and audit scheme could result in potential obstacles for the EU fleet in terms of legal and sovereignty issues from the recycling States. A few stakeholders consider that an audit and certification scheme should rely on the IMO Convention with only one stakeholder expressing concerns that an EU system would introduce an "alternative layer" of auditing and certification. Finally, a few stakeholders are of the opinion that such EU rules could result in reflagging of EU ships as a result of lack of compliant recycling capacity.

Furthermore, the problem of reflagging could hinder the development of green recycling capacity, as the scrapping industry would recognise this opportunity for circumvention. This would imply that the scrapping industry would not trust that a stable demand for safe and environmentally sound dismantling is created and that they would thus not risk investing in establishing green facilities.

Consequently, it is important to create a viable incentive system to ensure that shipowners would willingly switch to use facilities in line with acceptable standards. One way to ensure this would be to establish a funding mechanism for closing the financial gap between today's conventional breaking method and environmentally sound and safe recycling. This is where the idea of a ship dismantling fund comes into play, as further elaborated under Section 3.2.2.

Finally, it can be argued in general that early transposition will mean that the EU Member States will have less time to adapt themselves to the ship dismantling requirements, the time frame for implementation of the new rules being shorter than that which would exist between adoption and entry into force of the IMO Convention.

### **2.6.3 The question of scope**

The Ship Recycling Convention applies to ships entitled to fly the flag of a Party or operating under its authority and to Ship Recycling Facilities operating under the jurisdiction of a Party (Article 3(1)). The Convention exempts from its scope:

- Warships, naval auxiliary, or other ships owned or operated by a Party and used only on government non-commercial service (Article 3(2));

---

<sup>52</sup> COWI/Litehauz/EMSA, 'Certification of Ship Recycling Facilities', 2008

- Ships of less than 500 GT or ships operating throughout their life only in waters subject to the sovereignty or jurisdiction of the State whose flag the ship is entitled to fly (Article 3(3)).

However, each Party must ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with the Convention.

One of the actions proposed by the Commission in its Strategy is to further assess the option to include in the ship recycling measures rules for the clean dismantling of warships and other government vessels. As regards the possible extension of the Convention rules to small ships and domestic transport in the EU, this is not considered to be an urgent matter by the Strategy as these ships do not normally go for dismantling to Asian facilities, and significant environmental and safety risks caused by their recycling in the EU are not apparent. Moreover, their inclusion in EU early transposing measures would place a significant economic burden on small vessels without changing the current recycling practices. These vessels are already recycled under acceptable conditions in Europe and Turkey as the costs of transporting these vessels to Asia outweigh the relative price difference for end-of-life ships in Asia and Europe.

Stakeholders have emphasized that extending the scope is unlikely to have a noticeable effect on the recycling habits of the EU's smallest vessels. These vessels are mostly pilotage ships and offshore supply vessels. Imposing additional requirements would disadvantage them in terms of international competition or be an incentive for them to register under non EU flags. Most importantly, the potential impact of such an extension would most likely fall on fishing vessels and smaller coastal vessels. It would lead to additional administrative costs for owners of smaller fishing vessels without clear environmental gain. The stakeholders stressed that careful consideration should be given to the operational, financial and administrative burden of including small vessels as well as the total recycling capacity that would be required. In any case, should the scope be extended to such vessels, a lower limit would need to be set up in order to cater for vessels such as yachts, pleasure crafts and canoes.

Both the Strategy and its Impact Assessment consider the most serious exemption to be that for warships and government vessels on non-commercial service, on account of their relatively high contamination with asbestos and other hazardous materials. It is argued that whereas the IMO Conventions typically exempt government vessels on non-commercial service from their scope owing to concerns of national sovereignty, "the EU is not a priori prevented from laying down environmental and safety rules for state-owned vessels. Article 296 of the EC Treaty in particular does not rule out EU action, but allows for such an exemption only in exceptional and clearly defined cases if this is necessary for the protection of Member States' essential security interests which are 'connected with the production of or trade in arms and war material'. However, in so far as the IMO Convention regulates also the design, construction and operation of ships (for instance requiring an Inventory of Hazardous Materials), interests of military secrecy would have to be taken into account."

Therefore, although extending the scope of the Convention in an EU transposing instrument is not *per se* ruled out and Article 3(2) of the Convention requires Parties to ensure that exempted ships act in a manner consistent with the Convention, the matter is not clear cut. This is evidenced in the stakeholder responses where different views were expressed. Some have argued for the inclusion of such vessels in the scope of an EU regulation. Provided that they are allowed to use certified facilities in third countries, this would increase the demand for clean recycling and contribute to the improvement of recycling conditions in these countries. Other stakeholders argued that all military and government vessels should be dismantled within the EU as it could make the existence of EU dismantling facilities more economically sustainable. The most significant advantage of extending the scope to these vessels is generally considered to be symbolic, namely, a demonstration of commitment by EU Member States to fully implement the Convention's requirements whilst building a level of expertise on the matter

from both a shipping and recycling perspective. This would avoid possible discrimination between private and State-owned vessels and thus contribute to a better image of public authorities that should play an exemplary role. Extending the scope is concordant with the Member State duty to ensure clean dismantling of all their vessels.

Some stakeholders have also noted that warships and other government vessels on non-commercial service will typically follow the requirements of international conventions even though they do not actually fall within its scope of application. It is therefore not considered crucial to specifically include these ships within the scope of EU measures and depart from that of the Ship Recycling Convention.

Furthermore, it must be recalled that port State control would play a crucial role in ensuring effective control and enforcement of EU rules on ship recycling. Council Directive 95/21/EC of 19 June 1995 concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port State control) excludes from its scope fishing vessels, ships of war, naval auxiliaries, wooden ships of a primitive build, government ships used for non-commercial purposes and pleasure yachts not engaged in trade. With respect to ships of a gross tonnage below 500, Member States must apply the applicable requirements of a relevant Convention and, to the extent that a Convention does not apply, must take such action as may be necessary to ensure that the ships concerned are not clearly hazardous to safety, health or the environment. Therefore, even if the EU measures on ship recycling were to be extended to government vessels, these would not be subject to port State control. This matter could not be remedied by means of an amendment to the port State control Directive to include within its purview the Ship Recycling Convention. Beyond the fact that the Convention excludes government vessels used for non-commercial services from its scope, these vessels have State immunity and can therefore never be subjected to the jurisdiction of a foreign State.

It is also relevant to refer to other instances where the EU has transposed IMO Conventions into Community law. Regulation (EC) No 782/2003 on the prohibition of organotin compounds on ships, transposing the IMO's AFS Convention, reproduces the scope of the AFS Convention in its entirety and maintains the same exemptions. Article 3(2) of Regulation 782/2003 exempts from its scope "any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service." This reproduces the wording of Article 3(2) of the AFS Convention.

Likewise, Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-source pollution and on the introduction of penalties for infringements contains the exact same exemptions from scope as MARPOL 73/78, the IMO Convention it transposes. Article 3(2) of Directive 2005/35/EC states that it applies to "discharges of polluting substances from any ship, irrespective of its flag, with the exception of any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service." Article 3(3) of MARPOL73/78 states that it does not apply to "any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being only on government non-commercial service."

Therefore, it is concluded that typically the same exemptions from scope found in the relevant IMO Convention are transposed into EU legislation. Small ships (because of their inability to actually travel to Asia for dismantling) and warships (notably because of public pressure) are usually dismantled within the OECD. Furthermore, it is relevant to point out that the forecasted volume of EU warships to be scrapped is fairly limited. The forecast in the 2007 COWI/DG ENV study<sup>53</sup> indicates a total of

---

<sup>53</sup> COWI/DHI/DG ENV: 'Ship Dismantling and Pre-cleaning of Ships' (2007)

400,000 LDT to be scrapped over the entire period from 2007-2010. This accounts for only 0.4% of the total EU scrap volume for that period.

In view of the above, it is probably more feasible to continue to regulate the dismantling of end-of-life government vessels used for non-commercial purposes on the basis of the Waste Shipment Regulation and Basel Convention. The Impact Assessment in fact concludes that, although explicit regulation at EU level would clarify the legal situation and explicitly mandate Member States to act appropriately with respect to their own ships, “[a]n explicit legal requirement at EU level to dismantle all state-owned or -operated ships in Europe or OECD countries according to Convention standards would in substance not go beyond the already existing export ban for hazardous wastes under the EC Waste Shipment Regulation...”

The Impact Assessment also points out that since State action is subject to a much higher degree of public scrutiny, there is not a major risk of reflagging with respect to government vessels. However, “[i]f rules on the sale of government vessels for further use were included in the legislation, the freedom of navies and other Member State agencies to dispose of their vessels would be restricted. This has the potential to depress considerably the price that the government agency would otherwise receive on the market.” The placing of conditions on the sale of ships to third States or private companies before they become waste is in fact seen as a crucial element in ensuring that dismantling of state-owned vessels is more effective. EU rules on the sale of warships would have to be agreed by Member States in view of their prerogative on security and defence matters.

### **3 Implications of specific measures**

Whereas the previous part focused on the pros and cons of early transposition in general, this part focuses on the implications of transposing specific measures. The Impact Assessment accompanying the EU Strategy assesses the environmental, economic and social impacts of these measures. This section focuses on further implications associated with the implementation at EU level of the key requirements of the Convention as well as complementary measures being considered to fill any gaps and ensure effective implementation.

#### **3.1 Key requirements of the Convention**

The following key requirements of the Convention are considered below:

- Inventory of hazardous materials, surveys and certificates
- Requirements for ship recycling facilities, in particular in relation to authorisation
- Reporting requirements for shipowners and ship recycling facilities

##### **3.1.1 Inventory of hazardous materials, surveys and certificates**

Hazardous materials are used in shipbuilding and ship repair for technical and safety reasons and may also be contained in fuel and cargo residues. The Ship Recycling Convention requires each new ship and, after a period of five years, all existing ships to have onboard an Inventory of Hazardous Materials (IHM). Limitations are also foreseen for the use of hazardous materials in shipbuilding and the most dangerous of them should be removed also from existing ships. The IHM shall be verified either by the Administration (that is, the flag State or the State under whose authority the ship is operating) or by any person or organization authorized by it taking into account IMO guidelines and

shall be specific to each ship. Furthermore, the Ship Recycling Convention introduces extra surveys of ships and the requirement for an International Ready for Recycling Certificate.

The relevant hazardous materials in the Convention are already covered by prohibitions and restrictions under EU legislation.<sup>54</sup> Therefore, this requirement does not require significant legislative change. The requirements for IHM and additional surveys do not however exist in Community law.

The adoption of EU measures to implement this inventory requirement will facilitate the identification of hazardous material on board ships that should be removed or disposed of prior to dismantling or managed in a safe and environmentally sound manner during the dismantling. The early implementation of this requirement will increase health and safety and environmental protection without further delay. As found by the Impact Assessment,

“The Inventory of Hazardous Materials (IHM) would in general raise awareness and open the way for realistic risk assessments and better precautions for shipyard workers, seafarers and labourers in recycling facilities. On the basis of the inventories, informed decisions can be taken by shipowner and flag states on the choice of a suitable recycling facility and the need for prior documentation, and by the scrapping facility and the recycling state on necessary waste management measures.”

The additional requirements on the IHM, surveys and the International Ready for Recycling Certificate would reduce the revenues of shipowners. The reduced revenue will equal the cost of establishing the International Ready for Recycling Certificate (IRRC). The cost of obtaining this certificate consists of the cost of the ship’s final comprehensive IHM and the cost of the survey and issuance of the certificate by the classification society. This cost may vary considerably depending on the size, the year the ship was built and its condition from approximately 20,000 €/t to more than 150,000 €/t. The certificate itself will develop into a standard item by the classification societies with an expected cost in the range of 5-10,000 €/ship. For a medium sized vessel, e.g. Panamax class of 10,000 tonnes lightweight, the additional cost will be in the range of 5% since the vessel would be valued at € 2 million at the price of 250 USD/t in April 2009. Even if a 100 USD/t cost for compliant green recycling was subtracted from the price the cost of the IHM and IRRC would be less than 10% of the steel scrap value in South Asia. For a smaller vessel scrapped in Europe the IHM and IRRC additional cost could substantially reduce the revenue for the shipowner. It is estimated that when selling a small vessel for recycling, the cost of compliance may amount to 50% of the scrap value of a 500 LDT vessel. However, the costs of assessing the vessel for hazardous materials and drawing up an inventory is currently borne by the recycling facility. Without this cost, the recyclers should be able to pay a slightly better price. On the other hand, the IRRC is a new cost to be borne by the shipowner.

The cost of establishing the IHM will be lowest for new builds as all relevant information on hazardous materials in the ship's structure will be readily available. For existing ships the costs for establishing the IHM will often be several times higher than for new ships.

The operating costs of shipowners would also increase to some extent, due to the additional surveys, the maintenance of an IHM and the need for the International Ready for Recycling Certificate. The costs are however relatively small and expected on average to be in the range of 15-50,000 €/ship for the first IHM and then a cost every five years of approx. 5-10,000 € for maintenance, surveys and re-issue of certificates. Considering the daily operating costs of any sizeable vessel it is not expected that visible impacts on transport and consumer prices from an IHM requirement will be seen.

Norway has proposed to include an additional three hazardous substances in the Convention: Perfluorooctane sulfonates (PFOS) and PFOS-related substances, Brominated Flame Retardant

---

<sup>54</sup> For further details please see ‘Table of Correspondence’ document (COWI/Milieu March 2009)

(HBCDD) and Trichlorobenzene. The PFOSs are proposed to be included in Appendix 1, whereas the latter two are proposed for Appendix 2. The PFOSs and HBCDD are already covered by prohibitions and restrictions under EU legislation. Appendix 1 includes the hazardous materials, which should be included in IHM for all ships including existing ships. The use of PFOS and PFOS-related substances within vessels has not been mapped, but the substances have in general had a widespread use. Including these substances in Appendix 1 could constitute a noticeable addition in the required work with respect to the ship's IHM.

Concerns have been expressed within the shipping industry that establishment of the IHM could possibly lead to disclosure of intellectual property should supplier information be published or circulated widely.

As the inventory and survey requirements are generally accepted by the international maritime community, it is unlikely that Party shipping companies or shipyards will face difficulties in competition even against operators from Non-Party countries. The cost factor of inventories is not significant enough to influence competition between shipping companies substantially.

The requirements on certificates and IHM will create business and job opportunities in consultancies for assistance in establishing IHM and within the classification societies. The Impact Assessment estimates that the major five or six European societies would each require about 100 additional staff (mainly engineers and chemists) in the first five years and about half of this on a more permanent basis.

Early transposition at EU level of the requirements for an IHM, surveys and certificates will add an extra economic burden on the European shipping industry while releasing it from the European recycling industry. The extent of this will however be limited and is not expected to result in visible competition distortion.

At the same time, early transposition could generate valuable experience and expertise within European consultancies and classification societies, which could later give a competitive advantage on the international market.

### **3.1.2 Requirements for ship recycling facilities**

The Ship Recycling Convention requires that ship recycling facilities are to be authorised. This mandatory authorisation is to be given after inspection by the Party or a responsible organisation to facilities managed in compliance with the national implementation of the Convention and its Guidelines.

The possibilities for the facilities, the shipowners and other stakeholders to assess and follow the performance of the ship recycling yard are prepared for in the Convention, which states that a facility must have: "A system for (regular) monitoring of the performance of the ship recycling operations". The issue of monitoring of the facilities is addressed in the Convention guidelines based on a submission from the US regarding the Recycling Facility Management Plan. The Recycling Facility Management Plan has to be prepared by the recycling facility to specify the manner in which each ship will be recycled, depending on its particulars and its inventory.

The requirement for ship recycling facilities to obtain a permit from the competent authority is already covered under EU legislation. A recycling facility management plan does not however exist as a legal obligation under existing Community law.

As strict requirements for water protection and waste management are already in place for EU recycling facilities, transposition of the specific Convention requirement would not substantially alter the environmental conditions for these facilities in the EU.

The only new element of the Convention for EU operators, the Recycling Facility Management Plan, could improve compliance of an operator with environmental and safety rules, as it is supposed to be ship specific and be based on details on the specific hazards related to recycling of that ship, e.g. IHM data as incorporated in the Ship Recycling Plan. The exact content of the Recycling Facility Management Plan is still being developed in the Convention guidelines.<sup>55</sup>

As the existence of the IHM is a key basis for developing the Recycling Facility Management Plan and the Ship Recycling Plan, EU early transposition of the recycling facilities requirements should be coordinated with transposing the IHM requirement.

### **3.1.3 Reporting requirement for shipowners and recycling facilities**

Regulation 24 of the Convention introduces the requirement for shipowners to notify the flag State of the intention to recycle a ship in order to allow it to prepare for the survey and certification required by the Convention. Ship Recycling Facilities would also have to notify their competent authority when preparing to receive a ship for recycling. The ship must obtain the International Ready for Recycling Certificate (IRRC) and recycling must not start before the Ship Recycling Facility has been authorized by its competent authority(ies) to do so after submitting a report explaining how the recycling will take place based on the IRRC.

The current regulation of these issues in the European setting when a ship is to be exported involves Prior informed consent and the Waste shipment regulation. However, a ship may not be exported outside of the EU (in fact the OECD), if it contains a number of listed hazardous materials, which a decommissioned ship inevitably does. Ships legally exported under the Waste Shipment Regulation for scrap must therefore be thoroughly cleaned and the reality is that such notified export of ships does not take place from the EU to countries outside of the OECD. Typically, older ships are instead sold for continued trading and will fly the flags of states outside of the EU, when they eventually must be recycled.

Thus, the use of the existing regulation in the context of export of recyclable ships containing hazardous materials to countries outside of the OECD is not foreseen. The Ship Recycling Convention, nevertheless, sets out to enable under defined and regulated conditions the sale of ships for recycling, including the abovementioned situation. The Ship Recycling Plan is the key document in the Convention as it links the authorisation of the recycling facility and the hazardous content of the ship as stated in the IHM.

The International Ready for Recycling Certificate (which is the IHM in its final form) together with the facility authorization forms the basis for acceptance of a vessel for recycling by the recycling State since the authorised Ship Recycling Facility must produce an approved Ship Recycling Plan in acknowledgement of the hazards identified on the ship.

After completion of the scrapping of the ship, a completion document, the Statement of Completion, is to be submitted to the flag State, but this is not a new situation since already today flag States receive de-registrations for ships when reflagged, scrapped or lost.

---

<sup>55</sup> Guidelines for the Safe and Environmentally Sound Ship Recycling

## 3.2 Additional measures

In the interests of affording a higher degree of environmental protection and maritime safety, the EU measures may be more stringent than international standards. An EU instrument could elaborate and improve on international rules.

Article 1(2) of the Convention allows Parties, individually or jointly, to take more stringent measures consistent with international law with respect to safe and environmentally sound recycling of ships in order to prevent, reduce or minimize any adverse effects on human health and the environment.

Some stakeholders have stressed that the EU should not impose additional requirements which could upset the delicate balance reached by the IMO between improving environmental and health and safety standards with the need to ensure adequate recycling capacity. Others have argued that additional measures would be necessary in order to ensure compliance with the ship recycling measures, in particular, through mechanisms that counter the possibility of circumvention through reflagging.

### 3.2.1 Mandatory audit and certification scheme for ship recycling facilities

The Convention is accompanied by a number of guidelines. One of these guidelines, often referred to as the Facility Guideline,<sup>56</sup> addresses the ship recycling facilities. One of the issues particularly addressed in the Convention and its proposed Guidelines is that the recycling activities under the jurisdiction of a recycling state are required to be duly controlled. The means to do so is the national authorisation mechanism for recycling yards, which is the subject of another Convention guideline. The draft Facility Guideline, currently under development by a Working Group chaired by Japan, details the procedures to be implemented in the recycling facilities and it integrates safety, worker's health and environmental issues in the ship recycling context.

Whereas the Convention itself does not address the methods of ship recycling, the draft guideline operates with four methods: dry dock, pier breaking, landing and beaching, the last three are referred to as 'wet methods'. Several countries are, however, opposed to mentioning the beaching method and draft proposals for a guideline text not including beaching has been circulated. It was expected that the draft Facility Guidelines could be adopted by the MEPC at its 59<sup>th</sup> meeting in July 2009, but the most recent estimate of approval of the guideline is now at the MEPC's 60<sup>th</sup> meeting in March 2010. The guidelines accompanying the Convention are technically not mandatory documents, but do carry substantial weight as they represent the IMO endorsed interpretation of the Convention itself.

The draft guideline recommends a number of actions to be taken to fulfil the Convention's 'safe and environmentally sound management' criteria. It is comprehensive but generally attempts to summarise generic recommendations regarding worker's safety and the environment and to leave the details to the presumed national legislation. With respect to the wet methods, in particular beaching, issues such as double containment, oil and oily water spill containment, secure mooring, and emergency response access remain unaddressed.

Irrespective that regulation of land-based activities is not a core area for IMO it is also a particularly complicated area since such authorisation and enforcement of it typically involves the coordination of a number of line ministries and their legislative mandates.

---

<sup>56</sup> Guidelines for the Safe and Environmentally Sound Ship Recycling

In addition, the implementation of the Ship Recycling Convention will be anchored in the Party's national legislation and a sovereign interpretation of safe and environmentally sound recycling practises, which may take different yet compliant shapes from country to country. Even for a shipowner willing to do the effort it is difficult to achieve reasonable transparency with respect to safe working procedures, environmental discharges and disposal options in the recycling facilities. Already today, certifications by the international and voluntary ISO and OHSAS standards are popular in ship recycling and a number of facilities in Europe, China, Turkey and India all boast ISO 14001 or OHSAS 18001 certificates although differing significantly in their approach to safety, health and environmental issues. On that account, the shipowner organisations and a number of flag states have maintained that the market for safe and environmentally sound ship recycling lacks transparency with respect to standards and applicable rules.

In support of the Convention, a study by the European Maritime Safety Agency (EMSA)<sup>57</sup> has looked into the possibility of an EU-specific certification and audit scheme that may be open to ship recycling facilities worldwide. The study proposes a model for an European integrated management system (IMS) for certification and audit of ship recycling facilities to demonstrate safe and environmentally sound recycling of ships. The study establishes the framework for a certification scheme that goes beyond the existing standards, e.g. EMAS, ISO 14001 and OHSAS 18001, and builds on the Ship Recycling Convention and on the planned specific ISO standard 30001 for ship recycling facilities. As a key element, it establishes a three tier quality system for ship recycling facilities performance after which the facilities can be certified. EMAS complying facilities will have a good starting point for upgrading to the proposed EU certification system.

The system would be a business to business system similar to the ISO standards allowing facilities to decide on their market profile. It will bring to the front certain European requirements related to hazardous waste handling and disposal, occupational health and workplace safety, and in particular a requirement on performance monitoring and publication of progress.

As found by the Impact Assessment, by applying an audit scheme, the EU would:

“...increase transparency and have a tool to monitor that the facilities to which EU-flagged vessels are sent for scrapping comply with the applicable standards and rules on safe and environmentally sound recycling of ships. The participating facilities themselves would have a better control of operations and of their compliance with international standards, the rules of the future IMO Convention and also national legislation. The certificate would give them an incentive to improve environmental and safety performance. Certified facilities would serve as a benchmark for the industry and for national competent authorities.”

Depending on the number of facilities that participate in the system, a certification scheme like the one proposed in the EMSA study may have considerable potential for the reduction of pollution, accidents and occupational diseases in South Asian facilities. However, as with voluntary agreements, the chances that a purely voluntary audit scheme would be widely used and have a strong impact are at present not very high. This is also the position of several of the stakeholders consulted. Of these, some are instead arguing for a mandatory scheme, of which some favour a global system and others favour an EU internal system. A number of the consulted stakeholders consider that an audit and certification

---

<sup>57</sup> COWI/Litehauz/EMSA, 'Certification of Ship Recycling Facilities' (2008). The Study analysed the required components of an integrated safety, health and environment management system to assist in the implementation of the future IMO Convention. Part of the task has been to identify performance indicators for such a system and to assess their suitability for provision of comparison between yards employing different recycling methods under different national regimes. It is the aim to produce a voluntary mechanism allowing the responsible shipowner to choose upgraded facilities and be assured that the recycling was acknowledged and accepted as 'safe and environmentally sound'.

scheme should rely on the IMO Convention only. Several stakeholders refer to potential obstacles for the EU fleet in terms of legal and sovereignty issues from the recycling states.

An early transposition of an EU mandatory requirement for introduction of a new audit and certification scheme is associated with the following issues, which have to be solved:

- (rapidly) ensure availability of the audit and certification scheme to the market (framework is available from the EMSA study)
- provide a qualified accreditation system of the auditing and certifying organisations to ensure legitimacy and immediate market credibility; and
- increase sector capacity and assist ship recycling facilities in upgrading to the audit and certification system and performance goals.

The additional auditing of performance indicators and the classification would produce costs for recycling facilities in the range of 20,000-40,000 € plus internal personnel costs of one to two man years. For the EU as well as other OECD countries and China the additional costs will most likely be less, due to the more advanced HSE starting points. The additional costs of the recycling facilities will be transferred to the shipowners resulting in reduced profit when selling a ship for recycling. For this reason, compliant recycling capacity will only develop if the market is willing to pay (obtain less profit). Some of the reduced profit by shipping companies selling ships for recycling could be counteracted by benefit from positive publicity, avoidance of administrative burden and indemnity against liability risks.

In the EMSA study on the possibility of an EU-specific certification and audit scheme (IMS) open to ship recycling facilities worldwide, it was estimated that no more than 100 ship recycling facilities would apply to become certified according to the IMS. Certification of this amount of facilities would require an estimated maximum total input of 100 man-months from accredited surveyors for the accreditation surveys. Smaller annual follow-up audits/surveys from the external surveyor will most likely be implemented for the following years.

In general, it would be most attractive for better qualified entrants who want to convert these technical qualities into a marketplace advantage. Such facilities can possibly also reap financial benefits through better control of operations and avoid sanctions for non-compliance by competent authorities.

An early EU transposition of a requirement for recycling of European ships in compliant yards would impose an economic burden on European shipowners, which, if possible, could result in re-flagging of ships to non-European states, which was also the input from a few of the consulted stakeholders. A few of these further referred to a potential reflagging of EU ships as a result of lack of compliant recycling capacity in the event of early EU action. Previous studies<sup>58</sup> of additional costs for "green recycling" compared to conventional techniques have estimated an additional cost of 25-150 USD/LDT with the lower end being upgrades in South Asia and the higher end being recycling in Turkey.

The additional costs for compliant or "green" recycling ranging from 25-150 USD/LDT would result in a loss of net-revenue for the owner of a ship flying an EU flag. A very large crude oil tanker (VLCC) with a cargo carrying capacity of ca. 300.000 tonnes will have ca. 45.000 LDT and only last year fetched more than 30 million USD in Bangladesh. Under the current market conditions of approximately 250 USD/LDT its value has dropped to approximately 11.25 million USD. With the additional cost for compliant or green recycling the shipowner would instead receive between 100-225

---

<sup>58</sup> COWI/DHI/DG ENV: 'Ship Dismantling and Pre-cleaning of Ships' (2007) and COWI/DG TREN: 'Oil Tanker Phase Out and the Ship Scrapping Industry' (2004)

USD/LDT and most probably in the area of 200 USD/LDT or 9 million USD compared to that of 11.25 USD today at a traditional scrapping facility in Bangladesh.

Maximum benefit of an early EU transposition of the certification requirement would therefore be obtained if seen together with additional measures to compensate the loss of net-revenue from scrapping the ships in compliant or environmentally sound ship dismantling facilities compared to traditional scrapping.

### 3.2.2 Mandatory funding mechanism

Scenarios for a ship dismantling fund have been presented in a separate note<sup>59</sup> focusing on the pros and cons of three options for establishing a ship dismantling fund. The note aims at facilitating the Commission's internal discussions and decision making on the feasibility of establishing a ship dismantling fund to finance ship recycling in safe and environmentally sound facilities.

A ship dismantling fund could potentially play a vital role in providing proper incentive for the stakeholders (i.e. the shipping industry and the ship scrapping industry) to ensuring that ships are dismantled in a safe and environmentally sound/certified facility. It should be recognised that only a very limited number of European shipowners voluntarily scrap vessels in the few recycling facilities in Asia that are approaching safety, health and environmental management levels compliant with the future Convention. Employing perfectly legal mechanisms the vast majority of owners chooses scrap in the classic beaching method and there is no indication that this is going to change.

As indicated above, from an economic point of view there is very little incentive to choose green recycling in Europe or elsewhere compared to standard ship breaking in Asia due to fact that it is more costly. Accordingly green recycling facilities are not able to pay as high a price for the scrapped ships as the conventional Asian recycling facilities. The fund is intended for closing the financial gap between the conventional and green dismantling facilities to provide proper incentive for shipowners to choose a green ship recycling facility. Further, in order to meet this objective the funding system must be based on a stable financing source, which provides sufficient funds to enable the Fund to provide proper incentive for shipowners to choose to dismantle ships at a safe and environmentally sound facility.

Although many stakeholders during the public consultation process expressed their scepticism regarding the general idea of an EU fund, it is concluded that, should it, in an EU context, be decided to establish a ship dismantling fund to finance ship recycling in safe and environmentally sound facilities, an EU revolving fund based on recurrent charges on ships calling at ports would probably be the most feasible option, until the entry into force of the Ship Recycling Convention. Compensation should be disbursed to shipowners presenting evidence that their ship has been scrapped at a green facility. The compensation should cover the loss in net revenue from scrapping the ship in environmentally sound facilities compared to conventional scrapping facilities. The compensation should be sufficient to make green dismantling competitive, yet it should not be so high that green facilities would become much more profitable for the world's shipowners than conventional scrapping.

The fund would be an additional *interim measure* to make early transposition effective. Depending on the entry into force of an EU instrument, it could play an important role in ensuring safe and environmentally sound dismantling of the single hull oil tankers being phased out in 2010 and 2015 as well as tackling part of the backlog in ship scrapping.

---

<sup>59</sup> Please see note on the Ship Dismantling Fund (COWI/Milieu), August 2009.

At the same time, it is noted that it is also possible to explore other mechanisms. One option could be the introduction of a financial guarantee whereby a certain sum of money would be blocked until the ship is dismantled in a compliant facility. This mechanism is already required under a number of EU legal instruments, including the Waste Shipment Regulation. A financial guarantee could possibly represent a more limited administrative burden when compared to the administration of a fund. Nevertheless, problems would still exist in terms of defining to which ships this mechanism would apply and establishing the criteria upon which disbursement should be based.

## 4 Conclusion

In conclusion, early transposition is largely justified by the particular responsibility of the EU and its competence in environmental and maritime matters as well as the necessity to ensure recycling of European ships in compliant yards. An early regional approach may be impeded by re-flagging to non-European states, along with difficulties in ensuring proper enforcement and control of the new requirements.

In any case, the Commission should actively encourage prompt signature of the IMO Convention by the Member States, while ensuring that appropriate interim measures are in place through early transposition. Upon signature of the Convention, the Member States would be obliged to refrain from acts which would defeat its object and purpose in accordance with Article 18 of the 1969 Vienna Convention on the Law of Treaties, irrespective of the entry into force of the Ship Recycling Convention.

The relationship with the Waste Shipment Regulation should be made very clear by the Commission. In particular, although feasible from the purely legal point of view, it does not appear practicable to implement both sets of rules simultaneously with respect to the same ship. Such situation would lead to confusion and legal uncertainty. It could create practical problems jeopardising the very objective of these rules by preventing the proper recycling of ships.

Therefore, early transposition should include implementation mechanisms and incentives to ensure efficient implementation of the new requirements. Such additional measures should counterbalance the extra economic burden on the European shipping industry. Two main tools are foreseen: an audit and certification scheme for ship recycling facilities and the establishment of a funding mechanism for closing the financial gap between today's conventional breaking method and environmentally safe and sound recycling. In addition, proposals put forward by various stakeholders to improve enforcement and control mechanisms should be taken into account. For example, increasing inspections at EU ports, or establishing an independent inspectorate to ensure compliance with ship recycling requirements.