

DEVELOPING THE ENVIRONMENTAL LEGISLATION ON SHIP RECYCLING

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***Abstract:** Considering that worldwide, between 200 and 600 large end-of-life ships are broken up and recycled each year, the paper reviews the need to reduce the environmental, occupational health and safety risks related to ship recycling. An analysis is made, among others, of Regulation No 1013/2006 of the European Parliament and of the Council 14 June 2006 on shipment of waste, as well as IMO Resolution A.962 (23) Guidelines on ship recycling, as amended, and a Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The author pleads for the establishment of mandatory requirements at global and regional level in order to ensure an efficient and effective solution of the problem of ship dismantling. The future Convention dealing with ship recycling, under the auspices of the International Maritime Organization, will have repercussions on the waste shipment regulation and other European Union laws on environmental protection and safety at work, along with the impact on the recycling market.*

Key words: ship recycling, waste shipment, environmental legislation, hazardous material

1. INTRODUCTION

Shipowners who have decided to end the economic life of a vessel when the maintenance cost of vessels start to exceed the revenue, or when the vessel has become unattractive for a second-hand market, will look for a cash buyer who is either a broker or a scrap yard operator himself. The recycling of ships in the era of globalisation is a reason of concern taking into consideration that worldwide between 200 and 600 large ships are recycled each year. From a narrow economic point of view it is sustainable, but the cost to human health and the environment are high.

2. THE THREATS CAUSED BY TIME-EXPIRED SHIPS

Ship recycling contributes to sustainable development from an economic point of view, with virtually every part of a hull, machinery, equipment, fittings and furniture being re-used.

There are growing concerns over health, welfare of workers in the ship recycling yards, as well as environmental pollution. Older vessels contain large amount of hazardous materials, such as asbestos, oils and oil sludge. At least two thirds of these ships are dismantled on beaches and river banks on the Indian sub-continent, mainly in Bangladesh. Health and safety conditions are critical and it is estimated that workers catch fatal diseases from handling and

inhaling toxic substances and the fatal accident rate is high. None of these sites has containment to prevent pollution from soil and water.

3. CURRENT CORE SOURCES OF LAW ON SHIP RECYCLING

3.1. IMO Resolution A.963 (23) Guidelines on Ship Recycling, as amended, 2003/06

The International Maritime Organization (IMO) Resolution A.963 (23) Guidelines on Ship Recycling, as amended by Resolution A.980 (24), give guidance to all stakeholders in the recycling process, including administrators of ship building and maritime equipment supplying countries, flag port and recycling States, as well as intergovernmental organizations and commercial bodies such as shipowners, shipbuilders, repairers and recycling yards.

In the process of recycling ships the materials and equipment are almost entirely reused. Properly handled, ship recycling is a “green” industry.

However, the guidelines recognize that, although the principle of ship recycling may be sound, the working practices and environmental standards in the yard often leave much to be desired. Despite the fact that ultimate responsibility for conditions in the yards has to lie with the countries in which they are situated, other stakeholders must be encouraged to contribute towards minimising potential problems of the yards.

The notion of a “Green Passport” for ships is included in the guidelines. It is envisaged that this document, containing an inventory of all substances potentially hazardous to human health or the environment, used in construction of a ship, would accompany the ship through its working life. Produced by a shipyard at the construction stage and passed to the purchaser of the vessel, the document would be in a format that would enable any subsequent changes in materials or equipment to be recorded. Successive owners of the ship would maintain the accuracy of the “Green Passport” and incorporate all relevant design and equipment changes, with the final owner delivering it, with the vessel, to the recycling yard.

3.2. ILO Safety and Health in Shipbreaking – Guidelines for Asian countries and Turkey, 2004

The International Labour Organisation (ILO) adopted in 2004 technical guidelines on ship dismantling called Safety and Health in Shipbreaking – Guidelines for Asian countries and Turkey. The Guidelines are designed to assist shipbreakers and competent authorities alike to implement rules on ILO rules on occupational safety, health and working conditions and the provisions of instruments of other international organisations, aiming at progressive improvement. The guidelines are not legally binding, nor are they intended to replace national law, regulation and accepted practice, because they only provide direction to those engaged in framing of relevant provisions and the setting up of an effective national system, procedure and enterprise by-laws.

3.3. Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, 1989

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (Basel Convention) step one is to minimize the generation of hazardous wastes. The less waste to start with, the less money and work and risk are involved in cleaning it. The most successful industry of the future will include those products that become better and better at minimizing unwanted by-products and those designing products with fewer components and the Basel Convention seeks to speed up this trend.

Step two is to treat and dispose of hazardous wastes as close as possible to where they are generated. Local disposal has a benefit to reduce the risk of accident spillage during transport and ensures that the costs of hazardous waste disposal are borne by generators of those wastes. Local waste-management facilities need to be of high technological standards and sites operators must be highly qualified and trained.

Step three of the Basel Convention is focused on minimizing international movements of hazardous waste across borders through an agreed regime of rules and procedures. This system starts by scrupulously identifying the kinds of wastes that are considered hazardous and are thus subject to rules on Transboundary movement. The Basel Convention requires every company or broker wishing to export hazardous wastes to ask the Government of the exporting State to provide prior written notification to the competent authorities in the State of import and in any transit State. The importing and transit States must give prior written consent before any export can take place. Each approved shipment must be accompanied by a "movement document" with a detailed description of the contents and their disposal requirements, from the point at which the export begins to the point of disposal. Hazardous waste shipments made without such documents are illegal.

An absolute ban on exports of hazardous waste from OECD countries to non-OECD countries was adopted in 1995 as an amendment to the Basel Convention. The mentioned "Basel ban" was incorporated in European Union legislation in 1997 through Waste Shipment Regulation and is binding on all Member States.

3.4. Technical Guidelines for Environmentally Sound Management of the Full and Partial Dismantling of Ships, 2002

This document, in line with the Basel Convention, is guidance to countries which have or wish to establish facilities for ship dismantling. The main concerns related to health include exposure to harmful substances, insufficient sanitary facilities, as well as the nature of work operation.

The guidelines provide information and recommendations on procedures, processes and practices that must be implemented to attain environmentally sound management (ESM) at such facilities along with advice and monitoring and verification on environmental performance. ESM means taking all practical steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes.

The technical and operational procedures that must be implemented constitute a record of best practices for ESM of a ship-dismantling yard.

3.5. Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste

Waste shipment regulation establishes procedure and control regimes for shipment of waste, depending on the origin, destination and route of shipment, the type of waste shipped and the type of treatment to be applied to waste in its destination.

The regulation shall apply to shipment of waste between Member States, within the Community or with transit through third countries, to shipment of waste imported into the Community from third countries, to shipment of waste exported from the Community to third countries and to shipments of waste in transit through the Community on the way from and to third countries. However, from the scope of this regulation, among others, the offloading of shore waste generated by the normal operation of ships and offshore platforms, including waste water and residues, is provided that such waste is subject to the requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relation thereto (MARPOL 73/78), or other binding international instruments.

Environmentally sound management means taking all practicable steps to ensure that waste is managed in a manner that will protect human health and the environment against adverse effects which may result from such waste.

The regulation is intended to promote efficient international cooperation regarding control of shipments of waste accompanied by information exchange, shared responsibility between the Community and its Member States and third countries with a view to ensuring sound management of waste.

The improvement of mandatory requirements for waste facilities and the treatment of specific waste materials at Community level, in addition to the existing provisions of Community law, can contribute to the creation of a high level of environmental protection across the Community and help to ensure that the development of an economically viable internal market for recycling is not hindered.

3.6 Commission of the European Communities Green paper on better ship dismantling, COM (2007) 269 final

The European Commission Green paper on better ship dismantling is Europe's contribution to tackling a global issue together with options for improving European management of ship dismantling. Consequently, the Green paper is focused on better enforcement of European Union waste shipment law, international solutions, strengthening the European Union ship dismantling capacity, technical assistance and transfer of technology and best recycling states, encouraging voluntary actions as well as on ship dismantling fund.

4. BUILDING UP A NEW INTERNATIONAL LEGALLY-BINDING INSTRUMENT

In theory, the transfer of end-of-life ships from industrial to developing countries is covered by international law on the shipment of waste, and the export from the European Community of vessels containing hazardous materials is banned by the EC's waste shipment regulation. Nevertheless, in recent years several cases of European ships going for recycling to South Asia have shown the problems of implementing this legislation.

As a rule, a vessel in dismantling contains a large amount of hazardous material, such as asbestos, oil and sludge and heavy metals in paints and equipment. What is more, the scraping of ships, as in Bangladesh, takes place on sandy beaches without any containment or barrier to prevent water and soil pollution. Materials that cannot be recycled are usually dumped on the spot and there is only a small number of reception facilities for hazardous waste. The situation in shipbreaking facilities has been criticised by environmental and human right organizations and the media.

Under the auspices of IMO, the Draft Convention on the Safe and Environmentally Sound Recycling of Ships is negotiated. The new instrument takes a 'cradle to grave' approach and will regulate the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling, without compromising their safety and operational efficiency. Besides the operation of ship recycling facilities in a safe and environmentally sound manner, the new mechanism will regulate the establishment of an appropriate enforcement mechanism for ship recycling, including certification and reporting procedure. In addition, the Convention also requires the development of guidelines providing supplementary specification and establishing uniform procedures for a number of technical issues arising from the Convention. Furthermore the Convention includes a control and enforcement mechanism for its effective implementation throughout the life of the ship, while avoiding, as far as possible, an increased administrative burden on States, shipping industry and recycling facilities.

Although most of a ship recycling takes place in South Asia, since many of those ship sail under the flag of a European flag State, and even more are owned by European companies, the situation is the concern of the European Union. Thus the European Maritime Safety Agency (EMSA) is also involved in exchange of views on current developments with regard to ship recycling and probable solutions to be implemented at European Union level. It should be noted that Community legislation is affected in so far as it prohibits the export of hazardous waste to developing countries.

5. THE COMMITMENTS OF THE SHIPPING INDUSTRY

The International Chamber of Shipping (ICS), in cooperation with other industry organisation, has developed an Industry Code of Practice in Ship Recycling (August 2001). It is a joint effort on industry policy on recycling from Baltic and International Maritime Council (BIMCO), International Association of Dry Cargo Shipowners (INTERCARGO), International Association of Independent Tanker Owners (INTERTANKO), International Chamber of Shipping (ICS), International Tanker Owners Pollution Federation (ITOPF), International Transport Workers' Federation (ITF) and Oil Companies' International Maritime Forum (OCIMF) focused on the legal position with respect to potentially hazardous

substances sold for recycling, on the working conditions and safety provisions for workers in a recycling yard and on environmental control at recycling yards.

The shipping organisation BIMCO has developed a Standard contract for the sale of vessels for demolition and recycling. In a clause on safety and environment, the obligation is mentioned that both seller and buyer are familiar with the IMO guidelines and the seller shall use his best endeavours to give information to the buyer with respect to the recommendations of the IMO guidelines and the buyer likewise shall use his best endeavours to comply with such recommendations. The responsibility of the buyers is also to ensure that after delivery the sellers' representatives are allowed to visit a ship recycling facility to ascertain that safe and environmentally sound practices are being conducted with respect to recycling of the vessel.

In July 2007 the Industry Working Group on Ship Recycling has agreed on recommendation of Interim Measures for Shipowners Intending to Sell Ships for Recycling. At the same time as work on the IMO Draft Convention on the Safe and Environmentally Sound Recycling of Ships continues, industry is aware that the IMO Draft may be subject to a prolonged entry into force and feel that stakeholders' action could contribute to the success of the instrument by means of undertaking certain complementary actions before a full entry into force of the new convention. For that reason the Interim measures regulating yard selection, inventory of hazardous materials, gas freeing, ship recycling plan and reporting to flag state exist.

6. CONCLUSIONS

As waste is any substance or objects which holders discard or intend are required to discard, a ship may become waste and the same time be defined as a ship. Consequently the rules on waste disposal apply also to ships sent for dismantling in concert with special features applied to ships only.

A rising concern about environmental safety, health and welfare matters in the ship recycling industry has resulted in a growing belief that an international instrument to regulate the ship recycling process is urgently needed. The issue of ship recycling has been discussed within the International Maritime Organization, the International Labour Organization Basel Convention and the European Union.

The author urges the forthcoming Convention on Safe and Environmentally Sound Recycling of Ships (Draft Convention), under the auspices of the International Maritime Organization, to include within its scope a significant positive impact on working and environmental condition in ship recycling yards and recycling market. However, it recognises that the Draft Convention may face a prolonged period before entry into force following its adoption.

In the author's opinion, the present measures undertaken by the shipowners who wish to sell their ships in accordance with the Draft Convention can be seen as a good example of a proactive approach of the shipping industry. The key advantage of the approach mentioned is that it will update continually as the work on recycling standards progresses at IMO and more experience is gained. The subject measures enforced by the shipping industry will also assist the development of the Draft Convention by identifying what can be done both commercially and operationally.

The author advocates, first and foremost, the setting up of mandatory requirements given by international treaties at global and regional level in order to secure an efficient and effective solution to the issue of ship dismantling. In a given state of affairs, from the authors' point of view, a ship recycling legal framework could be structured on a voluntary basis, to include commitments from the shipping industry, jointly, with expected mandatory elements of the new international ship dismantling regime. Namely, voluntary agreements by shipowners, their associations and customers may change the substandard practice in ship recycling if suitably designed in terms of substance. Those business commitments may be efficient and comprise clear mechanisms to ensure implementation of the responsibility taken by stakeholders as well as an efficient system of monitoring and control.

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RAZVIJANJE OKOLIŠNE LEGISLATIVE ZA RECIKLIRANJE BRODOVA

Sažetak: Razmatrajući da u svijetu svake godine između 200 i 600 velikih brodova na kraju radnog vijeka idu u rashod i recikliranje, rad daje prikaz potrebe za umanjenjem okolišnih, profesionalno zdravstvenih i sigurnosnih rizika vezanih uz recikliranje brodova. Analizira se, između ostalog, Uredba br.1013/2006 Europskog parlamenta i Vijeća od 14. lipnja 2006. o otpremi otpada, kao i IMO Rezolucija A.962 (23) Smjernice o recikliranju brodova, s izmjenama i dopunama, te Baselska konvencija o nadzoru prekograničnog kretanja opasnih stvari i njegova zbrinjavanja. Autor se zalaže za ustrojavanje obveznih zahtjeva na globalnoj i regionalnoj razini s ciljem osiguravanja djelotvornih i osnaženih rješenja za probleme raspreme broda. Buduća konvencija koja se bavi recikliranjem brodova, pod okriljem Međunarodne pomorske organizacije, imat će svoj odraz na pravila otpreme otpada i druga prava Europske unije o zaštiti okoliša i sigurnosti na radu, uz utjecaj na tržište recikliranja.

Ključne riječi: recikliranje brodova, otprema otpada, okolišna legislacija, opasne stvari