



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

*Executive summary*

This Final Report has been prepared by Milieu Ltd. and COWI under Contract No. 07.0307/2008/517531/ETU/G4 for DG Environment of the European Commission. The views expressed herein are those of the consultants alone and do not represent the official views of the European Commission.

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## Executive Summary

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 (SRC)<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). 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 the EU itself is not a member of the IMO but only an observer, although all 27 Member States are IMO members. Therefore, the EU is not a party to the IMO Conventions, 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.

Within the framework of the Integrated Maritime Policy for the European Union of October 2007,<sup>2</sup> the Commission has proposed different policy options in order to effectively redress these currently unacceptable conditions in a timely manner, before the IMO Convention becomes effective. These proposals are described in the Green Paper on better ship dismantling<sup>3</sup> which was issued in May 2007. 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 SRC into Community law and development of relevant complementing measures. The Strategy also reflects the call from the European Parliament to the Commission and Member States to take urgent action on this issue.

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 SRC. 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 transposed by Member States.

Following a public stakeholder consultation launched on 6 April 2009, a stakeholder workshop was held by the Commission. In encouraging stakeholder contributions, the Commission stressed that all options are open and that an Impact Assessment would be carried out to determine the environmental, social and economic impacts of these. The present project has focused on two main aspects: early transposition and the feasibility of setting up of a fund.

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<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> COM(2007) 575 final

<sup>3</sup> COM(2007) 269 final

## 1. 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. Finally, the competence of the EU to regulate this matter is embedded in the EC Treaty provisions on environmental protection and maritime transport safety.

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 EU's responsibility is further emphasized in light of its pro-activity in accelerating the single hull tanker phase out. Early transposition of the SRC'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 sound dismantling. It is also 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 SRC.

Furthermore, the EU's responsibility with specific reference to the dismantling of ships already exists under the Waste Shipment Regulation (WSR)<sup>4</sup> which prohibits the export of hazardous waste from the Community to non-OECD countries. 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 WSR and its export ban is difficult when a ship becomes waste outside European waters.

Once and if the SRC 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 would fall under the SRC regime and no longer under waste shipment rules. In other words, whilst measures should be taken to ensure a better enforcement of the WSR, there is a significant probability that it would only be a temporary solution, which would subsist during the interim period until the Convention's entry into force.

Finally, it is relevant to refer to the fact that 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. For example, the IMO International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS 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.

EU action could also lead to the elaboration and improvement of international rules. For example, with respect to the phasing out of single hull tankers where the adoption of measures by the EU prompted the IMO to amend MARPOL 73/78<sup>5</sup> in order to apply arrangements similar to those of the EU to all oil tankers worldwide.

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<sup>4</sup> Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste

<sup>5</sup> International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL)

The EU was also instrumental in triggering higher international standards with respect to compensation for victims of oil pollution damage. A proposed EU Regulation on the establishment of a fund for the compensation of oil pollution damage in European waters prompted adoption of the IMO Protocol establishing an International Oil Pollution Compensation Supplementary Fund.

Finally, 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, 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 convention superfluous. The EU should encourage speedy ratification of the SRC.

### ***Conclusions/Recommendations***

Early transposition would be recommended in order to reflect the EU's specific responsibility linked to the size of the EU fleet and the EU *acquis*, in particular, the WSR. By undertaking early action, the EU could play a leading role for the implementation of international standards. In parallel, the Commission should actively encourage ratification of the SRC by the Member States and third countries.

## **2. Issues linked to EU early transposition**

The SRC, once it enters into force, will apply internationally whereas the requirements of EC legislation are regional in scope. 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. Keeping in mind that the EU is not undertaking actions in isolation but with a view to facilitating and promoting the implementation of the SRC, during the interim period before the Convention enters into force, the EU regime would apply only to ships flying the flags of EU Member States and to ship recycling facilities in the jurisdiction of Member States.

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

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

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. The main set back associated with IMO Conventions, is that they take on average six years to enter into force and some IMO Conventions have not yet entered into force at all. The SRC sets up specific conditions for its entry into force, which could lead to a significant lapse of time before it enters into force. The SRC 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.

More specifically, the SRC 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. 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 at least two major recycling States nations would be necessary.

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.

Moreover, the ship dismantling problem is international in dimension and consequently a degree of uniformity is necessary if an effective solution is to be achieved. Adoption of the key elements of the SRC by the EU will guarantee uniform rules in all Member States.

#### ***Conclusions/recommendations***

The adoption of an EU Regulation would establish a consistent approach across Member States ensuring a level playing field and uniform enforcement. If the principal advantage of uniformity is to be secured, a Regulation covering all the Convention's requirements should be the transposing instrument. Moreover, the Regulation is the instrument typically used by the EU in the maritime field.

## **2.2 Potential problems**

The main problems associated with an early transposition of the Convention requirements at EU level are the risk of reflagging of EU vessels and the risk of redirection of transport to non-EU ports. 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. It could also result in the redirection of transport to non-EU ports in order to avoid controls exercised by port States

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. However, 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.

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 much shorter than that which would exist between adoption and entry into force of the IMO Convention.

#### ***Conclusions/recommendations***

The key disadvantage of early transposition is the risk of reflagging of EU vessels and redirection of transport to non-EU ports. EU Member States would have less time to adapt

### 3. The question of scope

The SRC 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. 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 and ships of less than 500 GT or operating throughout their life only in waters subject to the sovereignty or jurisdiction of the flag State. However, each Party must ensure that such ships act in a manner consistent, as far as is reasonable and practicable, with the Convention.

The option of extending the Convention's scope is being contemplated by the Commission. As regards the possible extension to small ships and domestic transport in the EU, this is not considered to be an urgent matter 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.

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. 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. This would avoid possible discrimination between private and State-owned vessels and thus contribute to a better image of public authorities. Extending the scope is concordant with the Member State duty to ensure clean dismantling of all their vessels.

It is however noted that warships and other government vessels on non-commercial service will typically follow the requirements of international conventions even though they do not generally fall within their scope of application. Moreover, as a rule, the same exemptions from scope found in the relevant IMO Convention are transposed into EU legislation. Furthermore, the forecasted volume of EU warships to be scrapped is fairly limited. Recent estimates indicate a total of 400,000 LDT to be scrapped over the entire period from 2007-2010, that is only 0.4% of the total EU scrap volume for that period.

#### ***Conclusions/recommendations***

An extension of the scope to small ships is not recommended, as it would entail a significant burden without changing the currently acceptable recycling practices. With regard to warships and government vessels on non-commercial service, extension of the scope would have mostly a symbolic advantage.

### 4. Implications of specific measures

Two types of specific measures have been considered in relation to early transposition:

- The key requirements of the Convention,
- Additional measures aimed at filling gaps and ensuring effective implementation.

It is noted at the outset that certain requirements of the SRC are indirectly covered by existing EC legislation which although not aimed specifically at ship dismantling operations could, in fact, cover such activity. By way of example, reference may be made to Directive 99/92/EC laying down minimum requirements for the safety and health protection of workers potentially at risk from

explosive atmospheres. This Directive does not specifically mention that employers shall ensure that gas free for hot work conditions are maintained in order to prevent explosions as provided by Regulation 19 of the Convention. However, Article 3 and Article 4 of the Directive provide that employers shall take necessary preventive measures in order to avoid explosions. Therefore, indirectly, the requirement in the Convention could be deemed to be provided for.

Other requirements are either partially or very partially covered, for example, existing requirements under EC legislation should be in line with Regulation 21 of the Convention on emergency preparedness and response but only insofar as workers on site are concerned. However, the Convention focuses specifically on emergency preparedness and response plans. Such requirements are only partially covered under Directive 96/82/EC (Seveso II).

With respect to some SRC requirements, compatibility issues are noted when these are compared to existing EC legislation. For example, the definition of 'ship' as a vessel stripped of equipment or being towed could simultaneously be defined as 'waste' under EC legislation and as a 'ship' under the SRC. Concerning inspection of ships, Directive 95/21/EC on port State control could be amended in order to include in the list of certificates and documents that have to be verified by inspectors on board of ships. However, this raises the question of differences in scope between the Directive and the SRC. The WSR prior consent requirement is not exactly covered in the SRC, where the requirement for reporting between the State of export and the State of destination and between the shipowner and the State of destination (recycling States) is very limited.

Finally, since the SRC contains novel requirements with respect to the environmentally safe and sound dismantling of ships, these are not covered at all by current legislation. Examples include the requirement for the Inventory of Hazardous Materials and the notification and reporting requirements stipulated respectively in Regulations 5 and 24 of the Convention. In the case of the Inventory of Hazardous Materials, it should be underlined that the so-called 'Green Passport', provided for in the IMO Guidelines on Ship Recycling, includes an inventory of hazardous materials and is meant to accompany the ship throughout its life. Successive owners are responsible for updating the Green Passport and incorporating all relevant design and equipment changes. The Passport is delivered by the final owner to the recycling facility. However, this is a voluntary mechanism and does not constitute a legal obligation. With regard to reporting requirements, current EU legislation includes provisions on traceability of waste. Whereas with respect to other requirements, amendments to existing legislation could result in adequate coverage, a specific legislative instrument would be needed to cover these key requirements at EU level.

#### **4.1 Key requirements of the Convention**

##### *Inventory of hazardous materials, surveys and certificate*

The SRC requires all ships to have onboard an Inventory of Hazardous Materials (IHM) and introduce prohibitions and limitations for the use of hazardous materials in shipbuilding. While these hazardous materials are already covered by prohibitions and restrictions under EU legislation, the requirements for IHM and additional surveys do not exist in Community law.

Early transposition of these requirements has clear environmental, health and safety advantages as hazardous substances management, safe removal and disposal will be facilitated by an improved identification of hazardous material on board ships. On the other hand, requirements on the IHM, surveys and the International Ready for Recycling Certificate (IRRC) have cost implications for the shipowners, particularly for existing ships. In addition to the cost of establishing the IRRC, a small increase in operating costs of shipowners is also foreseen. No visible impacts on transport and consumer prices from an IHM requirement are expected. The extent of the extra economic burden on

the European shipping industry will however be limited and is not expected to result in visible competition distortion. At the same time, early transposition could generate business and job opportunities, along with valuable experience and expertise within European consultancies and classification societies, which could later give a competitive advantage on the international market.

#### *Requirements to Ship Recycling Facilities*

The SRC sets up a mandatory authorisation for ship recycling facilities, to be granted after inspection to facilities in compliance with the SRC and its Guidelines requirements. Facilities have to prepare a Recycling Facility Management Plan. The Ship Recycling Plan is a key document as it links the authorisation of the recycling facility and the hazardous content of the ship as stated in the IHM. It is not covered by current EU legislation. Its early transposition could improve compliance of an operator with environmental and safety rules, as the Plan is supposed to be ship specific and based on details on the specific hazards related to recycling of that ship. 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.

#### *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 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 WSR. However, a ship may not be exported outside of the EU, if it contains a number of listed hazardous materials, which a decommissioned ship inevitably does. Ships legally exported under the WSR 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. 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 SRC, nevertheless, sets out to enable under defined and regulated conditions the sale of ships for recycling. 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 IRRC therefore 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.

#### ***Conclusions/recommendations***

The key requirements of the Convention which should be covered by early transposition include the inventory of hazardous materials and associated additional surveys and certificates, the recycling facility management plan and ship recycling plan.

Early transposition of reporting requirements for shipowners and facilities should be carefully considered in combination with the question of applicability of the WSR and the future decision on the equivalent level of control.

## 4.2 Additional Measures

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

The draft Facility Guideline currently being drafted under the SRC generally attempts to summarise generic recommendations regarding safety of workers and the environment and to leave the details to the presumed national legislation. With respect to the wet methods, in particular beaching, some issues remain unaddressed.

In addition, the implementation of the SRC will be anchored in the Parties' national legislation and a sovereign interpretation of safe and environmentally sound recycling practices, which may take different yet compliant shapes from country to country. Even for a shipowner willing to make 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.

A possible answer would be to introduce a requirement for recycling of European ships in recycling facilities certified in accordance with the EU-specific certification and audit scheme proposed in a recent EMSA study

The system is 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, in particular a requirement on performance monitoring and publication of progress.

### *Mandatory funding mechanism*

If the EU opts for early transposition of the SRC ensuring sustainable funding is important to provide proper incentives to ensure that ships are dismantled in a safe and environmentally sound/certified facility. Without a funding mechanism there is a real risk of circumvention given there is very little incentive, from an economic point of view, to choose green recycling in Europe or elsewhere compared to standard ship breaking in Asia due to the fact that it is more costly. Green recycling facilities are thus 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.

Although many stakeholders expressed their scepticism with regard to 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, 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 SRC. Compensation should be disbursed to shipowners presenting evidence for scrapping their ship 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.

The purpose of this study has been to outline potential design scenarios for an EU ship dismantling fund and to analyse the pros and cons of three options for establishing such a fund. The descriptions of the scenarios are general and focus on the conceptual elements of the funding system and thus do not address specific details of the fund design. The ship dismantling fund is only one possible option for a financial mechanism, others could be further considered, as discussed during the June stakeholder workshop. However depending on which option the Commission wishes to pursue, if any, there may be a need for further study on the EU ship dismantling fund, to analyse *inter alia* the possibility to differentiate the contribution depending on the hazardous contents of the ship and the specific structuring of the financing and disbursement mechanism.

### ***Conclusions/recommendations***

Early transposition should include implementation mechanisms and incentives to ensure efficient implementation of the new requirements. Two main tools are foreseen: audit and certification scheme for ship recycling facilities and as an *interim measure* a financial mechanism to make early transposition effective. Therefore 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 SRC. Compensation should be disbursed to shipowners presenting evidence for scrapping their ship 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