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**Maria-Liza Anagnostopoulou**

**R.N. 7340202102002**

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**SHIP RECYCLING**

**UNDER THE LIGHT OF THE EU LEGAL FRAMEWORK**

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**Supervising Committee;**

Revekka – Emmanouela Papadopoulou, Associate Professor, NKUA

Metaxia Kouskouna, Assistant Professor, NKUA

Emmanouil Perakis, Assistant Professor, NKUA (Supervisor)

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Οι απόψεις και θέσεις που περιέχονται σε αυτήν την εργασία εκφράζουν τον συγγραφέα και δεν πρέπει να ερμηνευθεί ότι αντιπροσωπεύουν τις επίσημες θέσεις του Εθνικού και Καποδιστριακού Πανεπιστημίου Αθηνών.

*[...] If you can meet with triumph and disaster,  
And treat those two imposters just the same*

*'If' by Rudyard Kipling*

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## LIST OF ABBREVIATIONS

AG	Advocate General
BIMCO	Baltic and International Maritime Council
BVerfG	German Federal Constitutional Court
Charter/CFREU	Charter of Fundamental Rights of the European Union
CJEU	Court of Justice of the European Union
CLC	Civil Liability Convention
Colo JInt'lLEnvtlL&Pol'y	Colorado Journal of International and Environmental Law & Policy
Denv. J. Int'l L & Pol'y	Denver Journal of International Law & Policy
EC	European Commission
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
ECSA	European Community Shipowners' Associations
EEA	European Economic Area
EEC	European Economic Community
EFTA	European Free Trade Association
EMSA	European Maritime Safety Agency
EP	European Parliament
EU	European Union
GDP	Gross domestic product
GHG	Greenhouse gas emissions
HNS	Hazardous and Noxious Substances (Convention)
ICS	International Chamber of Shipping
IHM	Inventory of Hazardous Materials
IMO	International Maritime Organization
ILO	International Labour Organization
Int'l L. Rev.	International Law Review

JEEPL	Journal for European Environmental Planning Law
J. Env. L. & Prac.	Journal of Environmental Law and Practice
Law Env't & Dev. J	Law, Environment and Development Journal
LLMC	Limitation of Liability for Maritime Claims (Convention)
Lloyd's Rep	Lloyd's Law Report
LNG	Liquefied Natural Gas (tanker)
LPG	Liquefied Petroleum Gas (tanker)
MARPOL	International Convention for the prevention of Pollution of Ships
MEPC	Marine Environment Protection Committee
MoU	Memorandum of Understanding
MRV	Monitoring, reporting and verification (Regulation)
NGO	Non – Governmental Organization
Ocean Dev. & Int'l L	Ocean Development and International Journal
Ocean Y.B.	Ocean Yearbook
OECD	Organization for Economic Co-operation and Development
PCB's	Polychlorinated biphenyls
P&I Club	Protection and Indemnity Club
RECIEL	Review of European Community & International Environmental Law
RevEurComp.&Int'lEnvtl	Review of European Comparative&International Environmental Law
SRC	Ship Recycling Convention (Hong Kong Convention)
SRR	Ship Recycling Regulation
STCW	Standards of Training, Certification and Watchkeeping for Seafarers
S&P	Sales and Purchase Market
TCN	Third – Country National(s)
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union
The Georgetown Int'l Env'tl. Law Review	The Georgetown International Law and Environmental Law Review



Trade L. & Dev.	Trade, Law and Development
Tul. Mar. L. J.	Tulane Maritime Law Journal
UGS	Union of Greek Shipowners
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Program
USCG	United States Coast Guard
WSR	Waste Shipment Regulation

# INTRODUCTION

## A. Brief historical background of the subject

Prior to the earliest recorded ship breaking cases, the vast majority of vessels either suffered damages caused by fire or accidents, while operating at seas, or were completely lost. Vessels at that time were built out of wood, meaning that they were wholly exposed to any kind of peril of the sea. Thus, the concept of recycling a ship, in order to reuse her parts, was out of the equation. However, later on and particularly during the 1800's the shipbuilding industry shifted entirely and gradually from wood to iron and from iron to steel. With the introduction of steel, which is an element with plenty of advantages compared for example to wood, such as high tensile strength and low cost in production and maintenance, all of the other materials became obsolete. The substitution of the materials alone that were used to build a vessel, introduced great changes and growth to the industry.

The first case of shipbreaking ever to be recorded was 'The SS Great Eastern'<sup>1</sup>. This steamship was considered at the time of her launch to be the prototype of the modern ocean liners. Designed by Isambard Kingdom Brunel and John Scott Russell, she was intended to carry both cargo and passengers between England and India<sup>2</sup>. The Great Eastern was for many years the largest ship in the world and the first to have a double hull<sup>3</sup>. However, due to her record size no harbour or no dock in the world at the time could serve her purpose as a passenger ship. After many voyages and suffered damages, she was ultimately sold to a copper mining and metal smelting business in 1887, in order to be scrapped in England during 1888 and 1889. Despite the fact that the copper smelting industry in Swansea was the cause for pollution and damage both in the surrounding environment and in workers' health due to arsenic, the local industry had to rely upon these practices so as to boost the collapsing economy. Hence, the Great Eastern marked the beginning of an era where vessels were being dismantled and their parts were being recycled for further use.

With the aim to facilitate the procedure of cutting enormous steel plates from the vessel in smaller pieces, new tools were invented, such as the oxyacetylene torch. But in spite of that, the scrap metal business became more dangerous as the risk of fires and gas explosions arose. It was though during the 1930's and the recession, which led to unemployment and thus to available workforce that turned into the shipbreaking industry for employment. Until the 1960's England held the most significant place in the scrap metal industry. However, it was not long after the WWII that the industry, as a consequence of high costs, moved from England to Asia and until

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<sup>1</sup> Michael Stammers, End of voyages; The Afterlife of a Ship, Tempus publications, 2005, citation by Maytee Gomez Salgueiro, The hazardous effects of ship scrapping and recycling on workers' rights and the environment, City College of New York, 2015, p. 21.

<sup>2</sup> See Encyclopedia Britannica official website on the Great Eastern;  
<https://www.britannica.com/topic/Great-Eastern>

<sup>3</sup> Maytee Gomez Salgueiro, The hazardous effects of ship scrapping and recycling on workers' rights and the environment, City College of New York, 2015, p. 22.

1980 East Asia (e.g. Japan, Korea and Taiwan) dominated. Yet again, the industry, by being high – labour intensive, moved to India, Pakistan and Bangladesh, due to lower labour costs<sup>4</sup>.

### **A. a. Research questions and structure of the research**

The main objectives of this research are to highlight the key role that ship - recycling industry holds in sustainable development and economic growth, to have an insight and a better understanding concerning its regulatory framework (International and European) in its mission to tackle the negative adverse effects on human health, occupational safety and environmental degradation and to question whether these sets of rules are sufficient and efficient or implemented properly, to scrutinize their deficiencies and to examine whether there are still steps to be taken for safe and environmentally sound ship – recycling.

The research is structured based upon the following questions;

1. What are the duties imposed on shipowners and what is the liability regime at international and European level? Is it effectively enforced?
2. Why did the international legal regime on ship recycling failed to be adopted by countries until today?
3. What is the role of EU initiatives on ship recycling? Is the EU competent to regulate? Is the EU legislation effective and sufficient? To what extent it has been properly implemented?
4. How does the Regulation (EU) 1257/2013 promote safe and environmentally sound ship - recycling? What are the new elements introduced with the Ship Recycling Regulation (hereinafter referred to as ‘SRR’)?
5. Could a criminal liability provide more effective solutions?

The herein study is constructed in two parts, each one of which complements the other, forming a cohesive whole that examines the ship – recycling regime;

- The first part of the dissertation presents the obligations of the shipowner that derive from the International and European legal framework concerning the ship – recycling. Hence, from the crucial moment that a shipowner decides and explicitly discloses his intention to dispose of a vessel, the main actors both the shipowner, who constitutes a waste generator under the Basel Convention and the Waste Shipment Regulation or the one with certain obligations under the Hong Kong Convention and the Ship Recycling Regulation , and the ship – recycling facility, are to be found with specific duties, in order for the International and European community to achieve their underlying goals. Thus, to ensure acceptable working conditions and to avoid environmental degradation, both of which are the main adverse effects to be observed from the shipbreaking

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<sup>4</sup> Maytee Gomez Salgueiro, The hazardous effects of ship scrapping and recycling on workers’ rights and the environment, City College of New York, 2015, p. 24.

practices. The study approaches the obligation regime imposed, in particular to shipowners, in a comparative way so as to comprehend the similarities and the differences between the international and European legal framework and to conclude whether they effectively regulate this distinct yet with peculiarities, industry of shipbreaking.

- The second part of this dissertation approaches the liability regime of the main actor of the ship – recycling practice, thus the shipowner who decides to dispose of his vessel. The liability regime is scrutinized under the International legal framework of the Basel Convention, the Basel Protocol on liability and compensation for any damage caused from transboundary movements of hazardous wastes and their disposal and the Hong Kong Convention, despite the fact that the two latter legal instruments has not yet entered into force, due to the lack of ratifications. Moreover, the liability regime is scrutinized under the European legal framework, whereas the study focuses on the two Regulations concerning the shipments of hazardous wastes and the ship – recycling as such. Finally, it is attempted to conclude to safe results as to the effectiveness and efficiency of these regimes on liability, in case that a shipowner breaches his responsibilities under International and European law, when he intends to ship his vessels to be dismantled.

## B. Ship recycling within the EU

### B. a. EU and environment

Among the fundamental goals of the European Union (EU), as these are set out in its primary law and especially in the Treaty of the European Union (TEU)<sup>5</sup>, and upon which the whole structure of this unique<sup>6</sup> -never to be seen before- organization is based, the European Union alongside with the establishment of the Internal Market, according to article 3 par. 3 TEU *[...] shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance.* In other words, an eco – friendly economic growth, namely a sustainable development of Europe and within Europe, in tandem with the high level of protection and amelioration of the environment are set as core targets across the Union, so much as these to be placed among the profound and basic concepts of the Union’s construction, among the primary European union law. Though the two goals, both the sustainable development and the protection of environment are sought for, there is an evident dichotomy between them, specifically in respect to the means of achieving them, which can undermine the one or the other goal. In the above - mentioned dichotomy, one of the tools that can be of use in the balance between the two goals of the Union, is the principle of environmental integration. Already in 1997, the Treaty of Amsterdam introduced the requirement of integrating environmental protection and improvement requirements into other EU’s policies or any kind of activities. Following the entry into force of the Treaty of Lisbon in 2009, this provision is included in the TFEU. Specifically, article 11 TFEU (ex. Article 6 TEC) provides that *‘Environmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities, in particular with a view to promoting sustainable development.’* The importance of the principle of integration is reaffirmed in the 7<sup>th</sup> Environmental Action Programme to 2020<sup>7</sup> (setting at the same time long – term visions until 2050), which emphasizes that environmental integration should play the central

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<sup>5</sup> Article 3 § 1 TEU (ex. Article 2 TEU); *‘The Union’s aim is to promote peace, its values and the well-being of its peoples.’*

§ 2; *‘The Union shall offer its citizens an area of freedom, security and justice without internal frontiers, in which the free movement of persons is ensured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime.’*

[...] § 4; *‘The Union shall establish an economic and monetary union whose currency is the euro.’*

§ 5; *‘In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.’*

§ 6; *‘The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Treaties.’*

<sup>6</sup> See more Niamh Nic Shuibhne, What is the autonomy of EU law and why does that matter, *Nordic Journal of International Law*, 2019, p. 9-40 and Case 6/64 Costa/Enel, p. 593.

<sup>7</sup> European Commission, Directorate-General for Environment, *General Union environment action programme to 2020: living well, within the limits of our planet*, Publications Office, 2014, <https://data.europa.eu/doi/10.2779/66315>

role in all relevant policy areas, in order to provide some relief to the environmental impact from other sectors' policies and activities and in order to meet environmental and climate – related targets of the Union. Moreover, environmental integration includes both horizontal and vertical integration, whereas (a) horizontal environmental integration aims for environmental sustainability across different thematic objectives (e.g. increasing economic competitiveness by reducing business costs through more efficient use of resources) and (b) vertical environmental integration has environmental concerns, even though there may be socio – economic effects. For example, investing in basic environmental infrastructure should not only help meeting the requirements of the EU environmental legislation, but it may also act as a vital pillar for attracting other investments. According to article 191 TFEU (ex. Article 174 TEC), under the title XX Environment, § 1; *'Union policy on the environment shall contribute to pursuit of the following objectives; a. preserving, protecting and improving the quality of the environment, b. protecting human health, c. prudent and rational utilization of natural resources, d. promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.'* Yet again, it is more than obvious that the Union aims in high standard protection of the quality of the environment. However, the antithesis between the two aforementioned major goals still remains and the balance between them, as well as the usage of the tools that the EU has in its disposal, is indeed both a challenge and a prerequisite for the overall well – being of the Union.

### **B. b. EU/Greece and shipping industry**

Within the EU, the political and economic union of twenty - seven (27) member-states, it is estimated that nearly 23.400 vessels or else four out of every ten ships, are controlled by European shipowners<sup>8</sup>. Bearing in mind that roughly ninety percent (90%) of the volume of international trade in goods is seaborne, translated into seventy six percent (76%) of the EU's external trade and thirty two percent (32%) of it's internal transport of goods is carried by ships, one can conclude that the European shipping industry contributes around €54 billion to the EU's gross domestic product (GDP). Taking into account the spill - over effects to other sectors of the EU economy, the total contribution stands at €149 billion, whereas the industry is supporting around 2 million jobs<sup>9</sup>. In other words, shipping industry and maritime transport is one of the most valuable European assets, economically, socially and culturally and directly adds to the economic development and prosperity of the Union and of each member – state' s market.

Regarding Greece, which today counts forty - one years as a member-state of the EU (n.b. Greece joined the EU in January the 1<sup>st</sup> of 1981), twenty - one years as a member-state to the

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<sup>8</sup> The economic value of the EU Shipping Industry, Oxford Economics Infographics, European Community Shipowners' Associations (ECSA), 2020,

[https://www.ecsa.eu/sites/default/files/publications/ECSA\\_shipping\\_infographic\\_2020.pdf](https://www.ecsa.eu/sites/default/files/publications/ECSA_shipping_infographic_2020.pdf)

[https://safety4sea.com/wp-content/uploads/2020/12/Oxford-Economics-The-Economic-Value-of-EU-Shipping-2020\\_12.pdf](https://safety4sea.com/wp-content/uploads/2020/12/Oxford-Economics-The-Economic-Value-of-EU-Shipping-2020_12.pdf)

<sup>9</sup> See supra footnote no 7 and Appendix 1. The economic value of the EU industry in 2020, ECSA, The economic value of the EU Shipping Industry, Oxford Economics Infographics, 2020.

Eurozone (n.b. Greece adopted the euro as its currency in 2001) and twenty - two years as member-state of the Schengen area (n.b. Greece joined the Schengen area as a member-state of the EU in 2000), it is considered the top ship - owning nation in the world, as Greek shipowners with 5.514 vessels under their ownership currently control approximately twenty-one percent (21%) of the global fleet, in terms of capacity (dwt<sup>10</sup>)<sup>11</sup>. The total capacity of the Greek-owned fleet has progressively increased over the years and currently the Greek ship - owners control thirty - one point seventy - eight percent (31,78%) of the world oil tanker fleet, twenty - five point one percent (25,01%) of the world bulk carriers, twenty - two point thirty five one percent (22,35%) of the world liquified natural gas (LNG) carriers, fifteen point sixty percent (15,60%) of the world chemical and product tankers, thirteen point eighty – five percent (13,85%) of the world liquified petroleum gas (LPG) carriers, nine point thirty – three percent (9,33%) of the world containerships operating across the globe<sup>12</sup>. Furthermore, the Greek shipping industry is the backbone of the European industry, as the Greek – owned fleet represents fifty – nine percent (59%) of the EU – controlled fleet<sup>13</sup>, with more than seventy – five percent (75%) of the EU – controlled fleet being active in the bulk/tramp sector<sup>14</sup>. Ranking eighth in terms of dwt and second in the EU after Germany<sup>15</sup>, Greece is one of the main shipping registries worldwide. Moreover, Greece remains on the International Maritime Organization’ s (IMO) ‘List of confirmed Standards on Training, Certification an Watchkeeping for Seafarers (STCW) Parties’ and on the White Lists of the Paris and the Tokyo Memorandum of Understanding (MoU). Greece is also included in the Flag Administrations List of the United States (U.S.) Coast Guard (USCG) QUALSHIP 21 Program, while it is placed among the best – performing Flag State with positive indicators across all categories in the Flag State Performance Table published by the International Chamber of Shipping (ICS)<sup>16</sup>. One of the many examples of the above are indicatively, the ratification of IMO Conventions and Port State Control procedures.

### **B. c. Environment and shipping industry**

While shipping is widely recognized as the ‘cleanest’ mode of transport for large quantities of cargo, the vast majority of operations it conducts, still adds up to substantial emissions and waste discharges. Thus, it is within the continuous priorities and objectives of the European Commission particularly to both strengthen the competitiveness of the EU shipping industry and to improve the environmental performance of the sector, focusing on efforts to introduce

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<sup>10</sup> Deadweight tonnage is the weight measure of a vessel’s carrying capacity and includes cargo, fuel and stores.

<sup>11</sup> See Appendix 2. Ownership of the world fleet (2011-2021), United Nations Conference on Trade and Development (UNCTAD), Review of Maritime Transport, 2011-2021, UGS Annual Report 2021-2022, p. 8.

<sup>12</sup> See Appendix 3. Ship type analysis of the Greek-owned fleet, Union of Greek Shipowners (UGS) calculations, based on data from IHS Global Limited, March 2022, Annual Report 2021-2022, p. 9.

<sup>13</sup> See Appendix 4. Ownership of the EU-controlled fleet, European Commission, EU Transport in Figures, Statistical Pocketbook, 2021, UGS Annual Report 2021-2022, p. 10.

<sup>14</sup> See Appendix 5. Ship type analysis of the EU-owned fleet, European Commission, EU Transport in Figures, Statistical Pocketbook, 2021, UGS Annual Report 2021-2022, p. 10.

<sup>15</sup> Supra footnote 12.

<sup>16</sup> International Chamber of Shipping (ICS), Shipping Industry Flag State Performance Table 2021-2022, Marisee Publications, 2022, p. 6-7.

environmentally friendly measures, in order to establish a European sustainable shipping industry which will act as the backbone of the EU transport network<sup>17</sup>. The European Commission's aim is to promote on the one hand the competitiveness of Europe's maritime industries but at the same time to protect Europe with very strict safety rules, preventing sub-standard shipping, reducing the risk of serious maritime accidents and minimizing the environmental impact of maritime transport. It also maintains a continuous dialogue with all the EU shipping and trading partners in the world, e.g. the USA, China, India etc. Since naturally a lot of attention has been drawn to the monitoring and reporting of emissions from the shipping industry, the EU has adopted in 2015, as amended in 2016, an obligatory legal framework<sup>18</sup> for the monitoring, reporting and verification (MRV) of CO<sub>2</sub> emissions and other relevant information from maritime transport<sup>19</sup>. The aforementioned priority though appears to be a shared mission for both the EU's Institutions and the ship-owners, who are constantly investing in new, energy efficient vessels and in environmental equipment, work towards the sustainability of the sector, fight against climate change through innovation and research and last but not least are committed to achieve the international CO<sub>2</sub> reduction targets, through new and alternative fuels<sup>20</sup>. The main focus lies on vessels fueled by liquified natural gas (LNG) due to the significant order book for these, despite the fact that many decarbonization experts reject LNG as a transition fuel and instead advocate for green methanol, green ammonia and green hydrogen<sup>21</sup>. One of the biggest issues for maritime decarbonization is the twenty plus lifespan of the vessels<sup>22</sup>; nonetheless older ones can be retrofitted with green equipment, for example wind – assisted propulsion systems or low sulphur fuels and ballast water systems, such as exhaust gas cleaner systems, also known as 'scrubbers'<sup>23</sup>. In light of the European Green Deal, and the industry's own target to decarbonize under the International Maritime Organization's (IMO) 'Initial Strategy on Reduction of GHG Emissions from ships'<sup>24</sup>, which was adopted in 2018, the shipping industry appears to make progress, in order to meet those targets<sup>25</sup>. Respectively, in 2021 the Commission adopted a Communication, known as the Green Deal or else 'Fit for 55'<sup>26</sup>,

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<sup>17</sup> Official site of the EU, European Commission, International Cooperation and coordination,

[https://transport.ec.europa.eu/transport-modes/maritime/international-cooperation-and-coordination\\_en](https://transport.ec.europa.eu/transport-modes/maritime/international-cooperation-and-coordination_en)

<sup>18</sup> Regulation (EU) 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Directive 2009/16/EC, as amended in 16/12/2016.

<sup>19</sup> Lomonina Tsaroucha, Future challenges for the EU Maritime Safety Regime, chapter 3; Environmental Sustainability for Maritime Safety and Security; Legal implications to ships, cargo and the human element, 9<sup>th</sup> International Conference of Maritime Law, p. 30.

<sup>20</sup> ECSA, Sailing ahead, European shipping sets ambitious goals for its next chapter, Strategic priorities for EU shipping policy 2019-2024, p. 8-9.

<sup>21</sup> Annabel James, Joanna Tuft, Haris Zografakis, Catching a green wave, Financial World Magazine, 2022.

<sup>22</sup> Martin Stopford, Maritime Economics, 3<sup>rd</sup> ed, 2009, p. 71, where; *'the continuous progress in ship technology, combined with the cost of ageing over the twenty – or thirty- year life of a ship, presents the shipping industry with an interesting economic problem'*.

<sup>23</sup> Supra footnote 20.

<sup>24</sup> International Maritime Organization (IMO), Annex 11 Resolution MEPC.304(72) adopted on 13 April 2018, Initial IMO Strategy on reduction of GHG emissions from ships

[https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Resolution%20MEPC.304%2872%29\\_E.pdf](https://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Resolution%20MEPC.304%2872%29_E.pdf)

<sup>25</sup> ECSA, Position Paper; A Green Deal for the European shipping industry, Martin Dorsman, 2020, p. 2 and p. 4.

<sup>26</sup> COM (2021) 550 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Fit for 55'; delivering the EU's 2030 Climate Target on the way to climate neutrality.



unveiling a proposed package for the Union's climate neutrality, aspiring to reduce greenhouse gas emissions (GHG) by at least 55% by 2030 in comparison with 1990 levels. The Commission proposed, via the 'Fuel EU Maritime proposal to promote sustainable maritime fuels', new requirements for ships, regardless of their flag, arriving to or departing from EU ports, by imposing a maximum limit on the GHG content of the energy they use and by making more stringent limitations<sup>27</sup>.

Whilst the following could constitute a deviation from the main point of this paragraph, it is worth mentioning though at this point that so as to achieve EU integration, a differentiated range of instruments besides the traditional legislative ones<sup>28</sup>, as these are set out in the Treaties<sup>29</sup>, is required as alternative regulatory instruments including, inter alia, soft law<sup>30</sup>. On this basis, soft law can be defined as the set of rules of conduct that are laid down in instruments, which have not been attributed legally binding force as such, but nevertheless may have certain indirect legal effects and that are aimed at and may produce practical effects<sup>31</sup>. Commission's communications fall within the interpretative and decisional instruments<sup>32</sup> of soft law that intend to provide guidance for the interpretation and application of existing EU law; not to replace legislation but rather to complement it<sup>33</sup>. In other words, even if the proposed by the Commission Green Deal has no legally binding force, its importance is of great deal in light of the fact that it promotes sustainable development with climate – friendly industries and clean technologies and respect to the quality of the environment.

Nonetheless, it is estimated that in the total world CO<sub>2</sub> emissions, the shipping industry in particular, compared to other sectors, such as road or air transportation, adds relatively low rates up to two point five percent (2,5%)<sup>34</sup> and quite similar rates to the total greenhouse gas emissions (GHG). Yet, the shipping industry is expected to comply with the new strict environmental requirements.

#### **B. d. Introduction to ship recycling**

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<sup>27</sup> COM (2021) 550 final, p.8-9.

<sup>28</sup> See more Kalavros, Georgopoulos, *The European Union Law*, Nomiki Vivliothiki, vol. 1, 2010, p. 230-232 and Silvere Lefevre, *Les actes communautaires atypiques*, Bruylant, 2006.

<sup>29</sup> Article 288 TFEU (ex. Article 249 TEC), *The legal acts of the Union*; § 1; *'To exercise the Union's competences, the institutions shall adopt regulations, directives, decisions, recommendations and opinions [...]'*.

<sup>30</sup> Linda A.J. Senden, *Soft Law and its implications for institutional balance in the EC*, *Utrecht Law Review*, vol.1, issue 2, 2005, p. 79.

<sup>31</sup> *Ibidem*, p. 81.

<sup>32</sup> The only provision in the Treaty that can be considered to confer in a general manner explicit powers to Commission to adopt certain legal instruments is Article 17 TEU which provides in § 1 that; *'The Commission shall promote the general interest of the Union and take appropriate initiatives to that end [...]'* and in § 2 that; *'Union legislative acts may only be adopted on the basis of a Commission proposal, except where the Treaties provide otherwise. Other acts shall be adopted on the basis of a Commission proposal where the Treaties so provide'*.

<sup>33</sup> *Supra* footnote 30, Linda A.J. Senden, *Soft Law and [...]*, p. 82.

<sup>34</sup> See Appendix 6. World CO<sub>2</sub> emissions by sector, 2019, International Energy Agency, Net Zero Emissions by 2060 Scenario Data, 2021, UGS Annual Report 2021-2022, p. 15.

Despite the fact that generally there is a lot of interest regarding the beginning of a ship's life from shipbuilding to her maiden voyage and her operation, it can easily come to one's attention that there is usually little coverage about the dismantling or the green recycling of vessels. The truth is that the dismantling of ships has aspects of tremendous significance, notwithstanding the fact that it is indeed a less glamorous business. The shipbreaking/demolition/scrapping<sup>35</sup> market constitutes a distinct sector of the shipping industry<sup>36</sup>, which effectively deploys vessels at the end of their lives. Since not every ship can remain intact, old, namely of twenty plus years of lifespan, or obsolete vessels have to be dismantled. Inevitably the question of whether all or parts of the ship can be actually recycled arises. Some parts can be effectively recycled, while other parts are not suitable for recycling<sup>37</sup>. It is estimated that roughly ninety percent (90%) of a ship can be recycled, meaning that, for example out of approximately 30.000 tons which is more or less a ship's weight, nearly 25.000 tons of iron and steel can in fact be recycled<sup>38</sup>.

Concerning the procedure that the scrap industry follows in order to recycle a ship, it is rather simple. When a shipowner has a vessel which he cannot longer sell on the secondary market for continued trade<sup>39</sup> or when he estimates that his vessel's economic exploitation is no longer feasible, he hires a broker who handles the sale of the ship in order to be recycled. The buying is usually done by intermediaries, also known as 'cash buyers', who buy the ship for cash and then proceed with her selling to the demolition or else shipbreaking yards, most of which are located in Asia (e.g. India, Pakistan, Bangladesh and China<sup>40</sup>). The price of the sale, however volatile and often non foreseeable, is negotiable and determined by various factors, such as the general condition of the vessel, its suitability for scrapping, the availability of ships for scrapping in the market at a given moment and the demand for scrap metal. In respect to the latter, the pieces of steel, iron ore and copper ore that are extracted from the vessel, are channeled to the local Asian markets, according to their demands and provide a sufficient supply of raw materials that are mainly used in construction<sup>41</sup>. It would be more harmful to the environment, not to mention that it would be unprofitable as well, to mine from scratch all of the materials that can be provided through green recycling.

Hence, it is more than apparent that ship recycling effectively contributes both directly (for example to the shipowners) and indirectly (to the society and to the environment) to development worldwide and within the Union in particular. However, two major problems emerge from the ship recycling practices exercised in the most frequently used shipbreaking facilities around the world,

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<sup>35</sup> The terms are often used interchangeably without distinction.

<sup>36</sup> Martin Stopford, *Maritime Economics*, 3<sup>rd</sup> ed, 2009, p. 177, where; '*the shipping industry is divided into four markets; 1. the freight market trades in sea transport, 2. the sale and purchase market (S&P) trades second – hand ships, 3. the newbuilding market trades new ships and 4. the demolition market deals in ships for scrapping*'.

<sup>37</sup> Vincent Power, *EU Shipping Law*, 3<sup>rd</sup> ed., vol. 1, 2019, p. 1198.

<sup>38</sup> Martin Stopford, *Maritime Economics*, 3<sup>rd</sup> ed, 2009, p. 75 and Gabriela Arguello Moncayo, *International Law on ship recycling and its interface with EU law*, *Marine Pollution Bulletin*, 2016, p. 2, where; '*about 80-90% of a ship's 'dry' weight consists of materials that can be re-used (mainly steel)*'.

<sup>39</sup> *Supra* footnote 36.

<sup>40</sup> *Infra* footnote 52 and Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 28, footnotes 16-19.

<sup>41</sup> Martin Stopford, *Maritime Economics*, 3<sup>rd</sup> ed, 2009, p. 212.

thus shipbreaking, due to, inter alia, the structural complexity of the vessels, has grown into a crucial occupational, safety, health and environmental hazard<sup>42</sup>. According to the International Labour Organization (ILO) shipbreaking is listed among the most dangerous of occupations, with unacceptably high levels of fatalities, injuries and work – related diseases<sup>43</sup>. Workers most commonly lack basic training and personal protective equipment, they are exposed to tremendous risks from the ship breaking facility, among which is fire, gas explosions, large chunks of metal falling from higher levels of the ships, while they are being dismantled piece by piece, limited access to health services, no insurance, inadequate sanitary and housing facilities. On top of all of the aforementioned is workers' exposure to toxic heavy metals, such as asbestos<sup>44</sup>, lead, mercury, polychlorinated biphenyls (PCBs), black oil, brown oil, isocyanates, sulfuric acid etc. In addition to the severe impact on health of workers, shipbreaking is a highly polluting industry, where all of the toxic substances released from the vessel not only are they inhaled, as already mentioned, by the workers but are also dumped into the soil and/or the sea. The vast majority of ship recycling facilities lack waste management systems and therefore these particular practices have massive and long - term effect on the surrounding environment, flora, fauna and the local communities<sup>45</sup>. However, both IMO and ILO work tirelessly, in order to minimize occupational, health and environmental risks related to ship recycling, in view of the fact that long – term sustainability of this industry can be achieved and its contribution to sustainable development around the world can be enhanced.

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<sup>42</sup> See more on Norwegian Maritime Authority official website on environmental challenges and poor working conditions;

[https://www.sdir.no/en/shipping/vessels/environment/scrapping-of-ships/#Environmental\\_challenges](https://www.sdir.no/en/shipping/vessels/environment/scrapping-of-ships/#Environmental_challenges)

[https://www.sdir.no/en/shipping/vessels/environment/scrapping-of-ships/#Poor\\_working\\_conditions](https://www.sdir.no/en/shipping/vessels/environment/scrapping-of-ships/#Poor_working_conditions)

<sup>43</sup> Although the accidents in shipbreaking sites are most commonly not officially recorded by any national authority, see Appendix 7 for numbers reported by NGO Shipbreaking Platform <https://shipbreakingplatform.org/>.

Also see International Labour Organization (ILO) official website on hazardous work;

[https://www.ilo.org/safework/areasofwork/hazardous-work/WCMS\\_356543/lang--en/index.htm](https://www.ilo.org/safework/areasofwork/hazardous-work/WCMS_356543/lang--en/index.htm)

<sup>44</sup> Asbestos is a naturally occurring mineral which has been widely used in different sectors of industry, due to its ability to insulate, meaning that it is resistant to heat, fire and chemicals and does not conduct electricity. Nonetheless, asbestos is a particularly carcinogenic substance and therefore it is classified as a category 1A carcinogen in Regulation (EC) 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures. If products containing asbestos are disturbed, tiny fibres can be inhaled, resulting gradually to severe diseases, e.g. asbestosis, mesothelioma and other forms of cancer. As a result, it is a banned material within the EU since 2005 and thus it is prohibited to extract, manufacture and process asbestos products or products containing intentionally added asbestos within the EU, with the only exception the treatment and disposal of products resulting from demolition and asbestos removal, under stringent legal framework. Moreover, the Union in an effort to protect workers from health risks caused by asbestos exposure at work, adopted Directive 2009/148/EC of the European Parliament and of the Council on the protection of workers from the risks related to exposure to asbestos at work, setting strict exposure limits and specific safety requirements, including in respect with demolition, repairing, maintenance and asbestos removal work, workers' training and health monitoring.

<sup>45</sup> Nida Hamid, Shipbreaking industry of Pakistan; Problems and prospects, Maritime Study Forum, 2018, p. 16-20.

## C. An outline of the legal regulatory framework

### C. a. International legal framework

Each year hundreds of ships are being dismantled. Green ship recycling offers plenty of advantages, among which central role holds the conception of reusing valuable materials, mainly consisting of steel and iron, from vessels that are no longer operational. In this manner, the ship recycling industry reduces the pressures and thus appeases the mining industry. However, current recycling facilities established in South Asia (e.g. India, Pakistan, Bangladesh), where the vast majority of large ships go to die<sup>46</sup>, are held accountable for two severe problems. First of all, there are limited or sometimes no safety measures at all for the workers, low standards on occupational health, no training programs for employees and lack of proper protective equipment, despite the fact that sui generis shipbreaking is considered to be one of the most dangerous of occupations<sup>47</sup> and despite the fact that, due to its complexity, vessels' demolition demands special know-how<sup>48</sup>. In addition to that, shipbreaking sites most commonly use the open beaching method<sup>49</sup>, in order to scrap a vessel. What they practically do is to sail the ship on full speed towards the beach at high tide and then scrap it on the intertidal mudflat. With this method, most of the hazardous materials that ships contain, such as asbestos<sup>50</sup>, are inevitably released into the coastal flora and fauna, the soil and air having ultimately a tremendous impact on the surrounding environment.

The need to address the problem of both social and environmental negative impact, associated with the ship recycling industry's practices, which contains by definition transboundary elements<sup>51</sup>, could only be satisfied by international organizations' initiatives (mainly IMO and ILO)<sup>52</sup>, namely at an international level. For that reason, the first international legal document to be associated with<sup>53</sup> ship recycling was the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal of 1989 (hereinafter referred to as on 'Basel Convention'). In 1987 United Nations Environmental Program (UNEP)<sup>54</sup> adopted the 'Cairo

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<sup>46</sup> NGO Shipbreaking Platform, Press release on lists of ships dismantled worldwide in 2021, where; '763 ocean-going commercial ships and floating offshore units were sold to the scrap yards in 2021. Out of these, 583 of the largest tankers, bulkers, floating platforms, cargo and passenger ships ended up on the beaches of Bangladesh, India and Pakistan, amounting to near the totality of the gross tonnage dismantled globally' <https://shipbreakingplatform.org/platform-publishes-list-2021/>

<sup>47</sup> Supra footnote 43.

<sup>48</sup> Bernike van Werven, European Ship Recycling; can we make a difference towards safe and environmentally sound practices?, University of Antwerp, 2019, p. 2.

<sup>49</sup> See infra footnote 167.

<sup>50</sup> Supra footnote 44.

<sup>51</sup> Despoina Farmakidi, The legal framework (International and European) of shipbreaking; Shipowner's obligations and liability, University of Athens, 2019, p. 18.

<sup>52</sup> Rolando D. Legaspi, Ship Recycling; analysis of the shipbreaking countries in Asia, Word Maritime University, 2000, p. 51-57.

<sup>53</sup> The Basel Convention was not adopted ad hoc to regulate the ship recycling industry.

<sup>54</sup> See more on Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, International Max Planck Research School (IIMPRS) for Maritime Affairs at the University of Hamburg, Hamburg Studies of Maritime Affairs, Springer-Verlag Berlin Heidelberg, vol. 24, 2013, p. 9 and UN GA Resolution 2997 (XXVII) of 1972, <http://www.un-documents.net/a27r2997.htm>

Guidelines’ as a resolution to raise awareness on the export of hazardous waste to developing countries and to provide assistance to the implementation of safe hazardous waste disposal systems<sup>55</sup>. This resolution, in spite of the fact that it had no legally binding force, was the threshold for the Basel Convention, which ultimately came into force in 1992<sup>56</sup>. The key – point elements of the Basel Convention are the quantitative reduction of hazardous wastes, the environmentally safe and sound management and disposal of wastes and the promotion of local management of wastes. From the spirit of the Basel Convention, but also particularly with respect to the latter objective, meaning the disposal and overall process of hazardous wastes near the place of their production, one can safely come to the conclusion that it safeguards basic international and European environmental principles, i.e. the principle of proximity and the polluter pays principle<sup>57</sup>. In order to ensure the respect and implementation primarily of the principle of proximity, in 1995 the Ban Amendment was added to the Basel Convention and as of December 2019 is in force<sup>58</sup>. The objective of the amendment is to prohibit the export of hazardous wastes from Organization for Economic Co-operation and Development (OECD) countries to non – OECD countries. Regarding the regulatory framework of compensations, the ratifying parties concluded in 1999 the Basel Protocol on Liability and Compensation for Damage resulting from transboundary movements of hazardous wastes and their disposal (from now on the ‘Basel Protocol’), so as to regulate any caused damages as a result from the shipment of hazardous materials. However, due to insufficient ratifications, the Basel Protocol is not yet in force<sup>59</sup>.

From the joint efforts of IMO, ILO and the Basel Secretariat<sup>60</sup>, following the IMO Resolution on a new legally binding instrument on ship recycling<sup>61</sup> and a request from the Marine Environment Protection Committee (MEPC) to the Council of IMO<sup>62</sup>, the Hong Kong Convention for the safe and environmentally sound recycling of ships was adopted in 2009. The Hong Kong Convention attempts to safeguard a rather conscious and sustainable approach of the whole life of a vessel, from construction and operations to the end of its life and its recycling. The main objective that the Convention sets is to *‘reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by ship recycling, and enhance ship safety, protection of the human health and the environment throughout a ship’s*

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<sup>55</sup> Diana L. Goldwin, The Basel Convention on transboundary shipment of hazardous waste; An opportunity for industrialized nations to clean up their acts, Denver Journal of International Law & Policy (Denv. J. Int’l L & Pol’y), vol. 2 (1), 1993, p. 198.

<sup>56</sup> Today the Basel Convention counts 120 parties and 53 signatories, see more on the Basel Convention’s official website <http://www.basel.int/?tabid=4499#enote1>

<sup>57</sup> M. Buckingham, The Basel Convention, Colorado Journal of International and Environmental Law & Policy (Colo. J. Int’l L Envtl. L. & Pol’y), vol. 10, 1999, p. 291. See also infra footnote 217.

<sup>58</sup> See more on the Basel Convention’s official website on the countries who ratified the Ban amendment <http://www.basel.int/Countries/StatusofRatifications/BanAmendment/tabid/1344/Default.aspx>

<sup>59</sup> Twelve Countries have already ratified the Basel Protocol, see more on the Basel Convention’s official website <http://www.basel.int/Countries/StatusofRatifications/TheProtocol/tabid/1345/Default.aspx>

<sup>60</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 29.

<sup>61</sup> See more on the IMO official website <https://www.imo.org/en/OurWork/Environment/Pages/Ship-Recycling.aspx> and <file:///C:/Users/new/Downloads/981.pdf>

<sup>62</sup> Supra footnote 60, Urs Daniel Engels, p.33.

*operational life*<sup>63</sup>. Upon entry into force, various requirements for ships, for ship recycling facilities and reporting requirements will have to be fulfilled. Main requirements for the vessels destined to be recycled are among others, first and foremost the requirement to carry an inventory of hazardous materials, as these are set out in the list of hazardous materials in the Annex of the Convention<sup>64</sup> and the conclusion of a ship recycling plan<sup>65</sup>. The ship recycling facilities requirements consist mainly of establishing management systems and practices, in order to tackle both the social and the environmental impact of ship breaking<sup>66</sup>. Lastly, the reporting requirements contain the shipowners' obligation to notify the Administration<sup>67</sup>. However, the Hong Kong Convention, unable to fulfill the three conditions<sup>68</sup>, namely the number of States, the tonnage and the recycling capacity, has not entered into force yet. More profoundly, the conditions require that not less than 15 States have either signed the Convention or ratified<sup>69</sup> it, that the combined merchant fleets of the States to represent not less than 40% of the gross tonnage of the world's merchant fleet<sup>70</sup> and finally that the combined maximum annual ship recycling volume of the States to constitute not less than 3% of the gross tonnage of the combined merchant fleet gross tonnage<sup>71</sup>.

### **C. b. European legal framework**

The European Union's role as vital in the shipping industry has already been established and becomes more obvious from its continuous contribution to a formation of a legal regulatory framework concerning environmentally safe and sound ship recycling.

Following the Council's Decision 93/98/EEC<sup>72</sup>, EU has been a party to the Basel Convention and has transposed and incorporated within its set of rules both the Convention and the Basel Ban Amendment by adopting the Regulation (EC) No 1013/2006 on shipments of

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<sup>63</sup> Article 1 §1, Hong Kong Convention, 2009.

<sup>64</sup> The Annex provides a list of hazardous materials the installation or use of which is either restricted or prohibited in shipyards, in repair-shipyards and in ships flying the flag of parties to the Convention.

<sup>65</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 37.

<sup>66</sup> Regulations 15-23 of the Hong Kong Convention, 2009.

<sup>67</sup> Article 2 §2, Hong Kong Convention, 2009 where: '*Administration means the government of the State whose flag the ship is entitled to fly, or under whose authority it is operating*'.

<sup>68</sup> Article 17, Hong Kong Convention, 2009.

<sup>69</sup> The last ratification was from India in 2019, marking the 15<sup>th</sup> state to ratify the Convention alongside with Belgium, Congo, Denmark, Estonia, France, Germany, Ghana, Japan, Malta, Netherlands, Norway, Panama, Serbia and Turkey. See more on IMO official website; <https://www.imo.org/en/MediaCentre/PressBriefings/Pages/31-India-HKC.aspx>

<sup>70</sup> The ratifying States represent just over 30% of the world merchant shipping tonnage. See more on IMO official website; <https://www.imo.org/en/MediaCentre/PressBriefings/Pages/31-India-HKC.aspx>

<sup>71</sup> Lia I. Athanasiou, Maritime Law, Nomiki Bibliothiki S.A., 2020, p.39.

<sup>72</sup> Council Decision of 1 February 1993 on the conclusion on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention). According to article 47 TEU '*The Union shall have legal personality*' and therefore under article 216 TFEU can conclude international agreements, necessary in order to achieve its objectives and which [agreements] are binding upon the Institutions of the Union and on m-s.

waste<sup>73</sup>, the ‘Waste Shipment Regulation’ (hereinafter referred to as ‘WSR’)<sup>74</sup>. The WSR forms a system governing the control of waste shipments and, among others, prohibiting the export of hazardous wastes, such as a vessel destined to be recycled<sup>75</sup>, from EU and OECD states<sup>76</sup> to non-OECD states<sup>77</sup>. In this manner, the Regulation attempts to ensure that developing countries are no longer going to be used as dumping ground to dispose hazardous waste; such disposals from developed countries have tremendous adverse effects in various sectors, such as social and environmental consequences<sup>78</sup>.

However, on November 2013, the European Parliament and the Council adopted a Regulation (EU) 1257/2013 specialized on ship recycling, the ‘Ship Recycling Regulation’ (hereinafter referred to as ‘SRR’)<sup>79</sup>, which came into force in 2019 and partly replaced the WSR<sup>80</sup>. The main purpose of the SRR is to *‘prevent, reduce, minimize and eliminate accidents, injuries and other adverse effects on human health and the environment caused by ship recycling [...] to enhance safety, [...] the protection of the Union marine environment throughout a ship’s life-cycle, in particular to ensure that hazardous waste from such ship recycling is subject to environmentally sound management’*<sup>81</sup>. Moreover, the Regulation aims to facilitate the ratification of the Hong Kong Convention<sup>82</sup> and thus it follows closely its spirit and objectives, though it includes complementary safety and environmental requirements. Therefore, the Regulation, inter alia, sets conditions for both vessels<sup>83</sup> and recycling facilities<sup>84</sup>, so as to ensure that recycling is conducted

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<sup>73</sup> See the complete text of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste at eur-lex official website; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02006R1013-20210111&from=EL>

<sup>74</sup> Rebecca Prentiss Pskowski, No country for Old Ships?: Emerging Liabilities for Ship Recycling Stakeholders, Tulane Maritime Law Journal, vol 45, 2020, p. 71-72.

<sup>75</sup> COM (2008) 767 from the European Commission, ‘A strategy for better ship dismantling practices’ <https://eur-lex.europa.eu/EN/legal-content/summary/a-strategy-for-better-ship-dismantling-practices.html#>

COM (2010) 88 from the European Commission, ‘An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation’.

<sup>76</sup> See more on the OECD countries <https://www.oecd.org/>

<sup>77</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 71.

<sup>78</sup> Melissa Su Thomas in Tony George Puthucherril’ s, From shipbreaking to sustainable ship recycling – Evolution of a legal regime, 21<sup>st</sup> ed., International Community Law Review, vol. 15, 2013, p. 256-257.

<sup>79</sup> See the complete text of Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling, amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC at eur-lex official website; <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02013R1257-20180704&from=EN>

<sup>80</sup> Ibidem footnote 74, p. 72-73.

<sup>81</sup> Article 1 §1, Regulation 1257/2013 on Ship recycling.

<sup>82</sup> Ibidem Article 1 §3.

<sup>83</sup> Ibidem Article 6,7,8,9.

<sup>84</sup> Ibidem Article 13.

in a 'green' manner, restricts or prohibits the use of hazardous materials on ships<sup>85</sup> and establishes a European list of ship recycling facilities<sup>86</sup>.

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<sup>85</sup> Article 4, Regulation 1257/2013 on Ship recycling.

<sup>86</sup> *Ibidem* Article 16.



# **PART 1; A COMPARATIVE ANALYSIS OF SHIPOWNERS' OBLIGATIONS UNDER INTERNATIONAL AND EUROPEAN LAW**

## **A. The non-effective International legal framework for ship - recycling**

### **I. The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal**

#### **I. a. The background of the Basel Convention and the Protocol on liability and compensation**

Transportation of, inter alia, goods around the globe has been the economic, political, environmental or even psychological link and ultimately proved to be the means for internationalization, also referred to as globalization<sup>87</sup>. As a matter of fact, transport has often been characterized as the cornerstone of globalization<sup>88</sup>. Ship recycling is interlinked to globalization as well, by being the particular industry involved with transboundary movement of wastes having adverse social, occupational and environmental effects<sup>89</sup>, which can only be conceived with a reference to the wider idea of internationalization. In particular, with regard to the environmental footprint of globalization, environmental degradation is rather an international concern than a national or even regional problem<sup>90</sup>. Therefore, it is only natural that the solutions to the aforementioned problems be found at an international level<sup>91</sup> following international cooperation<sup>92</sup>.

Severe environmental incidents<sup>93</sup> alerted the international community, alongside with the awareness raised by NGOs, such as Greenpeace and pointed out the need to control the movement of hazardous wastes and particularly to regulate the disposal or/and the attempts of disposal of such toxic wastes from developed countries to developing ones. This practice of disposal to developing countries was distinctively described as 'toxic colonialism or environmental racism'<sup>94</sup>.

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<sup>87</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 2.

<sup>88</sup> Jan Hoffmann, Shashi Kumar, *Globalization – The maritime nexus*, in Costas Grammenos *The Handbook of maritime economics and business*, 2<sup>nd</sup> ed., 2010, p.35.

<sup>89</sup> See more on Tony George Puthucherril, *Trans-Boundary Movement of Hazardous Ships for their last rites: Will the Ship Recycling Convention make a difference?*, 2010, p. 284-288.

<sup>90</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, 2013, p. 4.

<sup>91</sup> *Supra* footnote 51.

<sup>92</sup> Ishtiaque Ahmed, *The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence*, 2020, p.416.

<sup>93</sup> Such as the 'Khian Sea' case, a ship which crossed the ocean in quest to find a port to accept its' toxic cargo and upon a series of port refusals, arrived in Singapore with empty holds. The cargo was claimed to be 'lost', but most probably was dumped in the Indian Ocean. See more on Nina Bombier, *The Basel Convention's complete ban on hazardous waste exports: Negotiating the compatibility of trade and the environment*, *J. Env. L. & Prac*, 1997, p. 2.

<sup>94</sup> Ishtiaque Ahmed, *The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence*, 2020, p.415.

Due to its transnational character, the ship – breaking industry<sup>95</sup> was in need of international response. Therefore, in 1987 under the umbrella of UNEP the Cairo Guidelines and Principles for the Environmentally Sound management of hazardous wastes<sup>96</sup> were adopted, which ultimately developed into the Basel Convention. Despite the fact that the Cairo guidelines had no binding force, their significance lies upon the notion that they marked a new approach of international initiative and that they led to the Basel Convention. In the absence of any other legal document, the Basel Convention is the first and only binding international legal document, yet to be in force, associated with ship – recycling<sup>97</sup>. The Convention is based upon the minimization of the amount and hazard level of produced wastes<sup>98</sup>, the disposal of wastes as close possible to the source of the generation<sup>99</sup> and the environmentally sound management and disposal of hazardous wastes consistent with the protection of human health<sup>100</sup>. Moreover, the Convention sets the obligation to each party to take appropriate legal, administrative and any other measures, in order to prevent and punish any conduct of illegal traffic of hazardous wastes or other wastes, which explicitly is characterized as criminal<sup>101</sup>.

Nonetheless, practice revealed that developed countries taking advantage of the needs of developing countries, could easily avoid the legal framework and under the pretext of recycling, they continued to ship waste materials, mostly in Africa and East Asia<sup>102</sup>. Ultimately, in 1995 the Basel Ban Amendment (hereinafter referred to as ‘Ban Amendment’) was adopted and entered into force in 2019<sup>103</sup>. The Ban Amendment included article 4A to the Basel Convention, prohibiting all kind of transboundary exports of hazardous wastes in whatever shape, whether destined for recycling or mere disposal, from OECD to non – OECD countries.

Furthermore, in 1999 the Protocol on liability and compensation for damage resulting from transboundary movements of hazardous wastes and their disposal (hereinafter referred to as the ‘Protocol’) was adopted, introducing a strict<sup>104</sup>, fault-based<sup>105</sup> liability regime for damage, due to an incident occurring during a transboundary shipment of hazardous wastes and other wastes and their disposal<sup>106</sup>. The main objective deriving from the letter and the spirit of the Protocol is to set a comprehensive liability regime and to provide for adequate and prompt compensation. However,

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<sup>95</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, Trade, Law and Development, 2009, p. 205.

<sup>96</sup> See more on

<https://wedocs.unep.org/bitstream/handle/20.500.11822/29578/ELGP8.pdf?sequence=1&isAllowed=y>

<sup>97</sup> The Basel Convention was adopted in 1989 and entered into force in 1992, upon the deposit of the twentieth instrument of accession, according to article 25 §1 of the Convention.

<sup>98</sup> Article 4 §2 of the Basel Convention.

<sup>99</sup> This notion is based upon the principle that environmental damages should as a priority be rectified at source.

<sup>100</sup> See preamble of the Convention.

<sup>101</sup> Article 4 §3,4 of the Basel Convention.

<sup>102</sup> Ishtiaque Ahmed, *The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence*, 2020, p.417.

<sup>103</sup> See more on

<http://www.basel.int/Implementation/LegalMatters/BanAmendment/Overview/tabid/1484/Default.aspx>

<sup>104</sup> Article 4 of the Protocol.

<sup>105</sup> *Ibidem* article 5.

<sup>106</sup> *Ibidem* articles 1 and 2.

the Protocol is not in force yet, due to the lack of the conditions, as these are set out in article 29 of the Protocol<sup>107</sup>.

In order to contribute towards further improvements in ship recycling, in 2003 IMO adopted the Resolution A.962 (23)<sup>108</sup>, or else referred to as the IMO Guidelines on ship recycling, as these were amended in 2005 by the Resolution A.980 (24)<sup>109</sup>. However, these Guidelines have merely a voluntary character or else they constitute soft law<sup>110</sup> and thus they lack enforcement mechanisms<sup>111</sup>.

### **I. b. EU's competence to conclude the Basel Convention**

Early on in the history of EU, the Court held that the Union constitutes a new unique legal order, having distinct and autonomous institutions and legal instruments, separate from public international law<sup>112</sup>. As such, EU transforms into an international actor, able to negotiate, draft and conclude international agreements *'with one or more third countries or international organizations where the Treaties so provide or where the conclusion of an agreement is necessary in order to achieve, within the framework of the Union's policies, one of the objectives referred to in the Treaties [...]'*<sup>113</sup>. An international agreement concluded by the EU is binding upon both the institutions of the Union and on its m – s<sup>114</sup>. Furthermore, according to the Court these international agreements upon their conclusion and their entry into force constitute an integral part of EU law and have primacy over inconsistent secondary EU legislation<sup>115</sup>. As a result, in the hierarchy of EU legal instruments, international agreements are situated between the primary law of EU, namely the Treaties, and the secondary EU law, whereas such agreements must respect the constitutional values of EU law and cannot affect the allocation of responsibilities and competences, as these are defined in the Treaties and therefore, they cannot affect the autonomy

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<sup>107</sup> The Protocol has been signed by 13 parties and ratified by 12, See more on <http://www.basel.int/Countries/StatusofRatifications/TheProtocol/tabid/1345/Default.aspx>

<sup>108</sup> See more on [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.962\(23\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.962(23).pdf)

<sup>109</sup> See more on [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.980\(24\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.980(24).pdf)

<sup>110</sup> See supra footnote 30.

<sup>111</sup> Lia I. Athanasiou, *Maritime Law*, 2020, p.56.

<sup>112</sup> Case 26/62, *Van Gen en Loos*, 1963, p. 12. Also see more on the autonomy of the EU legal order on Vasileios A. Christianos, Metaxia Kouskouna, Rebecca-Emmanouela Papadopoulou, Manolis Perakis, *The European Union Law through case-law*, 2011, p.1-21.

<sup>113</sup> Article 216 §1 TFEU.

<sup>114</sup> *Ibidem* §2.

<sup>115</sup> Case C-308/06, *Intertanko and others v. Secretary of State*, 2008, par. 42, *Joined Cases C-402/05 P and C-415/05 P, Kadi and Al Barakaat International Foundation v. Council and Commission (Kadi I)*, 2008, par. 307-308. Also in the case C-240/09, the *Slovak Brown Bear case*, 2011, par. 52, the Court held that *'It is, however, for the referring court to interpret, to the fullest extent possible, the procedural rules relating to the conditions to be met in order to bring administrative or judicial proceedings in accordance with the objectives of [...] that convention [...]'*.

of the EU legal order<sup>116</sup>. However, it is crucial to ensure both the autonomy of the EU legal order and at the same time to secure that EU's institutions and members will abide by their international obligations deriving from an international agreement<sup>117</sup>. As already mentioned, upon entry into force, an international agreement concluded by the EU, becomes practically EU law. One of the core elements deriving from that notion is that as such, EU Courts can interpret that agreement and therefore, the need for uniform interpretation and application within the Union is satisfied<sup>118</sup>.

With regard to environmental policy making, initially the European Economic Community (EEC now EU), due to the absence of explicit legal base<sup>119</sup>, faced controversial response on whether it actually had competence to regulate in this field, in respect to the principle of conferral<sup>120</sup>. Nonetheless, the Court interpreting extensively the aforementioned legal lacuna, held that the protection of environment constitutes a crucial Community objective<sup>121</sup> and thus, the Community has implied competence to adopt legal acts and to cooperate at an international level, concluding international agreements for the environmental protection and improvement<sup>122</sup>, following the conditions set out in articles 100 and 235 of the EEC Treaty. The Single European Act<sup>123</sup>, though, introduced explicit powers and competences on environmental policy<sup>124</sup>. Moreover, with the Treaty of Maastricht (1992-3) environmental protection was introduced explicitly as an important Community goal, codifying in this manner previous case law and resolving any ambiguity.

Within the framework of the Single European Act, the Basel Convention was concluded by the Community (now EU) as a mixed agreement<sup>125</sup> on the basis of the title on the Environment, with the predominant purpose<sup>126</sup> to protect the environment from transboundary shipments of hazardous wastes. Besides, the Convention was subject to ratification, acceptance, approval and accession not only by States, but also by political and/or economic integration organizations, such

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<sup>116</sup> Case C-459/03, *Commission v. Ireland*, 2006, par. 123.

<sup>117</sup> Szilard Gaspar-Szilagy, *The 'primacy' and 'direct effect' of EU International Agreements*, *European Public Law Journal*, 201, p. 344.

<sup>118</sup> *Ibidem*, p. 345, 352.

<sup>119</sup> Kati Kulovesi, Marise Cremona, *The evolution of EU competences in the field of external relations and its impact on environmental governance policies*, *Transworld; The transatlantic relationship and the future global governance*, 2013, p. 5.

<sup>120</sup> See more on Vasileios A. Christianos, *Introduction to the European Union Law*, 2010, 2011, p. 29.

<sup>121</sup> Case 240/83, *Procureur de la Republique v. ADBHU*, 1985, par. 13, *'The directive must be seen in the perspective of environmental protection, which is one of the Community's objectives'*.

<sup>122</sup> *Joined cases 3/76, 4/76 and 6/76, Kramer and others*, 1976.

<sup>123</sup> Resolution A.169/86 on the Single European Act of 1986, which came into force in 1987. See more on <https://www.europarl.europa.eu/about-parliament/en/in-the-past/the-parliament-and-the-treaties/single-european-act>

<sup>124</sup> Kati Kulovesi, Marise Cremona, *The evolution of EU competences in the field of external relations and its impact on environmental governance policies*, *Transworld; The transatlantic relationship and the future global governance*, 2013, p. 3.

<sup>125</sup> See more on mixed agreements on Rafael Leal-Arcas, *The European Community and Mixed Agreements*, *European Foreign Affairs Review* 6, 2001, p. 485.

<sup>126</sup> *Opinion 2/00 of the Court on Cartagena Protocol*, I-9750.

as the EU<sup>127</sup>. Therefore, with respect to the principle of subsidiarity<sup>128</sup>, the Community implemented the Basel Convention with its Decision 93/98/EEC<sup>129</sup>, following the adoption of Regulation (EEC) No 259/1993<sup>130</sup>.

### **I. c. The duties imposed on shipowners**

As previously stated, the first and only binding international legal document associated with ship – recycling<sup>131</sup> is the Basel Convention, which deals with transboundary movements of hazardous wastes. Therefore, in order for ships destined to be recycled to fall within the framework of the Convention, they have to be defined as ‘wastes<sup>132</sup>’, namely to be seen as objects which are disposed of or are intended to be disposed of or are required to be disposed of under international law<sup>133</sup>. As a consequence, shipowners fall within the definition of ‘waste generators’, meaning the person whose activity produces hazardous wastes or other wastes or is in possession and control of such wastes<sup>134</sup>. However, any kind of wastes produced by the normal and expected in practice operation of a ship is explicitly excluded from the scope of the Convention<sup>135</sup> and is in fact regulated by other international instruments<sup>136</sup>. Hence, it is evident that for as long as a vessel is seaworthy<sup>137</sup> and thus operational, *prima facie* it does not constitute waste as such. The above being mentioned, one should bear in mind that most commonly vessels destined to be dismantled, do conduct their last voyage on their own, fully operational. Naturally, the question on whether these operational vessels constitute waste, in the meaning of the Convention, arises. The answer

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<sup>127</sup> Articles 22, 23 of the Basel Convention.

<sup>128</sup> Article 5 §3 TEU and Protocol 2. Also see more on the principle of subsidiarity in EU environmental policy on Jonathan Golub, Sovereignty and subsidiarity in EU environmental policy, *Political Studies*, 44(4), 1996, p. 686-703.

<sup>129</sup> Decision 1993/98 – 93/98/EEC; Council Decision of 1 February 1993 on the conclusion of the Basel Convention (original proposal; COM (1990) 362).

<sup>130</sup> Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community, as repealed by Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste (WSR).

<sup>131</sup> Ship – recycling or else ship – breaking (the terms are being used interchangeably) refers to the practice in which ships are being dismantled, in order for their steel hulls and other parts can be salvaged and reused. See more on the definition of the ship – breaking process on Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, Trade, Law and Development, 2009, p. 197.

<sup>132</sup> Article 2 §1 of the Basel Convention.

<sup>133</sup> *Ibidem* article 2 §4, where disposal is defined as operation which do not lead to the possibility or resource, recovery, recycling, reclamation, direct reuse or alternative uses, as such operations are described in Annex IV of the Convention.

<sup>134</sup> *Ibidem* article 2 §18.

<sup>135</sup> *Ibidem* article 1 §4.

<sup>136</sup> Wastes produced by operational vessels, which ultimately result to marine pollution, fall within the scope of the International Convention for the prevention of pollution from ships (MARPOL)

<sup>137</sup> See more on Lia I. Athanasiou, *Maritime Law*, 2020, p.482 and I. K. Rokas, G. D. Theocharidis, *Maritime Law*, 4th ed., 2021, p. 221-223.

to that question was given by the Basel Convention Conference of the Parties in 2005<sup>138</sup>. According to the decision of the Conference, a vessel destined to be recycled may become waste as defined in article 2 of the Basel Convention and at the same time, it may be defined as a ship under other international convention.

What seems to be the critical point, in order for a vessel to be defined as a waste and therefore to fall within the framework of the Basel Convention, is the intention of the shipowner, or else waste generator, to actually dispose of the ship. However, in the absence of such an explicit intention of disposal, that will be scrutinized ad hoc and as such, the shipowner's intention will constitute a matter of proof, based on both objective and subjective criteria, whereas it is of crucial importance the moment of the decision to dispose of the vessel<sup>139</sup>. More specifically, objective criteria, advocating for the existence of such intention to dispose of a vessel, could constitute indicatively the age and the overall condition of the ship. Nonetheless, these conditions could be viewed as mere indications and thus, they cannot lead to safe conclusions. In other words, a relatively new vessel or a well preserved one, could serve no longer its economic purpose and considering the revenues on the one hand and the undertaking risk of the freight market<sup>140</sup> on the other hand, a shipowner could decide to dismantle the vessel, in exchange for the higher steel price of the recycled ship in the ship - breaking industry. And in reverse, a relatively old ship could be restored at any given time and as such to continue her voyages. An indication of the intention to dispose of a vessel could also constitute the objective criterion of the fact that the shipowner has contacted a cash buyer<sup>141</sup>. The first Court ruling stating explicitly that a vessel intended to be disposed of was in fact hazardous waste and that a bill of sale actually proved the subjective criterion of the shipowners' intention to dismantle the ship was the case of the *Sandrien* (2000)<sup>142</sup>. The *Sandrien* was a chemical tanker, almost of 26 years of age, flying the Bolivian flag. An inspection held in Amsterdam revealed that the ship suffered corrosion and therefore, she was unseaworthy. But in the meantime, the shipowners had already decided to ship the vessel to India, in order for her to be scrapped. The aforementioned intention could be easily proved by papers on board. The Dutch authorities detained the vessel on the grounds of being in breach of [the Regulation (EEC) 259/1993 on the supervision and control of shipments of waste within, into and out of the European Community which transposed the Basel Convention into the Community and ultimately] the Basel Convention. The highest administrative Court of the Netherlands ruled that a vessel destined to be scrapped and not properly cleaned of hazardous material, in this case of asbestos, should be regarded as hazardous waste. Furthermore, the Court overruled the shipowners' claim that they no longer intended to scrap the ship and held that the bill of sale constituted a proof of the shipowners' subjective intention to dismantle the vessel, despite the fact

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<sup>138</sup> UNEP, Report on the Conference of the Parties to the Basel Convention on the control of transboundary movement of hazardous wastes and their disposal, UN Doc UNEP/CHW.7/33, VII 26, 2005. See more on <http://www.basel.int/TheConvention/ConferenceoftheParties/ReportsandDecisions/tabid/3303/Default.aspx>

<sup>139</sup> Despoina Farmakidi, *The legal framework (International and European) of shipbreaking; Shipowner's obligations and liability*, 2019, p. 25.

<sup>140</sup> See supra footnote 36.

<sup>141</sup> See supra, Introduction, chapter B. d. Introduction to ship recycling, p.17-19.

<sup>142</sup> Michael Galley, *Shipbreaking; Hazards and Liabilities*, 2014, p. 118-121.

that this particular ship could be objectively repaired and continue her operations<sup>143</sup>. As a consequence, it is evident that for the purposes of the Basel Convention, the shipowners' intention to dispose of the vessel and to treat her as a waste is of essential significance.

Moreover, the Basel Convention categorizes wastes into 'hazardous wastes' and 'other wastes', distinction which leads to different obligation regime for the shipowner<sup>144</sup>. Almost invariably, vessels destined to be dismantled fall within the category of hazardous wastes, as these are defined in Annex I and II of the Convention.

### **I. c. 1. The prohibition of article 4A**

The Ban Amendment<sup>145</sup> introduced to the Basel Convention one of the most vital obligations for the shipowner. According to article 4A of the Convention, all transboundary movements of hazardous wastes, which are destined to be recycled or any other operation listed in Annex IV A, from OECD to non - OECD states are prohibited. As a result, OECD states' shipowners are obliged to choose a facility within the borders of OECD states and only within them, in order to ship their vessel for scrapping. The only exception to the aforementioned obligation is the case where the vessel does not constitute hazardous waste but only waste. However, in practice it is extremely difficult for vessels intended to be disposed of to not fall within the meaning of dangerous and hazardous wastes, as these are set out in Annex I, III and VIII (List A) of the Convention, indicatively asbestos, arsenic, lead and mercury.

The introduction of the prohibition of article 4A to the Basel Convention reflects a profound principle of International environmental law, which is evident in the Basel Convention and as a matter of fact is one of its core targets. Thus, the realization of the principle that environmental damage should, as a matter of priority, be remedied at source, entails the prohibition of movements of hazardous wastes, namely of ships intended to be disposed of, from developed countries to developing ones. Moreover, developed countries by being most commonly the producer of wastes, should also bear the environmental cost of dismantling and recycling such hazardous wastes under strict conditions. Therefore, shipowners who expect the maximum revenue of a vessel's operation, should bear the obligation at the end of the vessel's life, as well, to choose a ship – breaking facility within OECD states and not to ship their hazardous waste to non – OECD states, which have nothing to do with the generation and usage of such dangerous materials in the first place and often are the ones who suffer the environmental pollution<sup>146</sup>. Last but not least, the Convention recognizes at the Preamble that transboundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting environmentally sound management, whereas in line again with environmentally sound and efficient management of such

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<sup>143</sup> Council of State, The Hague, Upperton Ltd. v the Minister of Housing, Spatial Planning and the Environment, LJN number AE4310 Case number 200105168/2, [2002].

<sup>144</sup> Article 1 of the Basel Convention.

<sup>145</sup> See supra footnote 103.

<sup>146</sup> Takako Morita, Not in my backyard (NIMBY) syndrome and the ticking time bomb; Disputes over the dismantling of naval obsolete vessels, *The Georgetown International Law and Environmental Law Review* (The Georgetown Int' L Env'tl. Law Review), vol. 17:723, 2005, p. 727-728.

hazardous wastes, the Convention states that dangerous and hazardous wastes should be disposed of in the State where they were originally generated<sup>147</sup>.

### **I. c. 2. The prior notification and consent procedure**

Under the Basel Convention, the shipowner or else the waste generator is obliged to undergo a prior informed consent procedure. In other words, the shipowner of the vessel, which is intended to be dismantled, has to notify in writing, through the channel of the competent authority of the State of export, the competent authority of not only the State of import, but also all the States concerned of the respective transboundary shipment of the vessel<sup>148</sup>. Moreover, the shipowner is required to conclude a contract with the disposer or else the ship – recycling facility, specifying both the intention to scrap the vessel and the environmentally safe and sound procedure and management of the hazardous material<sup>149</sup>. However, the State of export is under no requirement to actually verify the context of the aforementioned contract concluded between the shipowner and the disposer. It is merely a requirement for the verification of the existence of the contract<sup>150</sup>.

Following the notification, the State of import shall respond to the shipowner in writing, consenting to the shipment of the vessel with or without reservations, denying the permission of the import or requesting further information<sup>151</sup>. Therefore, the transboundary movement of the vessel will be possible only after the writing and unconditional consent of the importing State<sup>152</sup>. Finally, yet importantly, the transboundary movement of the vessel must be covered by insurance, bond or any other guarantee<sup>153</sup>. Hence, the shipowner is obliged to undertake all of the insurance matters of the vessel, which is destined to be recycled.

### **I. d. Objections to the Basel Convention's efficiency on ship – recycling**

While reviewing the efficiency of an international convention and in this particular case the Basel Convention's on ship – recycling, one must bear in mind that using as a starting point the contemporary needs and not the needs of the time where the convention was adopted, can often lead to unsafe and distortive conclusions<sup>154</sup>. Nonetheless, despite the fact that the Basel Convention has been associated with actions against substandard movement of hazardous vessels, destined to be scrapped in developing countries and therefore, has been the basis for improving the practices of dangerous materials' disposal, it has also been criticized for being ineffective in handling the overall framework of ship – recycling.

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<sup>147</sup> See par. 8 and 9 of the Preamble of the Basel Convention.

<sup>148</sup> Article 6 §1 of the Basel Convention.

<sup>149</sup> *Ibidem* §3.

<sup>150</sup> Jonathan Krueger, Prior informed consent and the Basel Convention; the hazards of what isn't known, *Journal of Environment and Development*, vol. 7(2), 1998, footnote 5, p.119

<sup>151</sup> Article 6 §2 of the Basel Convention.

<sup>152</sup> *Ibidem* §5.

<sup>153</sup> *Ibidem* §11.

<sup>154</sup> Lia I. Athanasiou, *Maritime Law*, 2020, p.548.



First of all, the Basel Convention has been criticized for having only remote application to shipbreaking, an industry which constitutes a very distinct sector of business and as such, entails specific instruments that take under consideration the peculiarities of the practice and provide appropriate regulatory tools, in order to ensure the sustainable development of ship recycling. On the contrary, the Convention provides instruments that have indirect application to shipbreaking practices<sup>155</sup>. Before the adoption of the Ban Amendment<sup>156</sup>, there were no specific provisions regulating ship – recycling. Thus, both shipowners and shipbreaking facilities advocated for the opinion that vessels destined to be dismantled, did not fall under the import and export prohibitions of the Basel Convention, on grounds that these ships were actually operational and did not constitute waste in the meaning of the Convention<sup>157</sup>. However, despite the fact that uncertainties concerning the applicability of Basel Convention to vessels destined to be disposed of have been discarded<sup>158</sup>, the Convention has been characterized as a ‘mismatched and inappropriate legal machinery’ to regulate the shipbreaking industry, due to its difficulties in terminology, its incompatibility with maritime trade and the nature of the vessels intended to be disposed of and the difficulties in practice to implement the prohibitions on a recyclable waste of such high value as a vessel<sup>159</sup>.

Moreover, both the challenge to actually identify the exact moment, when the shipowner intends to dispose of the vessel and thus it becomes waste and the challenge to identify which country is to be regarded as the State of export, render the Convention ineffective<sup>160</sup>. The Commission of the European Communities (now EU) in a communication<sup>161</sup> stressed that most recycling countries, with the exception of Turkey, are not willing to use the Basel Convention procedure of prior notification and consent for vessels imported for scrapping, despite the fact that they are intended for metal recycling and that the decision of disposal was taken by the shipowners most commonly weeks or even months before the shipment. On the other hand, an additional challenge concerning the transboundary movement of a vessel destined to be dismantled is in the case where the decision for her disposal is taken while the ship is at sea and as a consequence it is rather difficult to identify the State of export or even to apply any legal framework<sup>162</sup>. Ensuring compliance upon shipowners is not an easy task, as well, since vessels travel and operate around the world, change jurisdictions, register, name and flags, often without even the need for genuine

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<sup>155</sup> Tony George Puthucherril, *Trans-Boundary Movement of Hazardous Ships for their last rites: Will the Ship Recycling Convention make a difference?*, *Maritime Transport and Security*, Ocean Yearbook, vol. 24, 2010, p. 292.

<sup>156</sup> See supra footnote 103.

<sup>157</sup> Rebecca Prentiss Pskowski, *No country for Old Ships?: Emerging Liabilities for Ship Recycling Stakeholders*, *Tulane Maritime Law Journal*, vol 45, 2020, p. 68.

<sup>158</sup> See supra footnote 138.

<sup>159</sup> Ishtiaque Ahmed, *The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence*, 2020, p.412.

<sup>160</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, *Trade, Law and Development*, 2009, p. 214.

<sup>161</sup> COM (2008) 767 final, p. 4.

<sup>162</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, *Trade, Law and Development*, 2009, p. 215.

link between the registry and the ownership<sup>163</sup>. Therefore, shipowners can pick and choose among flags of convenience and registries that suits them the most, in order to avoid the strict international legal framework on ship – recycling.

All in all, the Basel Convention, despite being the only binding international legal document associated with ship – recycling, constituting a strict framework on the transboundary movement of hazardous wastes, especially prohibiting any export of such wastes from OECD to non – OECD states, in practice it fails to fulfill the need for environmental protection of developing countries, which are mainly the ones who suffer not only negative occupational and health adverse effects, but also the degradation of the environment nearby the shipbreaking facilities<sup>164</sup>. It comes with no surprise that the Basel Convention has been characterized as ‘a tiger without teeth’<sup>165</sup>.

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<sup>163</sup> Fredrik Grankel Hemsoe, A European initiative on the subject of ship – recycling; A legal analysis of the proposed EU Ship Recycling Regulation in the light of the international law applicable to the recycling of ships, 2013, p. 18.

<sup>164</sup> See more on the impact of shipbreaking industry in South Asia, having negative adverse effects on a. health and safety of the workers, b. housing and living conditions and c. environmental pollution;

- 1) For Pakistan (Gadani); Maritime Study Forum, Shipbreaking industry of Pakistan; Problems and prospects, Nida Hamid, 2018, p. 13-21.
- 2) For Bangladesh (Chittagong); International Federation for Human Rights, Where do the ‘floating dustbins’ end up? Labour rights in shipbreaking yards in South Asia; The cases of Chittagong (Bangladesh) and Alang (India), 348/2, Antoine Bernard, FIDH, 2002, p. 24-49.
- 3) For India (Alang); Ibidem, p. 66-73.

<sup>165</sup> Ishtiaque Ahmed, The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence, 2020, p.453.

## II. The Hong Kong Convention for the safe and environmentally sound recycling of ships

### II. a. The need for specific international legal document on ship – recycling

The International community realizing the growing concerns about the health and safety conditions and the environmental degradation in the ship - recycling industry, highlighted the necessity of the adoption of an international legally binding instrument, which would take into account the specific elements of marine transportation and of the shipbreaking industry. Therefore, from the joint efforts of IMO, ILO and the Basel Secretariat<sup>166</sup> major problems of the industry were stressed, such as indicatively the non – party shipbreaking facilities, the prohibition of ‘beaching’<sup>167</sup>, the handling of hazardous materials and ultimately in 2009 the Hong Kong International Convention for the safe and environmentally sound recycling of ships (hereinafter referred to as ‘the Hong Kong Convention’) was adopted<sup>168</sup>. The core objective of the Hong Kong Convention was to create a comprehensive legal framework ‘[...] in order to prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by ship recycling, and enhance ship safety, protection of human health and the environment throughout a ship’s operating life.’<sup>169</sup>. It is evident from the spirit and the letter that the Convention envisages a holistic approach from the building of the ship until the end of her life, promoting new technologies towards more environmentally friendly vessels and to more environmentally safe practices of ship – recycling with experienced and well – trained personnel in shipbreaking facilities.

Unable to meet all three criteria<sup>170</sup>, in order for its entry into force, the Hong Kong Convention is yet to be binding and after over a decade since its adoption, it is rather unlikely to enter into force. Effectively, the Convention can only enter into force after its ratification from at least three out of the five major ship – recycling states, namely Bangladesh, Pakistan, China, India and Turkey<sup>171</sup>. A first step to that direction was taken in 2019 when both India<sup>172</sup> and Turkey

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<sup>166</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 29.

<sup>167</sup> See more on the shipbreaking methods on Nii Lantei Kumi-Bruce, Ship recycling in Ghana; An analysis of the implementation of the Hong-Kong Convention 2009, 2021, p. 7-10. More profoundly, there are four shipbreaking methods that are used worldwide and these are; a. drydocking, b. alongside, c. landing and d. beaching. The latter is one of the most commonly used form of ship - recycling, yet a substandard one; the vessel sails full speed towards the beach, where the workers dismantle the ship cutting her piece by piece. See also Martin Stopford, Maritime Economics, 3rd ed., 2009, p. 650-652 and Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 15-16.

<sup>168</sup> See more on the official website of IMO <https://www.imo.org/en/OurWork/Environment/Pages/Ship-Recycling.aspx>

<sup>169</sup> Article 1 §1 of the Hong Kong Convention.

<sup>170</sup> Ibidem article 17.

<sup>171</sup> Henning Jessen, Safe and environmentally sound ship – recycling – Is there a case for liability claims? in Baris Soyer, Andrew Tettenborn, Maritime Liabilities in a global and regional context, 2019, p. 90.

<sup>172</sup> See more on the significance of India’s ratification on <https://www.imo.org/en/MediaCentre/PressBriefings/Pages/31-India-HKC.aspx> . Also on Nanda Gopal K. Reddy, N. Manoharan, Ship Recycling: An important milestone for India, Indian Journal of Science and Technology, vol. 7 (s6), 2014, p. 15-21 and on Melissa Su Thomas in Tony George Puthucherril’s, From shipbreaking to sustainable

ratified the Convention. It is worth mentioning that Greece is not among the ratifying countries either.

## **II. b. The shipowners' obligations**

The Hong Kong Convention 'cradle to grave'<sup>173</sup> structure, which in other words aspires to establish an environmentally safe and sound approach from the building of a ship until the moment that the vessel will be disposed of and dismantled, sets obligations for ships, requirements for shipbreaking facilities and reporting requirements<sup>174</sup>. In this chapter, the research focus is on the obligations imposed on shipowners.

First of all, the Convention adopts a distinct definition of ships<sup>175</sup>, delimiting its scope of application. Thus, in the meaning of the Hong Kong Convention, '*ship means a vessel of any type whatsoever operating or having operated in the marine environment an includes submersibles, floating craft, floating platforms, self - elevating platforms, Floating Storage Units (FSUs) and Floating Production Storage and Offloading Units (FPSOs), including a vessel stripped of equipment or being towed*'. However, the Convention does not apply to ships flying the flag of a non – contracting party, to any warships, naval auxiliary, or other ships owned or operated by a party and used only on government non – commercial service, to ships of less than 500 g/t or to ships operating throughout their life only in national or territorial waters<sup>176</sup>.

Moreover, the Convention adopts a rather wide definition of shipowners<sup>177</sup>. So, according to the Hong Kong Convention '*shipowner means the person or persons or company registered as the owner of the ship or, in the absence of registration, the one owning the ship or any other organization or person, such as the manager or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship*'. The goal with this wider meaning of the shipowner is evidently the better application of the Convention and the disconnection of obligations meant for the ownership per se, because, for example, in practice it is quite easy for a ship to be sold to a paper company and the shipowner never to be found, rendering the Convention inapplicable.

### **II. b. 1. The inventory of hazardous materials**

In order to achieve the gradual substitution of hazardous materials from the vessel's construction and maintenance to demolition, with regard to the ship's seaworthiness, the health

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ship recycling – Evolution of a legal regime, 21st ed., International Community Law Review (Int'l Comm. L. Rev.), vol. 15, 2013, p. 255-256.

<sup>173</sup> Rebecca Prentiss Pskowski, No country for Old Ships?: Emerging Liabilities for Ship Recycling Stakeholders, Tulane Maritime Law Journal, vol 45, 2020, p. 69.

<sup>174</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 35.

<sup>175</sup> Article 2 §7 of the Hong Kong Convention.

<sup>176</sup> Ibidem article 3.

<sup>177</sup> Ibidem Regulation 1§8 of the Annex.

and safety of the workers and environmental footprint of the ship – recycling industry, the Hong Kong Convention imposes preconditions to shipowners. These obligations can also be seen as a tool for safeguarding the ex ante compliance with the Convention's requirements<sup>178</sup>. Hence, the Convention prohibits or restricts the installation or use of hazardous materials listed in Appendix 1, such as indicatively asbestos, ozone-depleting substances and PCBs, on ships flying a party's flag or on ships that operate in ports, shipyards, ship repair yards or offshore terminals of a contracting party, regardless of their flag<sup>179</sup>. The goal is evidently to reduce the use or installation of hazardous materials not only to vessels flying the flag of a party to the Convention, but also to expand the prohibition or restriction to non – contracting parties' vessels.

After the construction of a vessel, the Convention imposes the binding condition to shipowners to establish an inventory of hazardous materials (IHM), in regard to any material that is set out in Appendix 1, such as indicatively (as already mentioned) asbestos, ozone-depleting substances and PCBs, and Appendix 2, such as indicatively cadmium, lead and mercury<sup>180</sup>. This inventory for existing vessels shall be established, as far as practicable, not later than five years after the entry into force of the Convention or in any case before going to recycling<sup>181</sup>. Moreover, the inventory must be maintained and updated throughout the operational life of the ship, in order to include any changes that could possibly contain hazardous materials<sup>182</sup>. The purpose of establishing an inventory of hazardous wastes, keeping it on board and regularly updating it is to collect all the necessary, in the meaning of the Convention, information of hazardous materials and reference where exactly they are located in the structure and equipment of the ship, in order to facilitate the recycling practice and to protect both the workers' health and safety and prevent any negative adverse effects that could harm the surrounding environment<sup>183</sup>.

Furthermore, vessels undergo different surveys<sup>184</sup>, a. initial survey, before the ship is put to operation, b. renewal survey, after a period of time, c. additional survey, requested under certain circumstances and d. final survey, before the recycling of the vessel. The purpose of conducting all these surveys is to ensure compliance with regulation 5 of the Convention<sup>185</sup>. After the successful completion of a survey, the International Certificate on inventory of hazardous materials is issued, either by the Administration or by any person or organization authorized by it<sup>186</sup>.

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<sup>178</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 35.

<sup>179</sup> Regulation 4 Annex 1 of the Hong Kong Convention.

<sup>180</sup> *Ibidem* regulation 5 of Annex 1.

<sup>181</sup> *Ibidem* §2.

<sup>182</sup> *Ibidem* §3.

<sup>183</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 36-37.

<sup>184</sup> Regulation 10 Annex 1 of the Hong Kong Convention.

<sup>185</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 38.

<sup>186</sup> Regulation 11 Annex 1 of the Hong Kong Convention. Also see Appendix 8, Form of the International Certificate on inventory of hazardous materials.

## **II. b. 2. The ship recycling plan**

Following the shipowner's intention and decision to dispose of a vessel, under the Hong Kong Convention, he must take some preparation steps prior to the ship recycling. Hence, the shipowner is obliged to choose only a ship – recycling facility that is in advance authorized, in accordance with the Convention, and fully authorized to undertake and conduct all the ship – recycling endeavor, as defined in the ship recycling plan<sup>187</sup>.

An additional duty imposed by the Convention on the shipowner is the arrangement of the ship – recycling plan<sup>188</sup>. In practice, the shipowner is under the obligation to provide a copy of the inventory of hazardous materials to the ship – recycling facility, alongside with any other information regarding additional hazardous materials on board. Moreover, a clause stating that the shipowner will transfer all of the documents including any information concerning the materials on board and that a ship – recycling plan will be developed, must be incorporated within the contract of the sale of the vessel destined to be recycled<sup>189</sup>.

The purpose of the ship – recycling plan is primarily to make the procedure of the dismantling of the vessel easier and safer. The party responsible to develop the plan is the ship – recycling facility<sup>190</sup>, while the shipowner is obliged to provide access to any relevant data and information, regarding the materials on the structure and equipment of the vessel. The plan must include information on the installation, maintenance, monitoring of safe for entry and safe for hot work conditions<sup>191</sup> and management of the materials<sup>192</sup>. Furthermore, the shipowner shall notify the Administration in writing and in due time of his decision to dispose of the vessel, in order for the preparation for the final survey<sup>193</sup> and the issuance of the respective ready for recycling certificate<sup>194</sup>.

## **II. c. 1. Comparative analysis between the Basel and the Hong Kong Convention**

A comparative analysis between the provisions of the Basel Convention and the Hong Kong Convention is of great importance, in order to conclude to safer results on whether the new legal regime actually takes into account all of the needs of the ship – recycling industry and incorporates them within its provisions, in tandem with the core objectives to achieve both

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<sup>187</sup> Regulation 8 Annex 1 of the Hong Kong Convention.

<sup>188</sup> *Ibidem* regulation 9.

<sup>189</sup> Despoina Farmakidi, *The legal framework (International and European) of shipbreaking; Shipowner's obligations and liability*, 2019, p. 38.

<sup>190</sup> Regulation 9 Annex 1 of the Hong Kong Convention.

<sup>191</sup> *Ibidem* regulation 10 §4 (2).

<sup>192</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 37.

<sup>193</sup> See *supra* footnote 184.

<sup>194</sup> Regulation 24 Annex 1 of the Hong Kong Convention. See also Appendix 9, Form of the International Ready for Recycling Certificate.

sustainable development of this particular industry and at the same time to enforce a comprehensive and safe legal regime, with respect to the human element and the environment.

First off, according to article 11 of the Basel Convention, parties are able to conclude bilateral, multilateral or regional agreements, regarding transboundary movements of hazardous wastes or other wastes, to the extent that they do not derogate from the environmentally sound management of hazardous wastes or other wastes, as required by the Basel Convention and that they do not stipulate provisions, which are less environmentally sound than those provided by the Convention. As such, it is argued that the doctrine of equivalent level of control that the Convention establishes, means that the Hong Kong Convention should not jeopardize the environmentally sound management of hazardous wastes provided in the Basel Convention and further on that, because the Basel Convention actually imposes minimum standards, the former (meaning the Hong Kong Convention) should go beyond these, in order to achieve its core targets<sup>195</sup>.

To begin with, the Hong Kong Convention adopts a cradle to grave approach<sup>196</sup> regulating not only the recycling of the vessel, but as well the construction, maintenance and operation of a ship throughout her lifetime. This approach lacks in the Basel Convention, which only deals with the final part before and during the disposal of hazardous wastes. Moreover, the Hong Kong Convention establishes management systems, procedures and techniques, which do not endanger the safety and health of the workers or the surrounding environment of ship – recycling facilities<sup>197</sup>. Yet again, this is an improvement over the Basel Convention, which provided a separate set of Technical Guidelines<sup>198</sup>. Another improvement over the Basel Convention is the reporting system with the IMO<sup>199</sup>. Thus, a great deal of information for instance on the specifics on shipbreaking facilities or on the number of vessels actually recycled, could facilitate the compliance with the Convention and ultimately improve the shipbreaking industry.

The Hong Kong Convention imposes to the shipowners an obligation to choose a ship – recycling facility, which is in advance authorized, in accordance with the Convention, to conduct the dismantling<sup>200</sup>, whereas under the Basel Convention regime the State of export could, upon the shipowner's intention to dispose of the vessel, decide ad hoc whether a facility was capable to recycle in an environmentally safe and sound manner.

## **II. c. 2. The Hong Kong Convention weak spots and the reasoning behind its adoption failure**

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<sup>195</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, Trade, Law and Development, 2009, p. 220.

<sup>196</sup> See supra footnote 173.

<sup>197</sup> Regulation 17 of Annex 1 of the Hong Kong Convention.

<sup>198</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, Trade, Law and Development, 2009, p. 221-222.

<sup>199</sup> Article 12 of the Hong Kong Convention.

<sup>200</sup> See supra footnote 187.

Despite the fact that in general the Hong Kong Convention has been characterized and introduced to the international communities as a ‘milestone<sup>201</sup>’ for the amelioration of the conditions in ship – recycling industry, a set of various weaknesses can be identified. To begin with, the entry into force criteria may prima facie constitute a reasonable requirement for the implementation of the Convention, but may also be the very essence of the adoption failure<sup>202</sup>. Furthermore, there are some specific blind spots within the Hong Kong Convention, which in their basis raise some doubts in the claim that the Convention aspires to provide some extra protection, in regards with the Basel Convention, to the environmentally safe and sound ship – recycling.

First of all, the Hong Kong Convention excludes from its scope ships that operate only in domestic waters, subject to the sovereignty or jurisdiction of the State, whose flag the ship flies<sup>203</sup>, disregarding the fact that ships conducting domestic voyages could result to environmental degradation as well, when destined to be disposed of. The Convention does not apply to warships, naval auxiliary or government-owned ships as well<sup>204</sup>, despite the fact that these vessels are no less of a threat to the environment<sup>205</sup>. As such, a considerable number of ships are excluded in advance from the scope of the Convention.

Moreover, the Hong Kong Convention may provide for sanctions upon any violation of the requirements<sup>206</sup>. Nonetheless these sanctions do not extend to criminal liability, unlike the Basel Convention the provision of which explicitly consider the illegal traffic of hazardous wastes or other wastes, criminal and imposes criminal penalties upon any breach<sup>207</sup>.

Under the Basel Convention regime, a rather protective provision was introduced according to which any transboundary movement of hazardous wastes from OECD to non – OECD states is prohibited<sup>208</sup>. However, the Hong Kong Convention lacks a similar protective prohibition, which can be seen as a major counter-motive for recycling States to ratify the Convention, simply because they could continue their dismantling practices and negotiate recycling orders from shipowners without even having to accede to the Convention<sup>209</sup>. In addition, the Hong Kong Convention does not provide an independent mechanism for audit regarding the compliance of the Convention provisions with the recycling facilities, which could lead to the practice that recycling states grant the authorization to facilities even if they do not meet the criteria for environmentally safe practices<sup>210</sup>.

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<sup>201</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 41.

<sup>202</sup> *Ibidem*, p. 98.

<sup>203</sup> Article 3 §3 of the Hong Kong Convention.

<sup>204</sup> *Ibidem* §2.

<sup>205</sup> Maytee Gomez Salgueiro, *The hazardous effects of ship scrapping and recycling on workers’ rights and the environment*, 2015, p. 38.

<sup>206</sup> Article 10 of the Hong Kong Convention.

<sup>207</sup> Article 4 §3 and 4 of the Basel Convention.

<sup>208</sup> *Ibidem* article 4A.

<sup>209</sup> Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, *Trade, Law and Development*, 2009, p. 225.

<sup>210</sup> *Ibidem*.



The Hong Kong Convention does not provide any restrictions or any other standards concerning the methods used in order for the recycling of a vessel. Thus, there is no mention whatsoever to the drydocking method, which is a safer environmentally method and no restriction at all to the beaching method<sup>211</sup>, which is considered to be a rather primitive shipbreaking practice with tremendous adverse effects both on human health and safety and on environmental pollution<sup>212</sup>.

Furthermore, the Hong Kong Convention sets minimum standards, any derogation from which is prohibited, while it is allowed for the states to adopt stricter environmental rules. Nonetheless, the Convention does not introduce any provisions in respect with the flag – out procedure. Therefore, in practice shipowners can avoid the Convention and national provisions on export of hazardous wastes, as in our case a ship destined to be recycled, and upon the decision to dismantle the vessel, they sell it to an intermediate or else cash – buyer<sup>213</sup>, most commonly situated in a non – OECD state and in particularly in Dubai or Singapore<sup>214</sup>. Another option for the shipowners is not to disclose their intention to scrap the vessel and disguise the final voyage of the ship as a cargo transportation. The vessel in the latter case does not fall within the meaning of hazardous wastes and the shipowners can in this manner go around the international and national legal framework of the ship – recycling regulations.

Last but not least, questions on the adoption and incorporation of basic international environmental principles within the spirit and the letter of provisions of Hong Kong Convention in comparison with the Basel Convention regime, can be raised as well. The Hong Kong Convention aspires to enforce a balance between the right of sustainable development and environmental protection, incorporating one of the fundamental international environmental principles; the principle of sustainable development<sup>215</sup>. Thus, the Convention recognizes that an overall prohibition of exports of ships destined to be disposed of would have been an obstacle to the right of development of the ship - recycling states and as a result, a counter-motive for them to

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<sup>211</sup>See supra footnote 167. Also see Yue Zhao, Yen-Chiang Chang, A comparison of Ship-Recycling Legislation between Chinese Law and the 2009 Hong Kong Convention, 21st ed., Ocean Development and International Law, vol. 45, 2014, p. 53 where; *[...] The most common practice for ship – recycling is to beach a vessel when tides are high, and have unskilled workers dismantle it without systematic occupational training and adequate protective equipment using oxyacetylene torches and sometimes even their bare hands. The pieces of steel are carried by other workers on their heads or shoulders and loaded onto vehicles for transportation*’.

<sup>212</sup> Nele Matz-Luck, Safe and Sound Scrapping of ‘Rusty Buckets’? The 2009 Hong Kong Ship Recycling Convention, Review of European, Comparative and International Environmental Law, vol. 19 (1), 2010, p. 100.

<sup>213</sup> Tony George Puthucherril, Trans-Boundary Movement of Hazardous Ships for their last rites: Will the Ship Recycling Convention make a difference?, Maritime Transport and Security, Ocean Yearbook, vol. 24, 2010, p. 319.

<sup>214</sup> Henning Jessen, Safe and environmentally sound ship – recycling – Is there a case for liability claims? in Baris Soyer, Andrew Tettenborn, Maritime Liabilities in a global and regional context, 2019, p. 91.

<sup>215</sup> See more on sustainable development on Lavanya Ramajani, Jacqueline Peel, The Oxford handbook of International environmental law, Oxford University Press, 2nd ed., 2021, p. 300, where; *[...] International law, much like law in general, first organizes the legal aspects of the transaction (e.g. through sovereign prerogatives, investment law, trade law, etc.) and only then places an additional layer of regulation dealing with the negative environmental externalities*’. Also see the India – Solar Cells case; India – Certain measures relating to solar cells and solar modules (Appellate Body Report) (16 September 2016) WTO Doc WT/DS456/AB/R [https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds456\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds456_e.htm)

ratify the Convention<sup>216</sup>. Furthermore, the Hong Kong Convention failed to introduce and incorporate within its provisions one of the most fundamental principles of international environmental law, the polluter pays principle<sup>217</sup>. Despite the fact that this principle, according to which the person who is responsible for causing pollution is, as well, under the obligation to bear both the responsibility to remove the pollution and to bear the financial costs of the removal, is of major importance, the Hong Kong Convention seems to completely disregard its value on the environmental footprint that the ship - recycling industry leaves behind and limits ex ante the shipowners' responsibilities. Thus, no obligations to flag states or to shipowners have been allocated by the Convention to remove any hazardous materials from the vessel and to conduct any kind of clean – up operation of the ship prior to the dismantling<sup>218</sup>. The failure to adopt the polluter pays principle combined with the lack of provisions prohibiting hazardous practices for the scrapping of the vessels, such as the beaching method, raises serious doubts on whether the Hong Kong Convention took under serious consideration the environmental protection of shipbreaking states and the environmental impact that the ship – recycling practices have<sup>219</sup>. However, there is a serious argument to the aforementioned dispute claiming that, despite the fact that the polluter pays principle has not been as such and explicitly included to the Hong Kong Convention, nonetheless practically it is incorporated within the final price of the vessel purchase, since vessels destined to be dismantled under the Hong Kong Convention are to be sold to facilities which are in advance authorized by the Convention and are fit to recycle in a green manner.

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<sup>216</sup> Saurabh Bhattacharjee, From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back, Trade, Law and Development, 2009, p. 226-227.

<sup>217</sup> See more on the polluter pays principle on Philippe Sands, Principles of International Environmental Law, Cambridge University Press, 4th ed., 2018, p. 240-242 where; '[...] *The polluter pays principle dictates that the costs of pollution should be borne by the person responsible for causing the pollution. The meaning of the principle, and its application in particular cases and situations, remains open to interpretation, particularly in relation to the nature and extent of the costs included and the circumstances in which the principle will, perhaps exceptionally, not apply*'.

<sup>218</sup> Ibidem footnote 216, p. 227.

<sup>219</sup> Amruth Anand, A critical analysis of Recycling of Ships Act 2019 and the implications of the same on Ship Recycling in India, Supremo Amicus, vol. 23, 2021, p. 575.

## B. The implementation of EU initiatives for ship – recycling

It has gradually been within the Union's objectives and in particular within the Commission's targets to take under serious consideration the connection between both the continuous competitiveness of EU shipping industry worldwide and the high standards on sustainability, health and safety<sup>220</sup>. Thus, the EU could not possibly disregard the needs of the shipbreaking industry as well, neither overlook the necessity for regulation, in order to prevent further environmental degradation on the one hand and occupational, health and safety issues on the other hand. In 2008 the European Parliament (EP) on a Report on the Green Paper on better ship dismantling<sup>221</sup> highlighted the fact that *'it is ethically unacceptable to permit the humanly degrading and environmentally destructive conditions involved in the dismantling of ships to continue any longer, thereby accepting that the health of thousands of employees in the Far East is put at risk'* and recognized that the EU is *'partly responsible for the existing social and environmental problems in the field of ship dismantling'*. Therefore, the EU decided to take action, in co-operation with the IMO, to put a stop to *'the practice of social and environmental dumping that stems from economic incentives and to reach a globally sustainable solution'*.

The above being said, the EU has actively participated on the ship – recycling industry by regulating it. Thus, in 1993 the Union ratified<sup>222</sup> as an organization<sup>223</sup> the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal and within this framework adopted Regulation 259/1993<sup>224</sup> codifying the Basel Convention and the Ban Amendment, which later on and in particular in 2006 was repealed by Regulation 1013/2006 on shipments of waste (WSR), explicitly regulating ship dismantling<sup>225</sup>.

However, the aforementioned WSR, despite the fact that it was meant to be applicable to vessels destined to be disposed of, failed to regulate effectively ship – recycling in practice. Therefore, the EU in 2013 adopted Regulation 1257/2013 on ship – recycling (SRR)<sup>226</sup>, which came into force in 2018 and codified the Hong Kong Convention, which was not open for ratification by international organizations, such as the EU. Major objective of the SRR is to *'[...] facilitate early ratification of the Hong Kong Convention, both within the Union and in third countries by applying proportionate controls to ships and ship - recycling facilities on the basis of*

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<sup>220</sup> LEMONIA TSAROUCHA, Future challenges for the EU Maritime Safety Regime, chapter 3; Environmental Sustainability for Maritime Safety and Security; Legal implications to ships, cargo and the human element, 9<sup>th</sup> International Conference of Maritime Law, p. 25.

<sup>221</sup> Report – A6-0156/2008 of the European Parliament, Report on the Green Paper on better ship dismantling [https://www.europarl.europa.eu/doceo/document/A-6-2008-0156\\_EN.html](https://www.europarl.europa.eu/doceo/document/A-6-2008-0156_EN.html)

<sup>222</sup> Council Decision 93/98/EEC of 1 February 1993 on the conclusion on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention).

<sup>223</sup> See supra footnotes 127 and 129.

<sup>224</sup> Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community.

<sup>225</sup> Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32006R1013>

<sup>226</sup> Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02013R1257-20180704>

*that Convention*<sup>227</sup>. The WSR ultimately was partly replaced by the SRR; provided that a vessel falls within the framework of the SRR, it is excluded from the WSR. As a result, ships flying a European flag are regulated by the SRR and only vessels flying a third – country’s flag will fall within the WSR meaning, provided that they begin their final voyage to a scrapyard from a European port.

## **I. The 1013/2006 Regulation on waste shipment transposing the Basel Convention**

### **I. a. The outline of the Waste Shipment Regulation**

The general key objectives of the European initiatives on ship – recycling 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’*, to avoid the export of hazardous wastes, in that case of ships destined to be disposed of from the EU to developing countries and to reduce *‘significantly and in a sustainable way the negative impacts of shipbreaking, especially in South Asia, on human health and the environment, without creating unnecessary economic burdens’*<sup>228</sup>.

However, in order for the Union to adopt any regulatory measures concerning ship – recycling, the power to do so must, in respect with the principle of conferral, be conferred on from member – states to the Union. In other words, the Union shall have the competence to regulate in this certain field, only after the member – states have allowed the Union to do so. Furthermore, when it comes to shared competences, as these are defined in the primary law, thus in the Treaties of the Union, yet again the powers to regulate must be conferred on to the Union, which is then permitted to adopt regulatory measures, with respect to the principle of subsidiarity and proportionality<sup>229</sup>. Therefore, the legal basis for the Union to adopt measures on ship – recycling with the special consideration for the Basel Convention, falls within the Union’s shared competences<sup>230</sup>, namely falls under the aim to protect the environment<sup>231</sup>.

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<sup>227</sup> Preamble, preambular clause number 5 of the Regulation 1257/2013 (SRR). Also see Article 1 §3 of the amended SRR (2018) where; *‘This Regulation also aims to facilitate the ratification of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (‘the Hong Kong Convention’)*’.

<sup>228</sup> COM (2008), 767 final, from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An EU strategy for better ship dismantling, par. 4.

<sup>229</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 157.

<sup>230</sup> Article 2 §2 TFEU *‘When the Treaties confer on the Union a competence shared with the Member States in a specific area, the Union and the Member States may legislate and adopt legally binding acts in that area. The Member States shall exercise their competence to the extent that the Union has not exercised its competence. The Member States shall again exercise their competence to the extent that the Union has decided to cease exercising its competence’*.

<sup>231</sup> C-411/2006, Commission of the European Communities v. European Parliament and Council of the European Union, 2009, par. 45 *‘It should be remembered, as a preliminary point, that, according to the Court’s settled case-law, the choice of legal basis for a Community measure must rest on objective factors which are amenable to judicial review, including in particular the aim and the content of the measure (see Case C-178/03 Commission v Parliament and Council, paragraph 41, and Case C-155/07 Parliament v Council [2008] ECR I-0000, paragraph*

As previously stated, by virtue of Council Decision 93/98/EEC, the EU (then the European Economic Community) has been a contracting member to the Basel Convention and to the Ban Amendment and transposed the Convention within the Union adopting the WSR.

First off, one of the most fundamental provisions that was introduced to the Basel Convention with the Ban Amendment, has also been established with the WSR, regulating the control and supervision of movements of wastes within member – states, states belonging to the European Free Trade Association (EFTA), OECD states and other states, which are parties to the Basel Convention<sup>232</sup>. Thus, the WSR introduces the prohibition regime of article 4A of the Basel Convention and imposes the obligation to shipowners not to export any hazardous wastes, in this case vessels destined to be dismantled, from member - states of the EU to non – OECD states<sup>233</sup>. It goes without saying that the Regulation explicitly states that ships are not exempted by its provisions upon the intention of the shipowner to dispose of the vessel, a fact which goes under scrutiny ad hoc, meaning on a case – to - case basis<sup>234</sup>.

Moreover, the WSR establishes a similar to the Basel Convention regime of obligations imposed to shipowners. Hence, any transboundary movement of wastes that are destined for recovery, are subject to the prior written notification and consent procedure<sup>235</sup>. As such, shipowners are under the obligation, prior to the ship – recycling procedure, to disclose their intention to dismantle the vessel and to notify the competent authority of the export state. The notification procedure shall follow the standardized documents of notification and movement, as these are defined in the Annexes IA and IB of the Regulation<sup>236</sup>. The notification and movement documents must be accompanied by the contract that the shipowner has already concluded with the shipbreaking facility for the recovery or disposal of the notified waste or else of the notified

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34)' and par. 48 *'In the present case, it is not disputed that the contested regulation pursues the objective of protection of the environment and that, consequently, it was, at least in part, validly founded on Article 175(1) EC. The dispute relates solely to the question whether that regulation also pursues a common commercial policy objective and has components falling within that policy which are indissociably linked to environmental protection-related components of such importance that the act ought to have had a dual legal basis, namely Articles 133 EC and 175(1) EC.'*

<sup>232</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 171.

<sup>233</sup> Article 36 of the Regulation 1013/2006 (WSR).

<sup>234</sup> C-188/2007, *Commune de Mesquer v. Total France SA and Total International Ltd.*, 2008, where the Court held that there are some certain criteria to be fulfilled, in order for a disposal and the intention to dispose of a waste to materialize, thus in par. 40; *'That concept can cover all objects and substances discarded by their owner, even if they have a commercial value and are collected on a commercial basis for recycling, reclamation or reuse (see, in particular, Case C-9/00 Palin Granit and Vehmassalon kansanterveystyön kuntayhtymän hallitus [2002] ECR I-3533, paragraph 29 and the case-law cited)'* and par. 41; *'In this respect, certain circumstances may constitute evidence that a substance or object has been discarded or of an intention or requirement to discard it'*.

Also see C-422/1992, *Commission of the European Communities v. Federal Republic of Germany*, 1995, par. 22, where; *'[...] the concept of waste is not to be understood as excluding substances and objects which are capable of economic reutilization. National legislation which defines waste as excluding substances and objects which are capable of economic reutilization is not therefore compatible with those directives (see the judgment in Case C-359/88 Zanetti and Others [1990] ECR I-1509, paragraphs 12 and 13'*.

<sup>235</sup> Articles 3 §1 and 4 of the Regulation 1013/2006 (WSR).

<sup>236</sup> See Appendix 10, Notification document for transboundary movements/shipments of waste and Appendix 11, Movement document for transboundary movements/shipments of EU waste.

vessel destined to be recycled<sup>237</sup>. In order for the ship – recycling procedure to commence, the shipowner is obliged to wait for the competent authority to disclose in writing the consent<sup>238</sup> for transport, recovery or disposal of the vessel<sup>239</sup>.

### **I. b. The Waste Shipment Regulation ineffectiveness to regulate ship – recycling**

Although initially the WSR was destined to be applicable to vessels intended to be disposed of, ultimately it was proven to be an ineffective legal instrument to properly regulate ship – recycling. Case law has also shown that shipowners in practice choose shipbreaking facilities outside EU and OECD states and in particular they prefer South Asian shipyards, in order to recycle their vessels<sup>240</sup>. Shipowners in reality avoid the regulatory framework of the WSR, mainly due to economic, administrative and bureaucratic incentives and therefore, they fall quite at ease outside the scope of the Regulation<sup>241</sup>.

It is evident that the main objective of the WSR has failed to be fulfilled. The key element of the prohibition of exports of hazardous wastes from the EU to developing countries, which aspired to protect the latter from becoming dumping grounds for hazardous wastes with tremendous adverse effects both on human health, safety and occupational hazards and environmental pollution, due to the practices mainly used in shipbreaking facilities in developing countries, such as Pakistan, Bangladesh and India<sup>242</sup>, has been breached several times.

One of the most fundamental reasons for the inefficiency of the Regulation is rather a pragmatic one. It all starts from the definition of wastes, as defined in the Regulation<sup>243</sup>, the root of which can be found in the intention of the holder of such wastes to dispose of them. However, when it comes to vessels, which operate worldwide and can sail at any given time, it is not easy to establish or to prove the existence of such an intention, basically due to the fact that a ship can still be seaworthy, able to operate and nonetheless a shipowner balancing with economic criteria could decide to dismantle it. And in reverse, a vessel can be unseaworthy and prima facie could fall within the meaning of a hazardous waste, but the owner could decide to restore any damage and continue to trade on the vessel. In a nutshell, if a shipowner does not disclose his intention to dismantle his vessel, while on European waters, the WSR cannot be applied<sup>244</sup>.

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<sup>237</sup> Articles 4 §4 and 5 of the Regulation 1013/2006 (WSR).

<sup>238</sup> Philip Raworth, Chapter 38. Environmental Regulation in the European Union § 7 Waste management, European Union Law Guide, 2021.

<sup>239</sup> Article 9 of the Regulation 1013/2006 (WSR).

<sup>240</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 172. See also more on the Clemenceau case in Meduri Aparna, Clemenceau Case - a Tug between Environment, Health and Employment, 2006, p.1-3.

<sup>241</sup> Ibidem p. 174.

<sup>242</sup> See supra footnote 164.

<sup>243</sup> Article 2 of the Regulation 1013/2006 (WSR).

<sup>244</sup> C-458/00, Commission of the European Communities v. Grand Duchy of Luxemburg, 2003, par. 22-26. In this case the Court held that competent authorities could not reclassify ex officio the purpose of the movement of waste, included in a consignment note, but they had to follow the objections procedure, as defined in the Regulation. The case also led to a clarification related to incineration; combustion of household waste could be classified as a

## II. The 1257/2013 Regulation on ship recycling transposing the Hong Kong Convention

### II. a. Competence, legal base and objectives of the Ship Recycling Regulation

The inadequacy of previous legal instruments to properly and effectively regulate the shipbreaking industry, providing a comprehensive legal regime that could take into account the peculiarities of this distinctive sector of business and the need for sustainable development on the one hand and at the same time on the other hand to tackle the complications that ship dismantling had upon the environment, has been in the epicenter of the EU's efforts. Hence, in order for the Union to contribute to environmentally safe and sound ship – recycling, decided to adopt further regulatory measures specifically in the area of shipbreaking.

The preliminary step is to answer to the reasonable question that pops first and consists of whether the Union has actually the competence to regulate in this specific area, in respect with the fundamental EU's principles of conferral, subsidiarity and proportionality<sup>245</sup>. In the area of the environmental preservation, protection and improvement, the Union has shared competence to regulate<sup>246</sup>. Therefore, to the extent that the objective can be better achieved at an EU level and does not go beyond the necessary degree, the Union can adopt legal acts in an effort to ensure human safety and health and to prevent environmental degradation. The legal basis for the Union to act upon this, can be found to the predominant objective, aim and content of the measure to be adopted<sup>247</sup>.

Accordingly, in 2013 the EU adopted Regulation 1257/2013 of the European Parliament and of the Council on ship recycling (SRR) and amending Regulation 1013/2006 and Directive

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recovery operation if the main purpose was to enable the waste to be used as a means of generating energy and if the combustion is efficient. In the case where heat generated by the combustion was only a secondary effect of the operation, that operation had to be classified as a disposal operation. See also C-472/02, *Siomab SA v. Institut Bruxellois pour la gestion de l' environnement*, 2004, par. 33-35. This case concerns a reference for a preliminary ruling from the Cour d' appel de Bruxelles (Belgium) and the judgement relates to a case brought by the Commission against Siomab; a Belgian company, which was shipping salt residues to a German mine exploitation company, stating this shipment as for recovery. Nonetheless, the Belgian competent authority of dispatch classified it as a shipment for permanent storage, and therefore a disposal. The Court held that the competent authority of dispatch was not entitled to reclassify the purpose of a movement and refuse to transmit the original consignment note to the other authorities and the consignee, whereas the competent authority of dispatch had to follow the procedure as laid out in the Regulation for raising an objection.

<sup>245</sup> See supra footnotes 229-231.

<sup>246</sup> Articles 3 §3 TEU, 2 §2, 4 §2(e), 11, 191 TFEU.

<sup>247</sup> C-155/07, *European Parliament v. Council of the European Union*, 2008, par. 34 '*According to settled case-law, the choice of the legal basis for a Community measure must rest on objective factors amenable to judicial review, which include the aim and content of that measure*'. See also C-178/03, *Commission of the European Communities v. European Parliament and Council of the European Union*, 2006, par. 41 '*In that connection, it must be borne in mind that, according to settled case-law, the choice of the legal basis for a Community measure must be based on objective factors which are amenable to judicial review and include in particular the aim and content of the measure (see Case 45/86 Commission v Council [1987] ECR I493, paragraph 11; Case C-300/89 Commission v Council (Titanium Dioxide) [1991] ECR I-2867, paragraph 10; Case C-268/94 Portugal v Council [1996] ECR I-6177, paragraph 22; and Case C-176/03 Commission v Council [2005] ECR I-0000, paragraph 45)*'.

2009/16<sup>248</sup>, in accordance with the ordinary legislative procedure<sup>249</sup>. The legal basis for the aforementioned adopted legal act can be found in the primary law of the EU and in particular in article 191 par. 1 (ex – Article 174 TEC)<sup>250</sup> and 192 par. 1 TFEU (ex – Article 175 TEC)<sup>251</sup>. Ultimately, the Regulation entered into force in December 2013, powered with binding force in its entirety and direct applicability in all member - states<sup>252</sup>.

The Regulation has successfully introduced within its provisions, rudimentary principles of EU law; thus, the principle of equality and the polluter pays principle<sup>253</sup>. Furthermore, the purpose of the existence of the Regulation is to *'prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment, caused by ship - recycling. The purpose of this Regulation is to enhance safety, the protection of human health and of the Union marine environment throughout a ship's life-cycle, in particular to ensure that hazardous waste from such ship - recycling is subject to environmentally sound management. This Regulation also lays down rules to ensure the proper management of hazardous materials on ships.'*<sup>254</sup>. Due to the fact that the Hong Kong Convention was not open for ratification by international organizations, such as the EU, the Union had left with no other choice but to adopt a legal instrument, in that case a Regulation, in order to transpose the Convention's provisions within the EU legal order. Hence, it is within the core targets of the SRR to *'facilitate the ratification of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 ('the Hong Kong Convention')*<sup>255</sup>.

## **II. b. Requirements for shipowners under the Ship Recycling Regulation**

It is extremely crucial, as a starting point, to bare in mind that every term used within the Regulation has its own unique and distinctive meaning and interpretation than those used in any

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<sup>248</sup> Regulation (EU) No 1257/2013 of the European Parliament and of the Council of 20 November 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC Text with EEA relevance <https://eur-lex.europa.eu/eli/reg/2013/1257/oj>

<sup>249</sup> Position of the European Parliament of 22 October 2013 (not yet published in the Official Journal) and decision of the Council of 15 November 2013.

<sup>250</sup> Article 191 §1 TFEU *'Union policy on the environment shall contribute to pursuit of the following objectives:*  
*- preserving, protecting and improving the quality of the environment,*  
*- protecting human health,*  
*- prudent and rational utilization of natural resources,*  
*- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change'.*

<sup>251</sup> Article 192 §1 TFEU *'The European Parliament and the Council, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee and the Committee of the Regions, shall decide what action is to be taken by the Union, in order to achieve the objectives referred to in Article 191'.*

<sup>252</sup> Article 32 §4 of the Regulation 1257/2013 (SRR).

<sup>253</sup> Recitals 8 and 19 of the Preamble of the Regulation 1257/2013 (SRR). Also see more on the polluter pays principle on Philippe Sands, Principles of International Environmental Law, Cambridge University Press, 4th ed., 2018, p. 242-244.

<sup>254</sup> Article 1 §1, 2 of the Regulation 1257/2013 (SRR).

<sup>255</sup> Recital 5 and article 1 §3 of the Regulation 1257/2013 (SRR).



other legal document, whether that is international, national or European one<sup>256</sup>. As such, within the meaning of the SRR, a shipowner is any *'natural or legal person registered as the owner of the ship, including the natural or legal person owning the ship for a limited period, pending its sale or handover to a ship - recycling facility, or, in the absence of registration, the natural or legal person owning the ship or any other organization or person, such as the manager or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship, and the legal person operating a state-owned ship.'*<sup>257</sup>. It is evident that the Regulation adopts a wide definition of a shipowner, including the cash – buyer<sup>258</sup>, in order to cover every aspect of the ownership of a vessel and the obligations and responsibilities that come with it.

### **II. b. 1. The inventory of hazardous materials**

The Hong Kong Convention holistic approach, concerning the control of hazardous materials, both their installation and their use, that follows the vessels from their building, maintenance and ultimately the recycling, is adopted with the SRR, as well. Hence, the Regulation introduces the prohibition of installation and use of hazardous materials<sup>259</sup>, as these are defined in Annex I, such as indicatively asbestos, ozone-depleting substances, PCBs and PFOS.

Moreover, under the Regulation, shipowners are obliged to establish, maintain and update throughout the operational life of a vessel<sup>260</sup> an inventory of hazardous materials, as these are defined in Annex II, for example cadmium, lead and mercury, defining the existence and the exact location of such materials on board. According to article 5 of the Regulation *'Each new ship shall have on board an inventory of hazardous materials [...] contained in the structure or equipment of the ship, their location and approximate quantities.'* Under article 5 par. 2 of the Regulation *'existing ships shall comply, as far as practicable'* with the requirements of paragraph 1 and in the case that these vessels are destined to be recycled they *'shall comply, as far as practicable'* with paragraph 1 of this Article. The inventory of hazardous materials shall (a) be specific to each ship, (b) provide evidence that the ship complies with the prohibition or restrictions on installing or using hazardous materials in accordance with Article 4, (c) be compiled taking into account the relevant IMO guidelines and (d) be verified either by the administration or a recognized organization authorized by it.

### **II. b. 2. The ship – recycling plan**

When a vessel is destined to be disposed of, a set of general requirements imposed to shipowners must be fulfilled. Therefore, a shipowner is obliged to contact the operator of the ship - recycling facility and provide him with all the information that are necessary for the development

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<sup>256</sup> Vincent Power, EU Shipping Law, 3rd ed., vol. 1, 2019, p. 1203.

<sup>257</sup> Article 3 §1(14) of the Regulation 1257/2013 (SRR).

<sup>258</sup> See supra footnote 141.

<sup>259</sup> Article 4 of the Regulation 1257/2013 (SRR).

<sup>260</sup> Vincent Power, EU Shipping Law, 3rd ed., vol. 1, 2019, p. 1209.

of the ship - recycling plan<sup>261</sup>. As a matter of fact, the shipowner is under the requirement to disclose in writing to the shipbreaking facility his intention to recycle his vessel. Moreover, he shall notify in writing the competent administrative authority, within a timeframe to be determined by that administration, of the intention to recycle the vessel in a specified ship - recycling facility or facilities. The written notification shall include at least the inventory of hazardous materials and all the necessary information for the recycling of the vessel<sup>262</sup>.

It goes without saying that the ship - recycling plan must be developed before the recycling of a ship takes place. The Regulation takes into account the fact that the actual technical know-how of the specific shipbreaking practices, falls within the area of expertise of the operator of the ship – recycling facility, who is responsible and under the obligation to develop, in accordance with the relevant provisions of the Hong Kong Convention and the relevant IMO guidelines, the ship – recycling plan. Furthermore, the operator of the facility must clarify whether and to what extent any preparatory work prior to the recycling, such as pre-treatment, identification of potential hazards and removal of stores, is to take place at a location other than the ship - recycling facility<sup>263</sup>. In a nutshell, the Regulation adopts a precautionary approach according to which the ship – recycling practice must follow certain and strict procedural rules, in order to avoid any health, safety or environmental hazard that can result from the endeavor. On the other hand, the shipowner shall provide to the facility any relevant to the recycling information, in consistency with the information contained in the inventory of hazardous materials. Ultimately, the ship - recycling plan shall be tacitly or explicitly approved by the competent authority prior to the ship – recycling. It is worth mentioning at this point that the tacit approval by the competent national authority was introduced with the Regulation, while such a discretion was not possible under the Hong Kong Convention.

### **II. b. 3. The European List of ship – recycling facilities**

One of the core obligations imposed to shipowners under the Regulation is that they '*shall ensure that ships destined to be recycled, are only recycled at ship - recycling facilities that are included in the European List*<sup>264</sup>'. Hence, the Regulation entails that shipowners will act within due diligence, in order to ensure that their vessels will be dismantled in environmentally safe and sound premises, which operate under strict rules and are included in the European list of ship – recycling facilities.

More specifically, vessels that fly an EU member – state's flag can only be recycled at a ship – recycling facility included in the European list. These facilities are required to apply to the European Commission (EC) for a sine qua non inclusion on the European list of ship – recycling facilities and are under the obligation to meet certain construction and operation conditions<sup>265</sup>.

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<sup>261</sup> Article 6 §1(a) of the Regulation 1257/2013 (SRR).

<sup>262</sup> Ibidem clause (b).

<sup>263</sup> Ibidem article 7.

<sup>264</sup> Ibidem article 6 §2.

<sup>265</sup> The Marine Professionals (MARPROF Environmental Ltd), Report on the European List of ship – recycling facilities, 2020, p. 6.

However, ship – recycling facilities that are located outside the EU can also apply for inclusion on the European list, the procedure and conditions of which were published by the EC (now EU) in a Technical Guidance Note<sup>266</sup>. Therefore, the European list, provided that all the necessary criteria are met, can include shipbreaking facilities that are located outside the EU<sup>267</sup>, such as UK, USA and Turkey<sup>268</sup>.

#### II. b. 4. Surveys and certificates

The Regulation provides that vessels, from the moment that they will commence their service, throughout their operational life and ultimately prior to the dismantling, *'shall be subject to initial, renewal, additional and final surveys [...]*<sup>269</sup>. Particularly, in respect with the final survey, this must provide the verification that the inventory of hazardous materials is in good stand and fully complies with the requirements, as these are defined in the Regulation, that the ship - recycling plan is in consistency with the information that the aforementioned inventory of hazardous materials contains and lastly that the ship - recycling facility, where the vessel is destined to be recycled is included in the European List. In the case of existing ships intended to be recycled, the initial and the final survey can be conducted at the same time.

After the completion of an initial or renewal survey, the administration issues an inventory certificate, whereas in the case that the initial and the final survey are conducted at the same time, only the ready for recycling certificate must be issued. In any event and following the completion of a final survey, the administration issues a ready for recycling certificate, which shall accompany the inventory of hazardous materials and the ship recycling plan, all of which are necessary documents, in order for the dismantling of a vessel to take place<sup>270</sup>.

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<sup>266</sup> COM (2016) 2016/C 128/01, Communication from the Commission — Requirements and procedure for inclusion of facilities located in third countries in the European List of ship recycling facilities — Technical guidance note under Regulation (EU) No 1257/2013 on ship recycling <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2016:128:FULL&from=SV>

<sup>267</sup> Article 13 of the Regulation 1257/2013 (SRR), *'[...] designed, constructed and operated in a safe and environmentally sound manner, establishes management and monitoring systems, procedures and techniques which have the purpose of preventing, reducing, minimizing and, to the extent practicable, eliminating health risks to the workers and adverse effects on the environment, prepares a ship recycling facility plan, ensures safe and environmentally sound management and storage of hazardous materials and waste, establishes and maintain an emergency preparedness and response plan, provides for worker safety and training, including ensuring the use of personal protective equipment for operations requiring such use, establishes records on incidents, accidents, occupational diseases and chronic effects[...]*'.

<sup>268</sup> See more on the list of ship – recycling facilities located both in EU and outside EU on Commission implementing Decision (EU) 2022/691 amending Implementing Decision (EU) 2016/2323 establishing the European List of ship - recycling facilities pursuant to Regulation (EU) No 1257/2013 of the European Parliament and of the Council, p.3-18 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022D0691&from=EN>

<sup>269</sup> Article 8 of the Regulation 1257/2013 (SRR).

<sup>270</sup> Ibidem article 9. Also see more on the duration and validity of certificates on Vincent Power, EU Shipping Law, 3rd ed., vol. 1, 2019, p. 1213-1214.

## II. c. An assessment of the Ship Recycling Regulation

Through a legal instrument with binding force and direct applicability<sup>271</sup>, such of a Regulation, the Union achieved two major underlying goals. Hence, the EU by adopting the SRR, achieved to enforce a harmonized policy on ship – recycling throughout its territory and to promote the ratification of the Hong Kong Convention by member-states<sup>272</sup>. In general, as previously established in this study, shipowners decide to dispose of their vessels when the second-hand market is not booming and the vessels' value for further trade in this market is low and particularly lower than their value in the scrap market<sup>273</sup>. Therefore, in order to safeguard occupational, health and safety working conditions and to avoid environmental degradation, in this high value sector, which both are presented as major adverse effects of the shipbreaking practices used worldwide, the Union adopted the SRR, characterized as the most stringent legal instrument regulating ship – recycling<sup>274</sup>. Following the key duties imposed to shipowners, as these presented above, the SRR not only applies to vessels of 500 g/t and above that fly the flag of member – states and members of the European Economic Area (EEA) destined to be dismantled, but as well to vessels of the same tonnage, regardless of the flag that they are flying, when they call a port or anchorage of an EU member – state or a state of the EEA<sup>275</sup>. Moreover, in reality shipowners are encouraged by their P&I Clubs<sup>276</sup> as well to exercise due diligence when choosing a ship – recycling facility, to prepare their vessels for recycling in a sustainable approach and to comply with all the requirements deriving from the binding EU regulatory framework, but also from the Hong Kong Convention, despite the fact that the latter international legal document is not in force and therefore not binding upon them<sup>277</sup>.

However, despite the aspiration to adopt within the EU a firm and comprehensive set of strict rules regulating ship – recycling, yet again the main problem remains. Hence, due to the fact that the reflagging procedure of vessels is in practice easy and cheap, most commonly shipowners decide prior to the recycling, to sell their vessel to intermediates, also known as cash-byers or to change the flag of the ship<sup>278</sup>. This way shipowners circumvent the SRR and their responsibilities and obligations deriving from it, simply because it is easier and cheaper for them than to comply with all of the requirements provided in the Regulation.

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<sup>271</sup> Article 288 TFEU.

<sup>272</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 188.

<sup>273</sup> Martin Stopford, *Maritime Economics*, 3<sup>rd</sup> ed, 2009, p. 648-652.

<sup>274</sup> Lin Lin, Kuishuang Feng, Zheng Wan, Peng Wang, Xianghui Kong, Ning Zhang, Klaus Hubacek, Jiashuo Li, Unexpected side effects of the EU Ship Recycling Regulation call for global cooperation on greening the shipbreaking industry, *Environmental Research Letters*, vol. 17, 2022, p. 3.

<sup>275</sup> See more on Standard Club, *Bulletin on Ship Recycling; Guidelines for devising a strategy in compliance with complex regulatory framework*, 2020, p. 4.

<sup>276</sup> See more on Paul Bennett, *Mutual risk; P&I insurance clubs and maritime safety and environmental performance*, *Marine Policy*, vol. 25, 2001, p. 13-21.

<sup>277</sup> See more on Standard Club, *Bulletin on Ship Recycling; Guidelines for devising a strategy in compliance with complex regulatory framework*, 2020, p. 13.

<sup>278</sup> Urs Daniel Engels, *European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention*, vol. 24, 2013, p. 214-215.

In order to tackle the aforementioned problem of the reflagging of vessels, the European Commission in a communication in 2017<sup>279</sup> suggested that the most promising and most appropriate measure is the adoption of a Ship – Recycling License. Hence, the EC recommended that shipowners should obtain a license when calling at an EU port<sup>280</sup>, charged with a contribution. Provided that the ship was sent to a ship – recycling facility included in the European List, the full capital amount would be returned to the ultimate owner of the ship, whereas in the case where the chosen facility was not included in the List, the penalty would be a forfeiture of the accrued rights<sup>281</sup>. Nevertheless, the Commission concluded that any additional measures on financial incentives, such as the proposed ship – recycling license were not to be adopted yet, but rather they would be reassessed at a later stage<sup>282</sup>.

In a nutshell, the Regulation is indeed an improvement compared to previous international and European legal instruments regulating safe and sound ship – recycling explicitly or the shipment of hazardous wastes, such as vessels destined to be dismantled. Nonetheless, certain weak spots can be identified, such as the undisturbed circumvention through reflagging vessels under EU flags to non – EU flags. In addition to that, the Regulation lacks international enforcement and uniformity, in order to achieve consistent international ship – recycling conditions and practices, which would be the most effective approach to regulate the shipbreaking industry, rather than regional regulations.

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<sup>279</sup> COM (2017) 420 final, Report from the Commission to the European Parliament and the Council on the feasibility of a financial instrument that would facilitate safe and sound ship – recycling.

<sup>280</sup> Ibidem, p. 5 recital 1, where *'The license would be an instrument of a public, administrative law nature'*.

<sup>281</sup> Ibidem, recital 4 and 5.

<sup>282</sup> See more on ship – recycling license as a financial instrument on Caroline Devaux, Jean-Philippe Nicolai, Designing an EU Ship Recycling License; A roadmap, Marine Policy, vol. 117, 2020, p. 1-7. Also see Han Kogels, Ton Stevens, Ship Recycling financial instruments: A tax or not a tax?, Erasmus Law Review, vol. 13 (2), 2020, p. 64-67.

## **PART 2; A REVIEW OF THE SHIOWNERS' LIABILITY REGIME UNDER INTERNATIONAL AND EUROPEAN LAW**

### **A. The International liability regime**

#### **I. The legally binding Basel Convention**

As previously stated, the international initiative that led to the adoption of the Basel Convention in 1989, which entered into force in 1992, as revised in 2019, marked a new perspective towards the management of hazardous wastes. Moreover, in the absence of any other legal document, the Basel Convention is the first and only binding international legal document, yet to be in force, associated with ship – recycling, based upon the minimization of the amount and hazard level of produced wastes<sup>283</sup>, the disposal of wastes as close possible to the source of the generation and the environmentally sound management and disposal of hazardous wastes, consistent with the protection of human health<sup>284</sup>. Moreover, the Convention sets the obligation to each contracting party to take appropriate legal, administrative and any other measures, in order to prevent and punish any conduct of illegal traffic of hazardous wastes or other wastes, which explicitly is characterized as criminal<sup>285</sup>. One of the most fundamental obligations imposed with the Basel Convention was introduced in 1995 with the Ban Amendment and particularly with article 4A which prohibits all kind of transboundary exports of hazardous wastes in whatever shape, whether destined for recycling or mere disposal, from OECD to non – OECD states.

Nevertheless, the chosen legal instrument intended to set a firm liability regime and to provide for adequate and prompt compensation, the 1999 Protocol on liability and compensation for damage resulting from transboundary movements of hazardous wastes and their disposal, failed to be adopted, due to the lack of the conditions, as these are set out in article 29 of the Protocol<sup>286</sup>. The Protocol introduced a strict<sup>287</sup>, fault-based<sup>288</sup> liability regime for damage, due to an incident occurring during a transboundary shipment of hazardous wastes and other wastes and their disposal<sup>289</sup>.

The combination of both the adoption failure of the Protocol on liability and compensation regime and the circumvention of the Basel Convention in overall by the maritime industry and the

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<sup>283</sup> Article 4 §2 of the Basel Convention.

<sup>284</sup> See preamble of the Convention.

<sup>285</sup> Article 4 §3,4 of the Basel Convention.

<sup>286</sup> Article 9 §1 of the Protocol *'The Protocol shall enter into force on the ninetieth day after the date of deposit of the twentieth instrument of ratification, acceptance, formal confirmation, approval or accession'*. Until this day, 13 states have signed the Protocol on liability and compensation regime.

<sup>287</sup> Ibidem article 4 *'The person who notifies, shall be liable for damage until the disposer has taken possession of the hazardous wastes and other wastes. Thereafter the disposer shall be liable for damages [...]'*.

<sup>288</sup> Ibidem article 5 *'[...] any person shall be liable for damage caused or contributed to by his lack of compliance with the provisions implementing the Convention or by his wrongful intentional, reckless or negligent acts or omissions [...]'*.

<sup>289</sup> Ibidem articles 1, 2 and 3.

shipbreaking business, due to the reluctance of including operational vessels destined to be dismantled within the meaning of the Convention<sup>290</sup> or the difficulty on actually diagnosing the intention of a shipowner to dispose of his vessel, leads to the inefficiency of the liability regime under the Basel Convention and therefore to the prolongation of unsafe and unsound ship – recycling practices<sup>291</sup>.

### **I. a. The civil liability under the Basel Convention and the Protocol**

In order for the Basel Convention to apply in ship – recycling, it is preliminary mandatory for the vessel that is destined to be dismantled, to fall within the definition of wastes<sup>292</sup> and therefore the shipowner becomes waste generator, meaning the person whose activity produces hazardous wastes or other wastes, or in the absence of that person or the inability to detect the producer, the person who is possession and control of those wastes<sup>293</sup>. The critical moment that a vessel in one piece becomes hazardous waste<sup>294</sup> coincides with the intention of the shipowner to dispose of his vessel. Nonetheless, in reality the shipowner's intention is rather difficult to be detected. Actually, it is easy to circumvent the Basel Convention and therefore the maritime and the shipbreaking industry do so and continue to conduct unsustainable practices, such as the beaching method<sup>295</sup>, that are most commonly used in shipbreaking yards in India, Pakistan and Bangladesh with tremendous impact on workers' health and safety conditions and environmental pollution<sup>296</sup>, aiming primarily to avoid the strict prohibitions of the legal framework and motivated by economic incentives. Shipowners could be held accountable for circumventing the Basel Convention and choosing environmentally unsafe practices to recycle their vessels, however even public authorities lack prior knowledge about transboundary movements of hazardous waste, leading in a nutshell to the enforcement failure of the Basel Convention and the general failure to regulate the ship – recycling industry<sup>297</sup>.

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<sup>290</sup> Saurabh Bhattacharjee, From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back, *Trade, Law and Development*, 2009, p. 208-211, 214.

<sup>291</sup> Henning Jessen, Safe and environmentally sound ship – recycling – Is there a case for liability claims? in Baris Soyer, Andrew Tettenborn, *Maritime Liabilities in a global and regional context*, 2019, p. 90.

<sup>292</sup> Article 2 §1 of the Basel Convention.

<sup>293</sup> *Ibidem* §18.

<sup>294</sup> Ishtiaque Ahmed, The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal: A legal misfit in global Ship Recycling jurisprudence, *Washington International Law Journal*, vol. 29 (2), 2020, p.433, where; '[...] a ship in one piece is per se hazardous waste'.

<sup>295</sup> See supra footnote 211.

<sup>296</sup> See more on the environmental impact of ship – breaking in Bangladesh on Md. Imrul Jobaid, Md. Moniruzzaman Khan, A.K.M. Kamrul Haque, Ishtiaque Ahmed, Ship Recycling and its environmental impact: A brief overview of Bangladesh, *IOSR Journal of Business and Management*, vol. 16 (10), 2014, p. 31-37. See, as well on Ishtiaque Ahmed, The origin and evaluation of Ship breaking regime of South Asia: A critical perspective from Bangladesh, *Legal Issues Journal*, vol. 8 (2), 2020, p. 36-39. Also see on World Bank, Report on Shipbreaking and recycling industry in Bangladesh and Pakistan, Maria Sarraf, Frank Stuer-Lauridsen, Milen Dyoulgerov, Robin Bloch, Susan Wingfield, Roy Walkinson, 2010, p. 27-44

<sup>297</sup> *Ibidem* footnote 290, p. 90-91.

The above being mentioned, and despite the fact that the liability regime in ship – recycling under the scope of the Basel Convention presents limited discussion<sup>298</sup>, nevertheless, the shipping industry and in particular the Baltic and International Maritime Council (BIMCO) has introduced and established standardized private contract forms, in order to facilitate the very much needed speed of commercial transactions in general, for example charter parties, bills of lading and other standard agreements and standalone clauses to supplement the aforementioned standard contracts. Since 1987, BIMCO has introduced and since then updated in 2001 and 2012<sup>299</sup> a private standard contract, the so-called RECYCLECON<sup>300</sup> for the sale of ships for recycling in a safe and environmentally sound manner. The contract incorporates many of the requirements of the Hong Kong Convention, such as the Inventory of Hazardous Materials and the Ship - Recycling Plan and private technical standards developed by the International Standardization Organization (ISO).

The Basel Convention provides the liability regime, inter alia, of the shipowner<sup>301</sup>. Hence, the contracting parties of the Convention shall cooperate, in order to adopt a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes. The Protocol of the Basel Convention indeed adopted in 1999 but, as already mentioned, did not enter into force, due to the lack of the ratifications needed.

However, after the Protocol enters into force<sup>302</sup>, and in case that a damage shall occur as a result of a transboundary shipment of a vessel destined to be disposed of, it shall apply. Moreover, the Protocol provides the damages for which compensation shall be given. Thus, any loss of life or personal injury, loss of or damage to property, loss of income deriving from an economic interest in any use of the environment, incurred as a result of impairment of the environment, taking into account savings and costs (out of pocket), the costs of measures of reinstatement, within the meaning of article 2 par. 2 (d) of the Protocol, of the impaired environment, limited to the costs of measures actually taken or to be undertaken and the costs of preventive measures, within the meaning of article 2 par. 2 (e), are all damages for which the Protocol shall apply<sup>303</sup>. In other words, the Protocol covers both personal/property damage and economic loss.

Nonetheless, no liability shall attach to the shipowner if he proves that the damage was the result of an act of armed conflict, hostilities, civil war or insurrection, the result of a natural phenomenon of exceptional, inevitable, unforeseeable and irresistible character, wholly the result of compliance with a compulsory measure of a public authority of the State where the damage

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<sup>298</sup> Henning Jessen, Safe and environmentally sound ship – recycling – Is there a case for liability claims? in Baris Soyer, Andrew Tettenborn, Maritime Liabilities in a global and regional context, 2019, p.89.

<sup>299</sup> See more on the BIMCO official website on <https://www.bimco.org/search-result?term=RECYCLECON>

<sup>300</sup> See Appendix 12, BIMCO RECYCLECON, Standard contract for the sale of vessels for green recycling. Also see more about the RECYCLECON on Lawrence J. Kahn, Everything American maritime lawyers need to know about Ship Recycling ... But were afraid to ask, Tulane Maritime Law Journal, vol. 45 (1), 2020, p. 10-18.

<sup>301</sup> Article 12 of the Basel Convention.

<sup>302</sup> Ibidem article 3 §6 (a).

<sup>303</sup> Ibidem article 2.



occurred and wholly the result of the wrongful intentional conduct of a third party, including the person who suffered the damaged<sup>304</sup>.

Furthermore, from the letter and the spirit of the Protocol it is evident that in principle the person who is under the obligation to notify of the intention and the upcoming transboundary movement of the vessel destined to be recycled, shall be liable (strict liability) for damage until the disposer has taken possession of the hazardous waste, whereas thereafter the disposer shall be liable for any occurring damage<sup>305</sup>. Hence, primarily the person liable for any damage is the shipowner. However, the Protocol extends the liability regime to any person who contributed to the damage by his lack of compliance with the provisions implementing the Basel Convention or by his wrongful intentional, reckless or negligent acts or omissions (fault-based liability)<sup>306</sup>. It is worth mentioning that the fault-based liability regime provided by the Protocol shall not affect the domestic law regarding liability of servants or agents. Analogous to the above, is the provision according to which *'whenever the provisions of the Protocol and the provisions of a bilateral, multilateral or regional agreement apply to liability and compensation for damage caused by an incident arising during the same portion of a transboundary movement, the Protocol shall not apply provided the other agreement is in force for the Party or Parties concerned and had been opened for signature when the Protocol was opened for signature, even if the agreement was amended afterwards'*<sup>307</sup>.

Yet another characteristic of the shipowner's strict liability is that it can be limited. Thus, *'The persons liable under Article 4 shall establish and maintain during the period of the time limit of liability, insurance, bonds or other financial guarantees covering their liability under Article 4 of the Protocol for amounts not less than the minimum limits specified in paragraph 2 of Annex B'*<sup>308</sup>.

According to the strict liability regime that the Protocol provides in article 4, it is evident that the liability for any damage caused as a result of the movement of the vessel destined to be recycled, falls within both the shipowner and the ship – recycling facility sphere of operation<sup>309</sup>. Hence, both the aforementioned actors can be held accountable for causing damage, depending on the specific moment that the damage has occurred. In other words, until the disposer or else the ship - recycling facility has taken possession of the vessel intended to be recycled, the shipowner shall be liable for damages. Therefore, following the delivery of the vessel to the shipbreaking facility, the disposer shall bear the responsibility for the environmentally safe and sound dismantling of the vessel and shall repair any damage that has taken place from the time that has taken possession of the vessel.

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<sup>304</sup> Article 4 §5 of the Basel Convention.

<sup>305</sup> Article 4 §1 of the Protocol.

<sup>306</sup> Ibidem article 5.

<sup>307</sup> Ibidem article 11.

<sup>308</sup> Ibidem article 14 §1.

<sup>309</sup> See more on Tadayoshi Terao, From shipbreaking to Ship Recycling: The relocation of Recycling sites and the expanding international approach, Chapter 7 from Kojima, Michida ed, in Economic Integration and Recycling in Asia: An Interim Report, Chosakenkyu Hokokusho, Institute of Developing Economics, 2011, p. 119, 124-125

## I. b. The criminal liability under the Basel Convention

Millions have pondered over the criminalization of incidents occurred in the marine environment, in particular, but as well in land and air, having tremendous impact on the overall degradation of flora and fauna. The enforcement of environmental criminal liability is a top concern both for the international and the European community. Many have argued that the threat of criminalization and the lack of immunity could as well constitute a counter-motive for the industry<sup>310</sup>. Moreover, they suggest that upon an incident of environmental pollution, criminal sanctions could not restore the occurring degradation and therefore, do not achieve the underlying goal, which is the environmental protection in the first place. However, it is this authors' opinion that environmental criminal liability could provide an extra layer of protection prior to the incident through protective measures that could take place exactly because of the fear of being prosecuted for causing an environmental damage. In other words, the added value of criminal liability in environmental law could be seen under the scope and as a manifestation of two fundamental principles of environmental law, namely the principle of prevention and the principle of precaution<sup>311</sup>.

The delimitation of environmental crime though does not come without difficulties. First off, the approach to the mental state or moral element of criminal liability varies from legal order to legal order<sup>312</sup>. In addition to that, criminal sanctions in environmental law are a relatively new approach and ever evolving<sup>313</sup>.

The Basel Convention structures a firm system introducing criminal liability for any transboundary movement of hazardous wastes or other wastes, in our case of vessels destined to be recycled, in the event of illegal traffic<sup>314</sup>. Hence, in the circumstances that vessels destined to be dismantled, in other words in the existence of hazardous wastes, that are moved cross-border, breaching any procedure provided in the Basel Convention, constitutes illegal traffic and shall be punished<sup>315</sup>. More profoundly, article 9 of the Convention provides that any transboundary movement of hazardous wastes shall be deemed illegal traffic and therefore punishable offence in criminal procedure, in case that the export of the vessel has been conducted without prior written notification of the shipowner to all states concerned, or without the prior written consent, pursuant

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<sup>310</sup> John Witte, *Salvage, safety, the regulatory environment and protection for the salvor*, chapter 6 *Criminalization for Maritime Safety and Security*; Legal implications to ships, cargo and the human element, 9th International Conference of Maritime Law, p. 23.

<sup>311</sup> See more on the distinction of the two principles on Lavanya Ramajani, Jacqueline Peel, *The Oxford handbook of International environmental law*, Oxford University Press, 2nd ed., 2021, p. 211-213, 276-278, 306-307.

<sup>312</sup> LeRoy C. Paddock, David L. Markell, Nicholas S. Bryner, *Compliance and enforcement of environmental law*, Edward Elgar Publishing, vol. IV, 2017, p. 189, where '[...] *Some require proof that the actor was aware of the conduct, results and circumstances set out in the act or material element of the crime; some require only awareness of risks or possibilities; some are satisfied with proof that the actor should have been aware of such risks; some require mental states beyond those focused on the factual elements of the offence; and some environmental crimes require no mental state at all. [...] Research and a general discussion of mental state are hampered by a variety of challenges stemming from both translation and variations in the use of terminology*'.

<sup>313</sup> *Ibidem*, p. 198.

<sup>314</sup> Article 9 §1 of the Basel Convention.

<sup>315</sup> Despoina Farmakidi, *The legal framework (International and European) of shipbreaking; Shipowner's obligations and liability*, 2019, p. 65.

to the provisions of the Convention, of the import state. Furthermore, the transboundary movement of the vessel intended to be recycled shall be deemed illegal traffic, in the event that a written consent may have been obtained from the import state, however, the consent has been a product of falsification, misrepresentation or fraud of the shipowner or that the procedure does not conform in a material way with the documents provided. Last but not least, illegal shall be characterized the deliberate disposal (e.g. dumping) of hazardous wastes or other wastes, in contravention of the Basel Convention and of general principles of international law, such as the principle of proximity, according to which the damage should be rectified in principle as close possible to the place where it occurred or where the waste was produced<sup>316</sup>.

The Basel Convention also provides in article 9 that *'in case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic, as the result of conduct on the part of the exporter or generator, the state of export shall ensure that the wastes in question are taken back by the exporter or the generator or, if necessary, by itself into the state of export, or, if impracticable, are otherwise disposed of in accordance with the provisions of this Convention'*, meaning in an environmentally safe and sound manner.

In the event that the responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the parties involved or other parties, as appropriate, *'shall ensure, through co-operation, that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the state of export or the state of import or elsewhere as appropriate'*<sup>317</sup>.

Finally, the Convention refers to the contracting parties that in the spirit of cooperation and in order for the objectives of the Convention to be fulfilled, they shall introduce appropriate domestic regulatory measures to prevent and punish illegal traffic and to ensure that the management of hazardous wastes and in particular of vessels destined to be recycled, including their cross-border shipment and disposal shall be in consistency with the protection of human health and safety and the environmental preservation.

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<sup>316</sup> C-292/12, Ragn-Sells A.S. v. Sillamäe Linnavalitsus (request for a preliminary ruling under Article 267 TFEU from the Tartu ringkonnakohus, Estonia), par. 49, where the Court held that *'like Regulation No 259/93 which preceded it, the aim of Regulation No 1013/2006 is to provide a harmonized set of procedures whereby movements of waste can be limited in order to secure protection of the environment (see, to that effect, Case C-411/06 Commission v Parliament and Council [2009] ECR I-7585, paragraph 72). It follows that it is not necessary to examine also whether a national measure on waste shipment complies with Articles 34 TFEU to 36 TFEU (see, to that effect, Case C-324/99 DaimlerChrysler [2001] ECR I-9897, paragraph 46)'*, par. 56, where the Court held that *'As regards, first of all, waste destined for disposal operations and mixed municipal waste, it follows from Article 11(1)(a) of Regulation No 1013/2006, read in the light of recital 20 in the preamble thereto, and Article 16 of Directive 2008/98, that the Member States may adopt measures of general application restricting shipments of that waste between Member States, in the form of general or partial prohibitions of shipments, by way of implementation of the principles of proximity, priority for recovery and self-sufficiency under Directive 2008/98'*.

<sup>317</sup> Article 9 §2 (4) of the Basel Convention.

## II. The inapplicable Hong Kong Convention

The Hong Kong Convention has undoubtedly introduced improvements in relation to previous regulatory instruments, to the conditions of the industry towards an environmentally sustainable, safe and sound shipbreaking regime<sup>318</sup>. Nonetheless, specific vulnerable points within the provisions of the Convention cannot be disregarded.

In respect with the liability regime, it is more than evident that the Hong Kong Convention provides a more lenient regime for the shipowners in comparison with the Basel Convention. As mentioned above, the Basel Convention introduces provisions, which explicitly consider the illegal traffic of hazardous wastes or other wastes as criminal offence and imposes criminal penalties upon any breach of the obligatory requirements especially from shipowners as wastes generators<sup>319</sup>.

Contrariwise, the Hong Kong Convention creates an unjust responsibility regime in favor of the shipowners who wish to dispose of their vessels<sup>320</sup>. First off, the Convention establishes that the contracting parties shall collaborate, in order to detect possible violations and the enforcement of the provisions<sup>321</sup>. In the event that *'there is sufficient evidence that a ship is operating, has operated or is about to operate in violation of any provision in the Convention'* an investigation of this ship shall be held when the vessel *'enters the ports or offshore terminals under the jurisdiction of another state'*, so as for appropriate measures to be taken. Furthermore, in case that the vessel is found to be in breach of any provision of the Convention, then measures, such as warning, detention, dismissal, or exclusion of the ship from the ports of the state conducting the inspection, shall be taken as well. Quite similar detection of violations system is followed to examine whether a ship – recycling facility *'is operating, has operated or is about to operate in violation of any provision of the Convention'*, whereas appropriate measures shall be taken upon any violation of the Hong Kong Convention<sup>322</sup>.

In addition to the above, the Convention introduces a liability regime, which nevertheless does not extend to criminal liability<sup>323</sup> and does not create a quite secure and uniform international liability system. In particular, the Convention provides that *'any violation of the requirements of the Convention shall be prohibited by national laws and in the case of a ship, sanctions shall be established under the law of the Administration, wherever the violation occurs'*, whereas *'[...] it shall cause proceedings in respect of the alleged violation to be taken as soon as possible, in accordance with its law [...]'*<sup>324</sup>. Moreover, in the event that a ship – recycling facility is found in

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<sup>318</sup> See supra footnote 201.

<sup>319</sup> See supra footnotes 207, 303 and 313.

<sup>320</sup> See more on Kanu Priya Jain, J.F.J. Pruyn, Hans J.J. Hopman, Critical analysis of the Hong Kong International Convention on ship recycling, *International Journal of Environmental, Ecological, Geological and Mining Engineering*, vol. 7 no. 10, 2013, p. 689.

<sup>321</sup> Article 9 of the Hong Kong Convention.

<sup>322</sup> *Ibidem* article 9 §4.

<sup>323</sup> See more on Saurabh Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling takes one step forward two steps back*, *Trade, Law and Development*, 2009, p. 224.

<sup>324</sup> *Ibidem* article 10 §1 (1).

breach of the requirements of the Convention, *'sanctions shall be established under the law of the party having jurisdiction over the ship - recycling facility'* and proceeding in respect of the alleged violation shall take place in accordance with the national law of the party empowered to investigate the breach<sup>325</sup>.

Finally, it is readily perceived that, despite the fact that the Hong Kong Convention does actually provide provisions under which any kind of breach of the Convention shall result to the imposition of sanctions, however, refers to the contracting parties to determine the nature of the responsibility and adopt respective measures to punish unsustainable shipbreaking practices<sup>326</sup>. A regulatory provision such as the above, could not possibly lead to unified solutions, simply because each national jurisdiction is empowered to regulate as it seems fit and therefore, it is obvious and natural that when and if the Hong Kong Convention enters into force and the contracting states will have to adopt measures, there will be variances in the responsibility regime, notwithstanding the fact that the Convention provides that the sanctions imposed by the national laws shall be adequate in severity to discourage violations of the Convention wherever they occur<sup>327</sup>. In reality, the liability regime under the Hong Kong Convention leaves a lacuna, which shipowners can use to their advantage and prior the recycling of their vessel could hypothetically change the flag of their vessel to a flag of a state of convenience, which under its national law provides for civil liability and does not impose criminal sanctions at all, or provides less strict measures or sanctions<sup>328</sup>.

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<sup>325</sup> Article 10 §1 (2) of the Hong Kong Convention.

<sup>326</sup> *Ibidem* article 10 §2 (1,2) *'Any violation of the requirements of the Convention, within the jurisdiction of any party, shall be prohibited and sanctions shall be established under the law of that party. Whenever such a violation occurs, that party shall either: 1. cause proceedings to be taken, in accordance with its law, or 2. furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred'*.

<sup>327</sup> *Ibidem* article 10 §3.

<sup>328</sup> See more on the possibility of re-flagging of vessels on Kanu Priya Jain, J.F.J. Pruyn, Hans J.J. Hopman, Critical analysis of the Hong Kong International Convention on ship recycling, *International Journal of Environmental, Ecological, Geological and Mining Engineering*, vol. 7 no. 10, 2013, p. 689 *'Another major lacuna in the Convention is that party flag ships after re-flagging to a non-party flag can be sent to a ship - recycling facility in a non-party recycling state. This indicates to recycling states that they may be able to get ships for recycling even after not signing the Convention and this short coming may prove fatal for the success of the Convention'*. Also see on Tony George Puthucherril, From shipbreaking to sustainable ship – recycling; Evolution of a legal regime, Martinus Nijhoff Publishers, vol. 5, 2010, p. 175-176 *'From the perspective of punitive sanctions, the Ship Recycling Convention leaves room for abuse. While the Basel Convention characterizes "illegal traffic" as a criminal act, the Ship Recycling Convention does not address this issue leaving it to be determined by the national laws of state parties. This provides a loophole for shipowners who may want to recycle their ships in countries that have lighter sanctions, as a precaution in case they find themselves to be on the wrong side of the law'*.

## B. The EU liability regime

The European Union as an active international actor in general and particularly in shaping the shipping industry, has already been established and has been evidently supported by its continuous promotion and contribution to a formation of a comprehensive legal regulatory framework concerning environmentally safe and sound ship - recycling<sup>329</sup>.

First off, the EU has been a contracting party to the Basel Convention<sup>330</sup> and has transposed within the EU legal order both the Convention and the Basel Ban Amendment by adopting the Regulation (EC) No 1013/2006 on shipments of waste. The WSR forms a system governing the control of waste shipments, prohibiting, inter alia, the export of hazardous wastes, such as a vessel destined to be recycled<sup>331</sup>, from EU and OECD states<sup>332</sup> to non-OECD states<sup>333</sup>. The Regulation aspires to protect developing countries from being used from developed states as dumping ground to dispose of hazardous wastes, having severe and negative impact with social and environmental consequences.

Moreover, the EU adopted a specific legal instrument on ship – recycling, the Ship Recycling Regulation (EU) 1257/2013, which came into force in 2019, partly replaced the WSR and transposed in essence the Hong Kong Convention with only slight differences. The objective of the SRR is to promote an environmentally friendly cradle to grave approach that follows the vessel throughout its operational life, from the building until the recycling, and to minimize or even eliminate incidents or other adverse effects on human health and safety and on the environment<sup>334</sup>. Moreover, the Regulation aims to facilitate the ratification of the Hong Kong Convention<sup>335</sup> and thus it follows closely its spirit and objectives, though it includes complementary safety and environmental requirements. Therefore, the Regulation, inter alia, sets conditions for both vessels<sup>336</sup> and recycling facilities<sup>337</sup>, so as to ensure that recycling is conducted in a ‘green’ manner, restricts or prohibits the use of hazardous materials on ships<sup>338</sup> and establishes a European list of ship recycling facilities<sup>339</sup>.

However, in practice concerning the WSR the shipowners have taken advantage of the loopholes, so as to circumvent the application of the Regulation, claiming mainly that their vessels fall outside the definition of hazardous wastes, in order to avoid any kind of obligations, costs or

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<sup>329</sup> Vincent Power, *EU Shipping Law*, Informa Law from Routledge, Lloyd’s Shipping law Library, 3rd ed., vol. 1, 2019, p. 1199.

<sup>330</sup> Council’s Decision 93/98/EEC of 1 February 1993 on the conclusion on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention).

<sup>331</sup> See supra footnote 75.

<sup>332</sup> See supra footnote 76.

<sup>333</sup> See supra footnote 77.

<sup>334</sup> Article 1§1, Regulation 1257/2013 on Ship recycling.

<sup>335</sup> *Ibidem* Article 1§3.

<sup>336</sup> *Ibidem* Article 6,7,8,9.

<sup>337</sup> *Ibidem* Article 13.

<sup>338</sup> Article 4, Regulation 1257/2013 on Ship recycling.

<sup>339</sup> *Ibidem* Article 16.

administrative requirements<sup>340</sup>. In an analogous manner, and despite the aspiration to adopt within the EU a firm and comprehensive set of strict rules regulating ship – recycling, yet again the main pragmatic problem remains. Hence, due to the fact that the reflagging procedure of vessels is in practice easy and cheap, most commonly shipowners decide prior to the recycling, to sell their vessel to intermediates, also known as cash-byers or to change the flag of the ship<sup>341</sup>. This way shipowners circumvent the SRR and their responsibilities and obligations deriving from it, simply because it is easier and cheaper for them, than to comply with all of the requirements provided in the Regulation. Therefore, it is actually rather difficult to enforce the liability regime, deriving from the aforementioned Regulation, when in reality the shipowners attempt to avoid their application in the first place.

Nonetheless, the EU provides a three - layer protection and system of liability for the shipowners who intend to dispose of their vessels, established and deriving from the WSR, the SRR and finally from the Directive 2008/99/EC of the European Parliament and of the Council on the protection of the environment through criminal law<sup>342</sup>.

## **I. Requirements and limitations**

### **I. a. The liability regime under the WSR**

The WSR establishes a liability regime in the event that a shipowner is in breach of the provisions, as these are laid down in the Regulation and providing that either his EU flagged vessel or his vessel, regardless of the flag, sailed from an EU port, intended to be recycled.

The liability regime under the WSR is activated in cases of illegal shipments<sup>343</sup> and particularly in cases, where any shipment of waste, in our case of a vessel destined to be dismantled, was conducted without prior notification to all competent authorities concerned or without the prior consent of the competent authorities concerned. Furthermore, it is illegal traffic of wastes and therefore triggers the liability regime of the shipowner, when the movement was conducted with consent obtained from the competent authorities concerned, but in reality the consent was a product of falsification, misrepresentation or fraud or the shipment was conducted in a way which is not specified materially in the notification or movement documents or else in a way, which results in recovery or disposal in contravention of European or international rules. The latter could concern, for example, the case where the shipowner breached his main obligation to choose a recycling – facility within the EU or within OECD states and shipped his vessel to be dismantled in a non – OECD state<sup>344</sup>.

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<sup>340</sup> Urs Daniel Engels, European Ship Recycling Regulation, Entry-Into-Force Implications of the Hong Kong Convention, vol. 24, 2013, p. 174.

<sup>341</sup> Ibidem, p. 214-215.

<sup>342</sup> Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0099>

<sup>343</sup> Article 2 §35 of the WSR.

<sup>344</sup> See supra footnotes 232-233.

The Regulation provides that in the event of a breach of its provisions, the liability regime is activated and member – states must take actions, in order to enforce its application<sup>345</sup>. More profoundly, member - states shall *'lay down the rules on penalties applicable for infringement of the provisions of the Regulation and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member - states shall notify the Commission of their national legislation relating to prevention and detection of illegal shipments and penalties for such shipments'*.

### **I. b. The liability regime under the SRR**

In a similar way, the SRR provides that in the event that shipowners are unable to fulfill their obligations, as these are defined in the Regulation, such as indicatively the failure to establish the inventory of hazardous wastes, the failure to disclose necessary information for the draft of the ship – recycling plan, the neglect to prior the recycling notification and consent from the competent authorities, they are to be held liable.

Hence, member - states must lay down *'provisions on penalties applicable to infringements of the Regulation and shall take all the measures necessary to ensure that they are applied. The penalties provided for shall be effective, proportionate and dissuasive [...], member - states shall cooperate, bilaterally or multilaterally, with one another in order to facilitate the prevention and detection of potential circumvention and breach of the Regulation [...], member - states shall communicate to the Commission the provisions of their national law relating to the enforcement of this Regulation and the applicable penalties'*<sup>346</sup>.

Yet again, it is evident that shipowners are under the overriding obligation to exercise due diligence when choosing a ship – recycling facility, or else the liability regime is activated and they are to be held liable for shipping their vessel to be dismantled to a facility outside of the European List. However, the aforementioned obligation is limited until the moment that shipowners sell their vessel either to a ship – recycling facility or to an intermediate, a cash – buyer<sup>347</sup>. As a result, a loophole can be identified once more for the circumvention of the strict provisions of the Regulation.

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<sup>345</sup> Article 50 of the WSR.

<sup>346</sup> Article 22 of the SRR. Also see more on Vincent Power, EU Shipping Law, Informa Law from Routledge, Lloyd's Shipping law Library, 3rd ed., vol. 1, 2019, p. 1222-1223.

<sup>347</sup> The Regulation surprisingly and intentionally sets aside the recommended provision under which the EC suggested that; *'Where a ship is sold and, within less than six months after the selling, is sent for recycling in a facility which is not included in the European list, the penalties shall be: (a) jointly imposed to the last and penultimate owner if the ship is still flying the flag of an European Member State; (b) only imposed to the penultimate owner if a ship is not flying anymore the flag of a European Member State'*. See more on COM (2012) 118 final Proposal for a Regulation of the European Parliament and of the Council on ship recycling [https://www.eumonitor.eu/9353000/1/j4nvke1fm2yd1u0\\_j9vvik7m1c3gyxp/vkewedsph8zi/v=s7z/f=/com\(2012\)118\\_en.pdf](https://www.eumonitor.eu/9353000/1/j4nvke1fm2yd1u0_j9vvik7m1c3gyxp/vkewedsph8zi/v=s7z/f=/com(2012)118_en.pdf)



## II. Civil and administrative liability

As already presented above, both Regulation on shipments of wastes and Regulation on ship - recycling provide for provisions that refer to member – states, in order to enforce their application in the event of any occurring breach and furthermore to adopt regulatory measures that ensure their application. Hence, articles 50 and 22 of the Regulations respectively, define that member – states shall lay down provisions on penalties applicable to any kind of violations<sup>348</sup> and shall take all the measures necessary to ensure that they are applied. Moreover, explicitly is defined that the aforementioned national measures must be effective, proportionate and dissuasive.

The preamble of the SRR additionally states that *'member – states should lay down rules on penalties applicable to infringements of the Regulation and ensure that those penalties are applied so as to prevent circumvention of ship p- recycling rules. The penalties, which may be of a civil or administrative nature, should be effective, proportionate and dissuasive'*<sup>349</sup>. Therefore, national laws are to decide upon the nature of the imposed penalties, which can be of civil or administrative one and in consistency with the polluter – pays principle<sup>350</sup>.

Moreover, according to recital 22 of the Preamble of the SRR *'Since the objective of the Regulation, namely to prevent, reduce or eliminate adverse effects on human health and the environment caused by the recycling, operation and maintenance of ships flying the flag of a Member State, cannot be sufficiently achieved by the Member States, due to the international character of shipping and ship recycling, but can rather by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of*

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<sup>348</sup> C-624/17, *Openbaar Ministerie v. Tronex BV* (Request for a preliminary ruling from the Gerechtshof van Den Haag (Court of Appeal, The Hague, Netherlands)), par. 22; *'Particular attention must be paid to the fact that the object or substance in question is not or is no longer of any use to its holder, such that that object or substance constitutes a burden which he will seek to discard. If that is indeed the case, there is a risk that the holder will dispose of the object or substance in his possession in a way likely to cause harm to the environment, particularly by dumping it or disposing of it in an uncontrolled manner. That object or substance, because it falls within the concept of 'waste' within the meaning of Directive 2008/98, is subject to the provisions of that directive, which means that the recovery or disposal of that object or substance must be carried out in such a way that human health is not endangered and without using processes or methods likely to harm the environment (see, to that effect, judgment of 12 December 2013, Shell Nederland, C-241/12 and C-242/12, EU:C:2013:821, paragraph 42 and the case-law cited)'*. Also see the Opinion of the General Advocate Kokott, par. 22, 26 and 59; *'I therefore propose that the Court rule as follows: The shipment of a large consignment of electrical appliances bought from retailers or suppliers which have been returned by consumers must be regarded as a shipment of waste within the meaning of Regulation (EC) No 1013/2006 on shipments of waste, as amended by Regulation (EU) No 255/2013, if it has not been previously established that all the appliances are functional or not all the appliances are appropriately protected against damage during transportation. Appliances which have become redundant and which are in unopened original packaging, on the other hand, are not, in the absence of any further evidence, to be regarded as waste. So far as concerns returned goods whose functionality has not been checked or which require repairs to restore their functionality which have not yet been carried out, the foregoing interpretation of the concept of waste is to be applied in the case of criminal penalties for infringements only if they have occurred after the full transposition of Annex VI to Directive 2012/19/EU on waste electrical and electronic equipment or, at the latest, after the Court's judgment in the present case'*.

<sup>349</sup> Recital 17, Preamble of the SRR.

<sup>350</sup> *Ibidem* recital 19.

*subsidiarity*<sup>351</sup> as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality<sup>352</sup>, as set out in that Article, this Regulation does not go beyond what is necessary, in order to achieve that objective'. Thus, in the field of shared competences, such as in the environmental law policy<sup>353</sup> and according to the principle of subsidiarity, which is rather a principle the purpose of which is to regulate the use of powers than to allocate them, the Union has the competence provided that the objectives of the proposed action cannot be sufficiently achieved by the national laws, either at central level or at regional and local level and that the proposed action by reason of its scale or its effects can be better achieved at an EU level, then the Union can take measures. As a result, the added value of the SRR lies exactly upon the principle of subsidiarity, where in the event and to the extent that domestic measures are deemed to be insufficient as to the aspiring objective of the Regulation, then the Union can take actions for the enforcement of appropriate sanctions, under the light of the principle of proportionality<sup>354</sup>.

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<sup>351</sup> See more on the principle of subsidiarity on Nicolas de Sadeleer, Principle of subsidiarity and the EU environmental policy, *Journal for European Environmental Planning Law (JEEPL)*, vol 9 (1), 2012, p. 63-70.

<sup>352</sup> See more on the principle of proportionality on Jan H. Jans, Proportionality revised, *Legal Issues of Economic Integration*, vol. 27 (3), 2000, p. 239-265. Also see more on Aurelien Portuese, Principle of Proportionality as principle of Economic Efficiency, *European Law Journal*, vol. 18 (4), 2013, p. 1-24.

<sup>353</sup> See supra footnote 246.

<sup>354</sup> See more on Despoina Farmakidi, The legal framework (International and European) of shipbreaking: Shipowner's obligations and liability, 2019, p. 86-87.

### III. Criminal liability

#### III. a. EU' s competence to harmonize environmental criminal law

The ratification of the Treaty of Lisbon (2007-2009) marked a more integrated Union and in particular the Treaty established a multi - dimensional concept of sustainable development; social, economic and environmental<sup>355</sup>. Especially, in relation to the latter, the primary EU law provides that the protection of the environment should be high. Nevertheless, the EU competence in the area of the protection and preservation of the environment is shared with the member – states<sup>356</sup>. Furthermore, in the field of environmental criminal law, the choice of the legal basis could present legal mix – ups, but following the Lisbon Treaty and under the ordinary legislative procedure of qualified majority voting and co – decision between the Council and the Parliament, the Union can adopt measures under all aspects of the area of freedom, security and justice<sup>357</sup>. Approximation of rules, concerning the definition of criminal offences and the imposed penalties, could also fall within the competence of the Union<sup>358</sup>. However, there is no explicit mention to environmental crimes, which could under paragraph 1 of article 84 result to a different, wider approach as to the ability of harmonization of criminal law when transnational elements are to be found<sup>359</sup>. Limitations to proposals of harmonized criminal sanctions in the field of environmental law are, *inter alia*, the fundamental EU law principles of subsidiarity and proportionality<sup>360</sup>.

Specifically, in ship – recycling, both Regulations could establish a criminal liability regime for the shipowner, in the event that he is to be found in violation of his obligations and responsibilities, as these are defined in the Regulations, through reference to the environmental crime Directive<sup>361</sup>.

The SRR provides that the Commission *'shall assess which infringements of the Regulation should be brought under the scope of Directive 2008/99/EC to achieve equivalence of the provisions related to infringements between the Ship - Recycling Regulation and Regulation (EC) No 1013/2006. The Commission shall report on its findings to the European Parliament and to the Council and, if appropriate, accompany it by a legislative proposal'*<sup>362</sup>.

#### III. b. The Directive on the protection of the environment through criminal law

As previously established, both Regulation on shipments of wastes and Regulation on ship - recycling refer to the environmental crime Directive 2008/99/EC, forming a criminal liability

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<sup>355</sup> Ricaro M. Pereira, *Environmental criminal liability and enforcement in European and International law*, Brill Nijhoff, 2009, p. 175.

<sup>356</sup> Article 4 §2 (e) TFEU.

<sup>357</sup> *Ibidem* footnote 355, p. 199.

<sup>358</sup> Article 83 TFEU.

<sup>359</sup> *Ibidem* footnote 355, p. 205.

<sup>360</sup> See *supra* footnote 352.

<sup>361</sup> Directive 2008/99/EC of the European Parliament and of the Council on the protection of the environment through criminal law.

<sup>362</sup> Article 30 of the SRR.

regime for any violation of the provisions of the aforementioned Regulations, in cases where the shipowner violates his responsibilities and obligations amid the transboundary movement of his vessel in order to be dismantled.

The environmental crime Directive, *'in order to achieve effective protection of the environment, understands the need for more dissuasive penalties for environmentally harmful activities, which typically cause or are likely to cause substantial damage to the air, including the stratosphere, to soil, water, animals or plants, including to the conservation of species'*<sup>363</sup>. Moreover, the Directive obliges member - states to *'provide for criminal penalties in their national legislation in respect of serious infringements of provisions of EU law on the protection of the environment'*<sup>364</sup>. In a nutshell, the primary objective of the Directive is to provide protection to the environment in a more effective way through criminal law. It does not actually aim to implement a specific international environmental agreement, but rather a number of international environmental agreements to which the EU and the member – states are contracting parties, such as the Basel Convention<sup>365</sup>.

The Directive provides that the movement of wastes, such as the shipment of a vessel destined to be dismantled, where this activity falls within the scope of Article 2 par. 35 of the Regulation on shipments of waste, which (meaning the movement of the vessel) was conducted in an unlawful manner and committed intentionally or with at least serious negligence, constitutes a criminal offence<sup>366</sup>. Thus, member – states shall ensure that the aforementioned conduct does constitute a criminal offence and furthermore that they shall take the necessary measures to ensure that the aforementioned offence of the illegal movement of a vessel destined to be dismantled, is punishable by effective, proportionate and dissuasive criminal penalties<sup>367</sup>. Moreover, criminal liable can be deemed not only natural but also legal persons where an offence has been committed for their benefit by any person who has a leading position within the legal person, acting either individually or as part of an organ of the legal person, based on a power of representation of the legal person, an authority to take decisions on behalf of the legal person or an authority to exercise control within the legal person<sup>368</sup>.

Last but not least, it is worth mentioning the recent efforts of the European Commission to revise the environmental crime Directive, in the form of a proposal<sup>369</sup> as a part of the wider package

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<sup>363</sup> Recital 5 of the Preamble of the Directive 2008/99/EC.

<sup>364</sup> Ibidem recital 10.

<sup>365</sup> Ricaro M. Pereira, Environmental criminal liability and enforcement in European and International law, Brill Nijhoff, 2009, p. 176.

<sup>366</sup> Article 3 of the Directive 2008/99/EC. Also see the following cases on WSR and criminal liability; the Seatrade case (2018 - The District Court of Rotterdam, ECLI:NL:RBROT:2018:2108 Case number 10/994550-15), the Eide/Tide/Harrier Carrier case (2017 – Gulating Lagmannsrett (Norwegian Appeal Cour), Case number 21-073085AST-GULA/AVD1 [2022]), the Eurus London case (2015), FPOS North Sea Producer (2016)]

<sup>367</sup> Ibidem article 5.

<sup>368</sup> Ibidem article 6.

<sup>369</sup> Proposal for a Directive of the European Parliament and of the Council on the protection of the environment through criminal law and replacing Directive 2008/99/EC, December 2021 [https://ec.europa.eu/info/files/proposal-directive-european-parliament-and-council-protection-environment-through-criminal-law-and-replacing-directive-2008-99-ec\\_en](https://ec.europa.eu/info/files/proposal-directive-european-parliament-and-council-protection-environment-through-criminal-law-and-replacing-directive-2008-99-ec_en)

of initiatives under the European Green Deal. The main objective of the proposed Directive is to improve how the EU defines criminal offences related to pollution, waste and threatening biodiversity and other natural resources. By improving how Member States address the most serious environmental offences, the proposal will contribute to the Green Deal's overall goals of tackling the climate crisis, environmental degradation, pollution and loss of nature and will contribute to strengthening the environmental rule of law<sup>370</sup>. According to the Commission *'there is a real need to strengthen the protection of the environment through criminal law. Despite the seriously damaging effects of environmental crimes, current rules do not tackle them effectively enough'*. Among others, the revised Directive aspires to clarify the scope of the environmental crime Directive 2008/99/EC, to shed light on legal terms used to define environmental criminal offences and to improve the compatibility of types and level – wise of sanctions, as well as the cooperation between member – states.

### **III. c. Environmental criminal protection under the Greek national regime**

The environmental crime Directive refers to the member – states, in order for them to take action and to adopt all the necessary regulatory instruments so as to safeguard the fundamental objectives, deriving from the letter and the spirit of the Directive. Hence, member – states are under the obligation to transpose into their national legal order<sup>371</sup> the provisions of the aforementioned Directive and to take measures, in order to ensure that the offences, as defined in the Directive, are punishable by effective, proportionate and dissuasive criminal penalties imposed in the event that both natural and legal persons<sup>372</sup> violate the obligatory provisions of the law.

Furthermore, regarding the transposition of the legal act within the national set of rules, the Directive provides that *'member - states shall bring into force the laws, regulations and administrative provisions necessary to comply with the Directive before 26 December 2010'*<sup>373</sup>.

Within this framework, the Greek Law No 4042/2012 was adopted transposing the environmental crime Directive as a whole<sup>374</sup>, in order to harmonize the domestic (Greek) law with the provisions of the Directive on the protection of the environment through criminal law and to establish criminal sanctions, which are deemed to be effective, proportionate and dissuasive for the cases where environmental pollution or degradation is likely to occur or has already resulted from an illegal movement of a vessel destined to be dismantled, with the underlying purpose to safeguard the efficient and effective environmental criminal protection.

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<sup>370</sup> See more on the official WWF website <https://www.wwf.eu/?6109916/A-new-EU-Environmental-Crime-Directive>

<sup>371</sup> See more on the transposition of Directives on Robert Thomson, Same effects in different worlds: the transposition of EU directives, *Journal of European Public Policy*, vol. 16 (1), 2009, p. 1-18.

<sup>372</sup> Articles 5 and 7 of the Directive 2008/99/EC.

<sup>373</sup> *Ibidem* article 8.

<sup>374</sup> See more on Despoina Farmakidi, The legal framework (International and European) of shipbreaking: Shipowner's obligations and liability, 2019, p. 89-90.

## CONCLUSIONS-RECOMMENDATIONS

The main objectives for the journey of this research were to underline the importance of the ship - recycling business, as a distinct market within the shipping industry, which inevitably is interlinked with the concept of sustainable development and economic growth, which both are to be safeguarded from the primary EU law and to dive into its international and European regulatory framework, which in its very essence yearns to combat all of the tremendous and negative adverse effects on human health, occupational safety and environmental degradation. Moreover, to scrutinize the efficiency, implementation, deficiencies, circumventions of the aforementioned legal frameworks in practice and to answer to the question of whether there are still steps to be taken for safe and environmentally sound ship – recycling worldwide that take into account the peculiarities of the balance of the conflicting interests.

The research questions, as these are presented at the Introduction, imposed the structure of the present paper, which was constructed in two parts, each one of which complemented the other, forming a cohesive whole that examines the ship – recycling regulatory regime, the duties imposed primarily to shipowners and the liability regime at international and European level.

The need to regulate the transboundary movement and management of wastes or hazardous wastes formed a firm framework that evolved throughout the years into a more modern approach that deals with wastes in every aspect of their life. Particularly, in the event that after twenty or thirty years of operational life, where do vessels go to die? Many have pondered with the more prestigious part of a vessel, the commercial use, however the final voyage is equally of great importance. As a preliminary point, it is crucial to establish that breaking a ship down after she has come to her end of operational life, offers plenty of advantages, social, economic and dare I say environmental, by re using her parts. However, one must bear in mind that the method of the shipbreaking used is the critical point. In reality, shipbreaking facilities that use more primitive practices, such as the ‘beaching method’, which practically occurs after the vessel full speed has reached the shores of mainly South Asia, Pakistan, Bangladesh and India, offer higher prices for the purchase of the vessel, which in their perception is the major -if not the only- source of steel. Counter to that, ship – recycling facilities with higher standards, using elevated methods, such as the ‘dry-docking’ offer less. The main problem is that in a global economic system motivated by the achievement of profits, vessels basically are shipped to facilities that in principle result to the two major adverse effects of ship – recycling practices; environmental degradation on the one hand and health and safety human risks on the other hand.

From the joint efforts of international actors, NGO’s and the willingness to protect and preserve the environment, vessels destined to be dismantled were considered to fall within the meaning of hazardous wastes of the Basel Convention. Until this day, the Basel Convention on the transboundary movements of hazardous wastes is the only binding international legal instrument that regulates vessels intended to be recycled. However, despite the international application, despite the duties imposed to shipowners, inter alia, the prohibition to dispose of their vessels in non – OECD states and therefore to put a stop in taking advantage of the developing countries and using them as dumping ground for hazardous wastes that have nothing to do with the production or operation of these wastes in the first place, but in practice bear the tremendous consequences of

environmental pollution and human poverty, despite the liability regime that even imposes criminal liability in the event of illegal movement of hazardous wastes, the Basel Convention fails to properly regulate the ship – recycling industry. Shipowners avoid to disclose their intention to recycle their vessels or reflag their vessels to non – contracting parties' flags and therefore, deem the Convention inapplicable.

The second international legal instrument, the Hong Kong Convention which regulates specifically the recycling of vessels has failed to meet the requirements for its adoption and therefore, until this day has not entered into force. It is worth, though, mentioning at this point that the aforementioned Convention does not come without loopholes either that shipowners can use to circumvent the application as well.

The EU's role as key international actor in the shipping industry became more obvious from its continuous contribution to a formation of a legal regulatory framework concerning environmentally safe and sound ship - recycling. Hence, the Union adopted in 2006 the Regulation (EC) No 1013/2006 on shipments of waste, transposing in essence the Basel Convention, in which the Union is contracting party, which (meaning the Regulation) formed a system governing the control of waste movements and, inter alia, prohibited the export of hazardous wastes, such as a vessel destined to be recycled, from EU and OECD states to non-OECD states. The Regulation aspired to ensure that developing countries would no longer be used as dumping ground to dispose hazardous waste. Nonetheless, due to a rather pragmatic reasoning the Regulation seems to fail to effectively regulate the ship – recycling industry as well. Yet again, the intention of the shipowner to dispose a vessel, which operates worldwide and can sail at any given time, it is not easy to be established or to be proved, basically because a ship can still be seaworthy, able to operate and nonetheless a shipowner balancing with economic criteria could decide to dismantle it. And in reverse, a vessel can be unseaworthy and prima facie could fall within the meaning of a hazardous waste, but the owner could decide to restore any damage and continue to trade on the vessel. In a nutshell, if a shipowner does not disclose his intention to dismantle his vessel, while on European waters, the WSR cannot be applied and therefore, easy to be avoided.

On November 2013, the Union adopted a Regulation (EU) 1257/2013 specialized on ship recycling, partly replacing the WSR and transposing the Hong Kong Convention. The main purpose of the SRR was to *'prevent, reduce, minimize and eliminate accidents, injuries and other adverse effects on human health and the environment caused by ship recycling [...] to enhance safety, [...] the protection of the Union marine environment throughout a ship's life-cycle, in particular to ensure that hazardous waste from such ship recycling is subject to environmentally sound management'*, so as to ensure that recycling is conducted in a 'green' manner, to restrict or prohibit the use of hazardous materials on ships and to establish a European list of ship - recycling facilities. In a nutshell, the Regulation was indeed an improvement compared to previous international and European legal instruments regulating safe and sound ship – recycling explicitly or the shipment of hazardous wastes, such as vessels destined to be dismantled. Nonetheless, certain weak spots can be identified, such as the undisturbed circumvention through reflagging vessels under EU flags to non – EU flags. In addition to that, the Regulation lacks international enforcement and uniformity, in order to achieve consistent international ship – recycling

conditions and practices, which would be the most effective approach to regulate the shipbreaking industry, rather than regional regulations.

As a concluding remark, it is this author's opinion that despite any deficiencies or lacunae within the provisions of both international and European legal frameworks, reality has shown, through case law and especially through recent case law (for example The District Court of Rotterdam, [the SeaTrade case] and the Gulating Lagmannsrett (Appeal Cour), [the Eide/Tide/Harrier case]), that after the pressure that NGO's and particularly the Shipbreaking Platform, shipowners held accountable for illegal movement of hazardous wastes and even were sentenced to prison. Last but not least, the SBM case<sup>375</sup> (Dutch company SBM Offshore, owner of the infamous YETAGUN, which was shipped to India, Alang to be dismantled) proved that shipowners voluntarily frame safe and sustainable ship – recycling as an integral part of their in – house corporate social responsibility policy.

Last but not least and when all is said and done, what truly instigated this paper can be summarized hereinafter. First and foremost, the ship – recycling industry as a distinct sector of maritime business is to be found with a worldwide interest at the moment, especially if one will take into account the wider discussion on the greenhouse gas emissions and the global goal to reduce them, the environmental approach as to replacing the bunkers used in the shipping industry and their notable contribution to environmental pollution. Moreover, it has been observed that there is not a unified international regime concerning ship – recycling ad hoc and therefore the regulatory framework is fragmented. As a result, the initiatives, whether International, European or national, whether successful or not, whether implemented or not, present undoubtedly legal interest. As a matter of fact, the case of the European Union having its own Regulation on ship – recycling, which overall is a good and a strict legal document, shows extreme research interest, despite any legal or practical lacunae. Lastly, one cannot disregard the pending litigations in Holland and England in lawsuits brought by injured or deceased workers' families in ship – recycling facilities, mainly in Bangladesh. It is only natural and logical and comes without any shred of doubt that the solution to all of the tremendous and negative adverse effects on human health, occupational safety and environmental degradation, deriving from practices mainly used worldwide in shipbreaking sites and the actual elimination of legal and practical lacunae will actually come from a strong International unified legal framework on ship – recycling.

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<sup>375</sup> See more on the case on <https://shipbreakingplatform.org/sbm-toxic-tanker/>



The present dissertation could not but conclude the way it commenced

*[...] If you can force your heart and nerve and sinew  
To serve your turn long after they are gone  
And so, hold on when there is nothing in you  
Except the will which says to them 'Hold on!'*

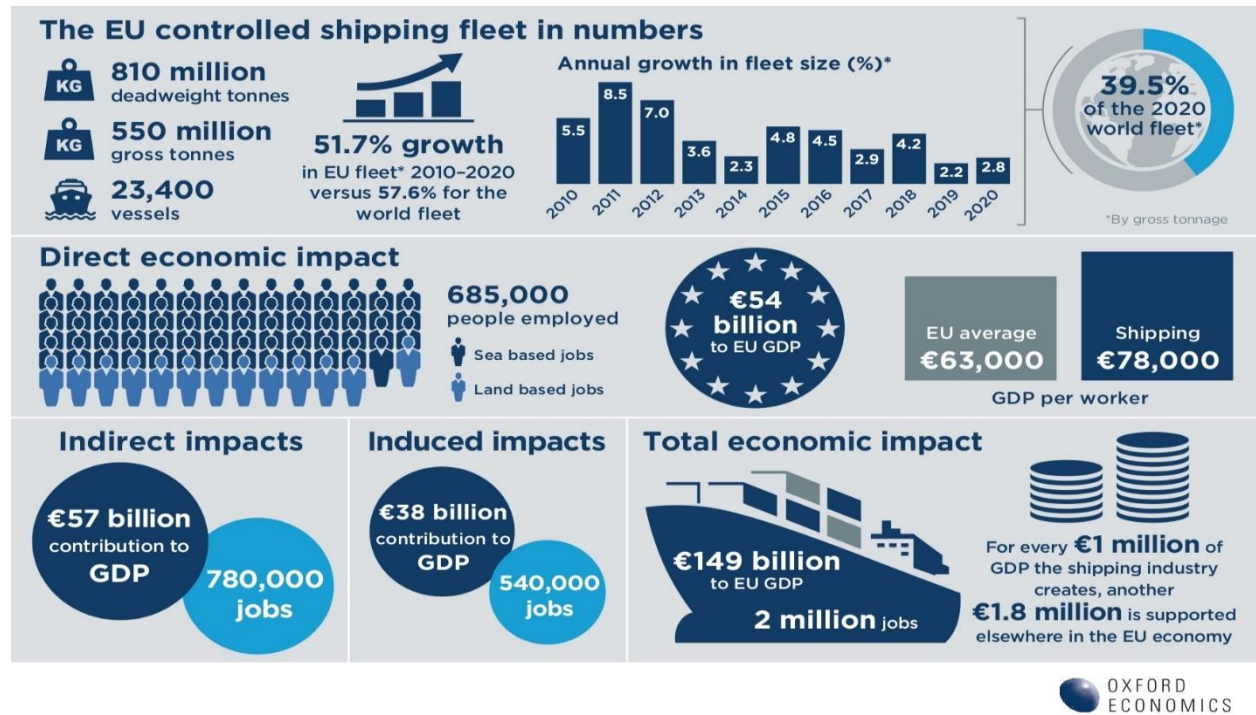
*'If' by Rudyard Kipling*

# APPENDICES

## APPENDIX 1

### The economic value of the EU shipping industry in 2020

#### The economic value of the EU shipping industry in 2020

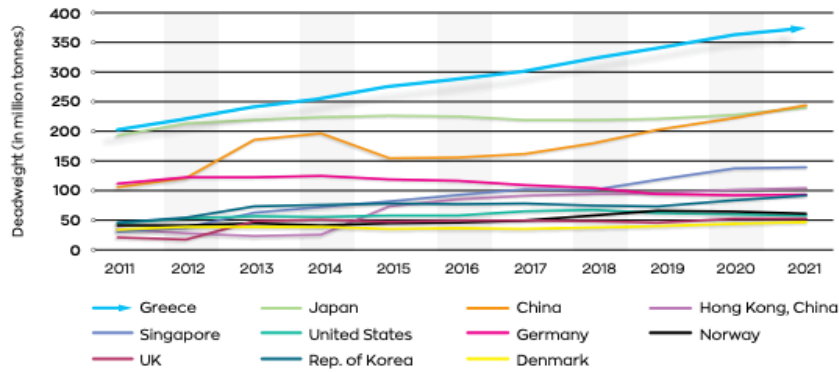


source; *The economic value of the EU Shipping Industry*, Oxford Economics Infographics, European Community Shipowners' Associations (ECSA), 2020, [https://www.ecsa.eu/sites/default/files/publications/ECSA\\_shipping\\_infographic\\_2020.pdf](https://www.ecsa.eu/sites/default/files/publications/ECSA_shipping_infographic_2020.pdf)

## APPENDIX 2

### Ownership of the world fleet (2011-2021)

**FIGURE 1**  
**Ownership of the World Fleet (2011-2021)**  
 (in dwt, ships > 1,000 gt)



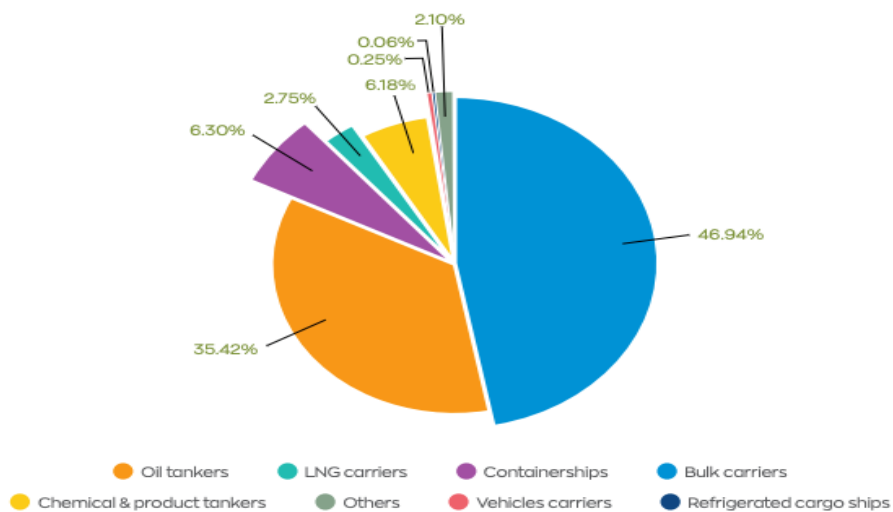
Source: UNCTAD, *Review of Maritime Transport, 2011-2021*

source; UNCTAD, *Review of Maritime Transport, 2011-2021 at UGS Annual Report 2021-2022*

## APPENDIX 3

### Ship type analysis of the Greek-owned fleet

**FIGURE 2**  
**Ship Type Analysis of the Greek-owned Fleet**  
 (in dwt, ships > 1,000 gt)

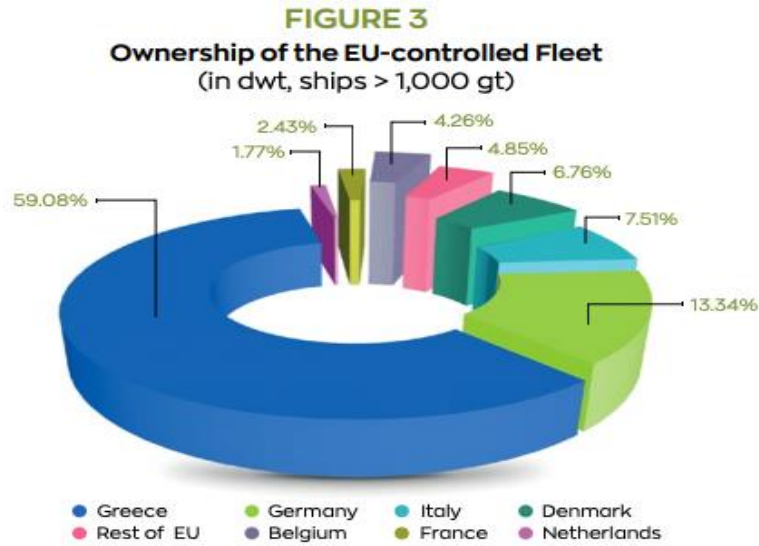


Source: UGS calculations, based on data from IHS Global Limited, March 2022

source; UGS calculations, based on data from IHS Global Limited, March 2022 at UGS Annual Report 2021-2022

## APPENDIX 4

### Ownership of the EU-controlled fleet

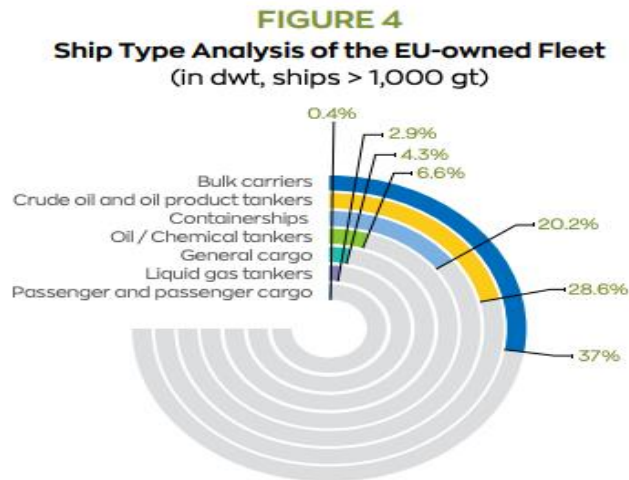


Source: European Commission, *EU Transport in Figures, Statistical Pocketbook 2021*

source; European Commission, *EU Transport in Figures, Statistical Pocketbook, 2021 at UGS Annual Report 2021-2022*

## APPENDIX 5

### Ship type analysis of the EU-owned fleet

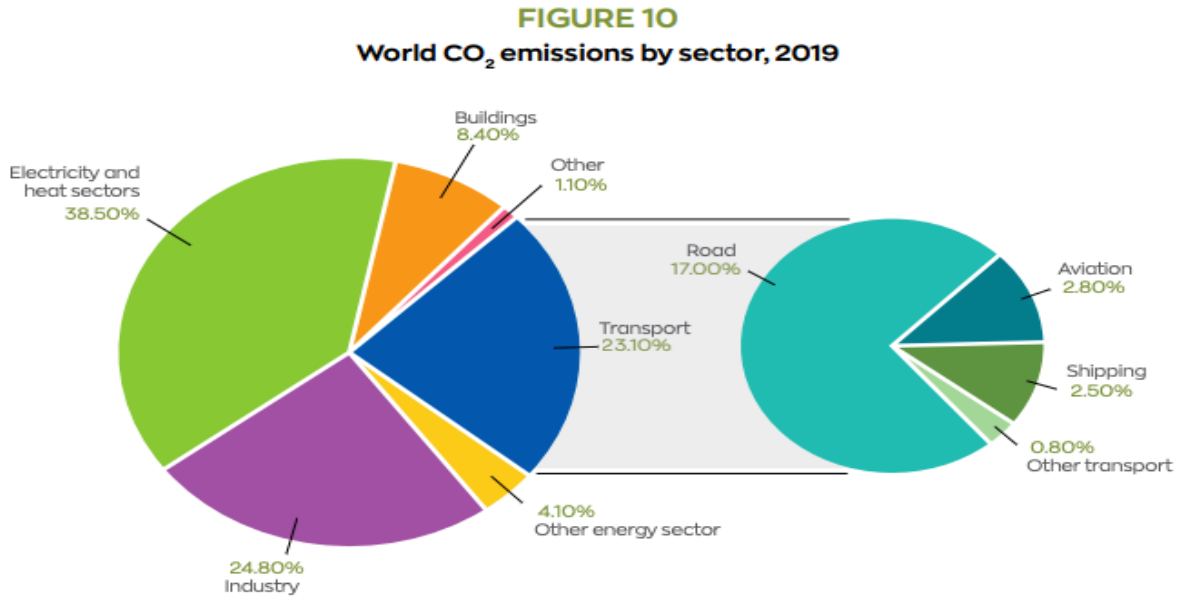


Source: European Commission, *EU Transport in Figures, Statistical Pocketbook 2021*

source; European Commission, *EU Transport in Figures, Statistical Pocketbook, 2021 at UGS Annual Report 2021-2022*

## APPENDIX 6

### World CO<sub>2</sub> emissions by sector, 2019



Source: International Energy Agency, *Net Zero Emissions by 2050 Scenario Data*, 2021

source; International Energy Agency, *Net Zero Emissions by 2060 Scenario Data*, 2021 at UGS Annual Report 2021-2022

## APPENDIX 7

### Injuries and fatalities on East Asian shipbreaking facilities, 2009-2022

EAST ASIAN COUNTRIES	INJURIES	DEATHS
BANGLADESH	255	245
INDIA	25	138
PAKISTAN	> 86	53
<b>TOTAL NUMBER 2009-2022</b>	<b>366 injured</b>	<b>436 deaths</b>

source; NGO Shipbreaking Platform, *Report 2022*

# APPENDIX 8

## Form of the International Certificate on Inventory of Hazardous Materials

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### APPENDIX 3

#### FORM OF THE INTERNATIONAL CERTIFICATE ON INVENTORY OF HAZARDOUS MATERIALS

##### INTERNATIONAL CERTIFICATE ON INVENTORY OF HAZARDOUS MATERIALS

(Note: This certificate shall be supplemented by Part I of the Inventory of Hazardous Materials)

*(Official seal)*

*(State)*

Issued under the provisions of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (hereinafter referred to as "the Convention") under the authority of the Government of

.....  
*(Name of State)*

by .....  
*(Full designation of the person or organization authorized under the provisions of the Convention)*

#### **Particulars of the Ship**

Name of Ship	
Distinctive number or letters	
Port of Registry	
Gross tonnage	
IMO number	
Name and address of shipowner	
IMO registered owner identification number	
IMO company identification number	
Date of Construction	

***Particulars of Part I of the Inventory of Hazardous Materials***

Part I of the Inventory of Hazardous Materials identification/verification number: .....

Note: Part I of the Inventory of Hazardous Materials, as required by regulation 5 of the Annex to the Convention, is an essential part of the International Certificate on Inventory of Hazardous Materials and must always accompany the International Certificate on Inventory of Hazardous Materials. Part I of the Inventory of Hazardous Materials should be compiled on the basis of the standard format shown in the guidelines developed by the Organization.

THIS IS TO CERTIFY:

1. that the ship has been surveyed in accordance with regulation 10 of the Annex to the Convention; and
2. that the survey shows that Part I of the Inventory of Hazardous Materials fully complies with the applicable requirements of the Convention.

Completion date of survey on which this certificate is based: ..... (dd/mm/yyyy)

This certificate is valid until ..... (dd/mm/yyyy)

Issued at .....  
*(Place of issue of certificate)*

(dd/mm/yyyy) .....  
*(Date of issue) (Signature of duly authorized official issuing the certificate)*

*(Seal or stamp of the authority, as appropriate)*

## APPENDIX 9

### Form of the International Ready for Recycling Certificate

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#### APPENDIX 4

##### FORM OF THE INTERNATIONAL READY FOR RECYCLING CERTIFICATE

##### INTERNATIONAL READY FOR RECYCLING CERTIFICATE

(Note: This certificate shall be supplemented by the Inventory of Hazardous Materials and the Ship Recycling Plan)

*(Official seal)*

*(State)*

Issued under the provisions of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (hereinafter referred to as "the Convention") under the authority of the Government of

.....  
*(Name of State)*

by .....  
*(Full designation of the person or organization authorized under the provisions of the Convention)*

##### ***Particulars of the Ship***

Name of Ship	
Distinctive number or letters	
Port of Registry	
Gross tonnage	
IMO number	
Name and address of shipowner	
IMO registered owner identification number	
IMO company identification number	
Date of Construction	



**Particulars of the Ship Recycling Facility(ies)**

Name of Ship Recycling Facility	
Distinctive Recycling Company identity number*	
Full address	
Date of expiry of DASR	

\* This number is based on the Document of Authorization to conduct Ship Recycling (DASR).

**Particulars of the Inventory of Hazardous Materials**

Inventory of Hazardous Materials identification/verification number: .....

Note: The Inventory of Hazardous Materials, as required by regulation 5 of the Annex to the Convention, is an essential part of the International Ready for Recycling Certificate and must always accompany the International Ready for Recycling Certificate. The Inventory of Hazardous Materials should be compiled on the basis of the standard format shown in the guidelines developed by the Organization.

**Particulars of the Ship Recycling Plan**

Ship Recycling Plan identification/verification number: .....

Note: The Ship Recycling Plan, as required by regulation 9 of the Annex to the Convention, is an essential part of the International Ready for Recycling Certificate and must always accompany the International Ready for Recycling Certificate.

**THIS IS TO CERTIFY:**

- 1 that the ship has been surveyed in accordance with regulation 10 of the Annex to the Convention;
- 2 that the ship has a valid Inventory of Hazardous Materials in accordance with regulation 5 of the Annex to the Convention;
- 3 that the Ship Recycling Plan, as required by regulation 9, properly reflects the information contained in the Inventory of Hazardous Materials as required by regulation 5.4 and contains information concerning the establishment, maintenance and monitoring of Safe-for-entry and Safe-for-hot work conditions; and
- 4 that the Ship Recycling Facility(ies) where this ship is to be recycled holds a valid authorization in accordance with the Convention.

This certificate is valid until (dd/mm/yyyy) .....  
(Date)

Issued at .....  
(Place of issue of certificate)

(dd/mm/yyyy) .....  
(Date of issue) (Signature of duly authorized official issuing the certificate)

(Seal or stamp of the authority, as appropriate)

source; Appendix 4 Hong Kong Convention, 2009

# APPENDIX 10

## Notification document for transboundary movements/shipments of waste

12.7.2006

EN

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### ANNEX IA

Notification document for transboundary movements/shipments of waste EU

<p><b>1. Exporter - notifier</b></p> <p>Registration No:</p> <p>Name:</p> <p>Address:</p> <p>Contact person:</p> <p>Tel.: Fax:</p> <p>E-mail:</p>	<p><b>3. Notification:</b></p> <p><b>Notification concerning</b></p> <p>A. (i) Individual shipment: <input type="checkbox"/></p> <p>(ii) Multiple shipments: <input type="checkbox"/></p> <p>B. (i) Disposal (*): <input type="checkbox"/></p> <p>(ii) Recovery: <input type="checkbox"/></p> <p>C. Pre-consented recovery facility (*, **) Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>2. Importer - consignee</b></p> <p>Registration No:</p> <p>Name:</p> <p>Address:</p> <p>Contact person:</p> <p>Tel.: Fax:</p> <p>E-mail:</p>	<p><b>4. Total intended number of shipments:</b></p> <p><b>5. Total intended quantity (kg/litre) (*):</b></p> <p><b>6. Intended period of time for shipment(s) (*):</b></p> <p>First departure: Last departure:</p> <p><b>7. Packaging type(s) (*):</b></p> <p><b>Special handling requirements (*):</b> Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><b>11. Disposal/recovery operation(s) (*):</b></p> <p>D code/R code (*):</p> <p>Technology employed (*):</p> <p>Reason for export (*, **):</p>
<p><b>8. Intended carrier(s)</b></p> <p>Registration No:</p> <p>Name (*):</p> <p>Address:</p> <p>Contact person:</p> <p>Tel.: Fax:</p> <p>E-mail:</p> <p>Means of transport (*):</p>	<p><b>12. Designation and composition of the waste (*):</b></p>
<p><b>9. Waste generator(s)/producer(s) (*, **, *)</b></p> <p>Registration No:</p> <p>Name:</p> <p>Address:</p> <p>Contact person:</p> <p>Tel.: Fax:</p> <p>E-mail:</p> <p>Site and process of generation (*):</p>	<p><b>13. Physical characteristics (*):</b></p>
<p><b>10. Disposal facility (*):</b> <input type="checkbox"/> <b>or recovery facility (*):</b> <input type="checkbox"/></p> <p>Registration No:</p> <p>Name:</p> <p>Address:</p> <p>Contact person:</p> <p>Tel.: Fax:</p> <p>E-mail:</p> <p>Actual site of disposal/recovery:</p>	<p><b>14. Waste identification (fill in relevant codes)</b></p> <p>(i) Basel Annex VIII (or IX if applicable):</p> <p>(ii) OECD code (if different from (i)):</p> <p>(iii) EC list of wastes:</p> <p>(iv) National code in country of export:</p> <p>(v) National code in country of import:</p> <p>(vi) Other (specify):</p> <p>(vii) Y-code:</p> <p>(viii) H-code (*):</p> <p>(ix) UN class (*):</p> <p>(x) UN number:</p> <p>(xi) UN shipping name:</p> <p>(xii) Customs code(s) (HS):</p>

<b>15. Countries/States concerned</b> (a), code No of competent authorities where applicable (b), specific points of exit or entry (c)			
State of export/dispatch	State(s) of transit (entry and exit)		State of import/destination
(a)			
(b)			
(c)			
<b>16. Customs offices of entry and/or exit and/or export</b> (European Community):			
Entry:	Exit:	Export:	
<b>17. Exporter's/notifier's - generator's/producer's (*) declaration:</b>			<b>18. Number of annexes attached:</b>
I certify that the information is complete and correct to my best knowledge.			
I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement:			
Exporter's/notifier's name:	Signature	Date	
Generator's/producer's name:	Signature	Date	
<b>FOR USE BY COMPETENT AUTHORITIES</b>			
<b>19. Acknowledgement from the relevant competent authority of countries of import - destination/transit (*) / export - dispatch (*):</b>		<b>20. Written consent (*) to the movement provided by the competent authority of (country):</b>	
Country:		Consent given on:	
Notification received on:		Consent valid from:	
Acknowledgement sent on:		Specific conditions: No <input type="checkbox"/> If Yes, see block 21 (*) <input type="checkbox"/>	
Name of competent authority:		Name of competent authority:	
Stamp and/or signature:		Stamp and/or signature:	
<b>21. Specific conditions on consenting to the movement or reasons for objecting:</b>			

(\*) Required by the Basel Convention.

(\*\*) In the case of an R12/R13 or D13-D15 operation, also attach corresponding information on the subsequent R1-R11 or D1-D12 facility(ies) when required.

(\*\*\*) To be completed for movements within the OECD area and only if B(ii) applies.

(\*\*\*) Attach detailed list if multiple shipments.

(\*) See list of abbreviations and codes on the next page.

(\*\*) Attach details if necessary.

(\*\*\*) Attach list if more than one.

(\*) If required by national legislation.

(\*) If applicable under the OECD Decision.

**List of abbreviations and codes used in the notification document****DISPOSAL OPERATIONS (block 11)**

- D 1 Deposit into or onto land (e.g. landfill, etc.)
- D2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)
- D3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
- D4 Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds or lagoons, etc.)
- D5 Specially engineered landfill, (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- D6 Release into a water body except seas/oceans
- D7 Release into seas/oceans including sea-bed insertion
- D8 Biological treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list
- D9 Physico-chemical treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list (e.g. evaporation, drying, calcination, etc.)
- D10 Incineration on land
- D11 Incineration at sea
- D12 Permanent storage (e.g. emplacement of containers in a mine, etc.)
- D13 Blending or mixing prior to submission to any of the operations in this list
- D14 Repackaging prior to submission to any of the operations in this list
- D15 Storage pending any of the operations numbered in this list

**RECOVERY OPERATIONS (block 11)**

- R1 Use as a fuel (other than in direct incineration) or other means to generate energy/use principally as a fuel or other means to generate energy
- R2 Solvent reclamation/regeneration
- R3 Recycling/reclamation of organic substances which are not used as solvents
- R4 Recycling/reclamation of metals and metal compounds
- R5 Recycling/reclamation of other inorganic materials
- R6 Regeneration of acids or bases
- R7 Recovery of components used for pollution abatement
- R8 Recovery of components from catalysts
- R9 Used oil re-refining or other reuses of previously used oil
- R10 Land treatment resulting in benefit to agriculture or ecological improvement
- R11 Uses of residual materials obtained from any of the operations numbered R1 to R10
- R12 Exchange of wastes for submission to any of the operations numbered R1 to R11
- R13 Accumulation of material intended for any operation in this list.

PACKAGING TYPES (block 7)	H CODE AND UN CLASS (block 14)		
1. Drum 2. Wooden barrel 3. Jerrican 4. Box 5. Bag 6. Composite packaging 7. Pressure receptacle 8. Bulk 9. Other (specify)	UN Class	H code	Characteristics
<b>MEANS OF TRANSPORT (block 8)</b> R = Road T = Train/rail S = Sea A = Air W = Inland waterways	1	H1	Explosive
<b>PHYSICAL CHARACTERISTICS (block 13)</b> 1. Powdery/powder 2. Solid 3. Viscous/paste 4. Sludgy 5. Liquid 6. Gaseous 7. Other (specify)	3	H3	Flammable liquids
	4.1	H4.1	Flammable solids
	4.2	H4.2	Substances or wastes liable to spontaneous combustion
	4.3	H4.3	Substances or wastes which, in contact with water, emit flammable gases
	5.1	H5.1	Oxidising
	5.2	H5.2	Organic peroxides
	6.1	H6.1	Poisonous (acute)
	6.2	H6.2	Infectious substances
	8	H8	Corrosives
	9	H10	Liberation of toxic gases in contact with air or water
	9	H11	Toxic (delayed or chronic)
	9	H12	Ecotoxic
	9	H13	Capable, by any means, after disposal of yielding another material, e.g. leachate, which possesses any of the characteristics listed above

Further information, in particular related to waste identification (block 14), i.e. on Basel Annexes VIII and IX codes, OECD codes and Y codes, can be found in a Guidance/Instruction Manual available from the OECD and the Secretariat of the Basel Convention.

source; Annex IA Regulation (EC) No 1013/2006 on shipments of waste

# APPENDIX 11

## Movement document for transboundary movements/shipments of EU waste

12.7.2006

EN

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ANNEX IB

Movement document for transboundary movements/shipments of EU waste		EU
<b>1. Corresponding to notification No:</b>		<b>2. Serial/total number of shipments:</b>
<b>3. Exporter - notifier</b> Registration No: Name: Address: Contact person: Tel.: Fax: E-mail:		<b>4. Importer - consignee</b> Registration No: Name: Address: Contact person: Tel.: Fax: E-mail:
<b>5. Actual quantity:</b> kg: litre:		<b>6. Actual date of shipment:</b>
<b>7. Packaging</b> type(s) (1): Number of packages: Special handling requirements: (2) Yes <input type="checkbox"/> No <input type="checkbox"/>		
<b>8 (a) 1st carrier (3):</b> Registration No: Name: Address: Tel.: Fax: E-mail:	<b>8 b) 2nd carrier:</b> Registration No: Name: Address: Tel.: Fax: E-mail:	<b>8 c) Last carrier:</b> Registration No: Name: Address: Tel.: Fax: E-mail:
----- To be completed by carrier's representative -----		
Means of transport (1): Date of transfer: Signature:		Means of transport (1): Date of transfer: Signature:
<b>9. Waste generator(s)/producer(s) (4;5;6):</b> Registration No: Name: Address: Contact person: Tel.: Fax: E-mail: Site of generation (2):		<b>12. Designation and composition of the waste (2):</b>
<b>10. Disposal facility</b> <input type="checkbox"/> <b>or recovery facility</b> <input type="checkbox"/>		<b>13. Physical characteristics (1):</b>
Registration No: Name: Address: Contact person: Tel.: Fax: E-mail: Actual site of disposal/recovery (2)		<b>14. Waste identification (fill in relevant codes)</b> (i) Basel Annex VIII (or IX if applicable): (ii) OECD code (if different from (i)): (iii) EC list of wastes: (iv) National code in country of export: (v) National code in country of import: (vi) Other (specify): (vii) Y code: (viii) H code (1): (ix) UN class (1): (x) UN number: (xi) UN shipping name: (xii) Customs code(s) (HS):
<b>11. Disposal/recovery operation(s)</b> D code/R code (1):		

<p><b>15. Exporter's - notifier's/generator's/producer's (4) declaration:</b></p> <p>I certify that the above information is complete and correct to my best knowledge. I also certify that legally enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantee is in force covering the transboundary movement and that all necessary consents have been received from the competent authorities of the countries concerned.</p> <p>Name: _____ Signature: _____</p> <p>Date: _____</p>	
<p><b>16. For use by any person involved in the transboundary movement in case additional information is required:</b></p>	
<p><b>TO BE COMPLETED BY DISPOSAL /RECOVERY FACILITY</b></p>	
<p><b>17. Shipment received at disposal facility</b> <input type="checkbox"/></p> <p>Date of reception: _____ Accepted: <input type="checkbox"/></p> <p>Quantity received:   kg:                    litre:                                    * <i>immediately contact competent authorities</i></p> <p>Approximate date of disposal/recovery: _____</p> <p>Disposal/recovery operation (1): _____</p> <p>Date: _____</p> <p>Name: _____</p> <p>Signature: _____</p>	<p><b>or recovery facility</b> <input type="checkbox"/></p> <p>Rejected*: <input type="checkbox"/></p> <p><b>18. I certify that the disposal/recovery of the waste described above has been completed.</b></p> <p>Date: _____</p> <p>Name: _____</p> <p>Signature and stamp: _____</p>
<p>(1) See list of abbreviations and codes on the next page.</p> <p>(2) Attach details if necessary.</p> <p>(3) If more than three carriers, attach information as required in blocks 8 (a,b,c).</p>	<p>(4) Required by the Basel Convention.</p> <p>(5) Attach list if more than one.</p> <p>(6) If required by national legislation.</p>



FOR USE BY CUSTOMS OFFICES (if required by national legislation)			
<b>19. COUNTRY OF EXPORT - DISPATCH OR CUSTOMS OFFICE OF EXIT</b>		<b>20. COUNTRY OF IMPORT - DESTINATION OR CUSTOMS OFFICE OF ENTRY</b>	
The waste described in this movement document left the country on:		The waste described in this movement document entered the country on:	
Signature:		Signature:	
Stamp:		Stamp:	
21. STAMPS OF CUSTOMS OFFICES OF TRANSIT COUNTRIES			
Name of country:		Name of country:	
Entry:	Exit:	Entry:	Exit:
Name of country:		Name of country:	
Entry:	Exit:	Entry:	Exit:

**List of abbreviations and codes used in the movement document**

<b>DISPOSAL OPERATIONS (block 11)</b>	<b>Recovery operations (block 11)</b>
D 1 Deposit into or onto land (e.g. landfill, etc.)	R 1 Use as a fuel (other than in direct incineration) or other means to generate energy/Use principally as a fuel or other means to generate energy
D 2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc.)	R 2 Solvent reclamation/regeneration
D 3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)	R 3 Recycling/reclamation of organic substances which are not used as solvents
D 4 Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds or lagoons, etc.)	R 4 Recycling/reclamation of metals and metal compounds
D 5 Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment)	R 5 Recycling/reclamation of other inorganic materials
D 6 Release into a water body except seas/oceans	R 6 Regeneration of acids or bases
D 7 Release into seas/oceans including sea-bed insertion	R 7 Recovery of components used for pollution abatement
D 8 Biological treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list	R 8 Recovery of components from catalysts
D 9 Physico-chemical treatment not specified elsewhere in this list which results in final compounds or mixtures which are discarded by means of any of the operations in this list (e.g. evaporation, drying, calcination)	R 9 Used oil re-refining or other reuses of previously used oil
D 10 Incineration on land	R 10 Land treatment resulting in benefit to agriculture or ecological improvement
D 11 Incineration at sea	R 11 Uses of residual materials obtained from any of the operations numbered R 1 to R 10
D 12 Permanent storage (e.g. emplacement of containers in a mine, etc.)	R 12 Exchange of wastes for submission to any of the operations numbered R 1 to R 11
D 13 Blending or mixing prior to submission to any of the operations in this list	R 13 Accumulation of material intended for any operation in this list
D 14 Repackaging prior to submission to any of the operations in this list	
D 15 Storage pending any of the operations in this list	

<b>PACKAGING TYPES (block 7)</b>	<b>H CODE AND UN CLASS (block 14)</b>		
1. Drum	UN Class	H code	Characteristics
2. Wooden barrel	1	H1	Explosive
3. Jerrican	3	H3	Flammable liquids
4. Box	4.1	H4.1	Flammable solids
5. Bag	4.2	H4.2	Substances or wastes liable to spontaneous combustion
6. Composite packaging	4.3	H4.3	Substances or wastes which, in contact with water, emit flammable gases
7. Pressure receptacle			
8. Bulk	5.1	H5.1	Oxidising
9. Other (specify)	5.2	H5.2	Organic peroxides
	6.1	H6.1	Poisonous (acute)
	6.2	H6.2	Infectious substances
	8	H8	Corrosives
	9	H10	Liberation of toxic gases in contact with air or water
	9	H11	Toxic (delayed or chronic)
	9	H12	Ecotoxic
	9	H13	Capable, by any means, after disposal of yielding another material, e.g. leachate, which possesses any of the characteristics listed above
<b>MEANS OF TRANSPORT (block 8)</b>			
R = road			T = train/rail
S = sea			A = air
W = inland waterways			
<b>PHYSICAL CHARACTERISTICS (block 13)</b>			
1. Powdery/powder			
2. Solid			
3. Viscous/paste			
4. Sludgy			
5. Liquid			
6. Gaseous			
7. Other (specify)			

Further information, in particular related to waste identification (block 14), i.e. on Basel Annexes VIII and IX codes, OECD codes and Y codes, can be found in a Guidance/Instruction Manual available from the OECD and the Secretariat of the Basel Convention.

source; Annex IB Regulation (EC) No 1013/2006 on shipments of waste

## APPENDIX 12

### BIMCO RECYCLON, Standard contract for the sale of vessels for green recycling



# RECYCLECON

STANDARD CONTRACT FOR THE SALE OF VESSELS  
FOR GREEN RECYCLING PART I

1. Place and Date of Contract (Cl. 1):		
2. Sellers/Place of business (state full style and address) (Cl. 1)	3. Buyers/Place of business (state full style and address) (Cl. 1)	4. Ship Recycling Facility (state full style and address) (Cl. 1)
5. Name of Vessel (Cl. 1, 6(b))	6. Type of Vessel (Cl. 1, 6(b))	7. Year and place built (Cl. 1, 6(b))
8. Flag (Cl. 1, 6(b))	9. Place of registry (Cl. 1, 6(b))	10. IMO number (Cl. 1, 6(b))
11. Light Displacement Tonnage (state metric or long tons) (Cl. 1, 8(a)) (a) Lightweight (b) Deductions (c) Contractual Weight ((a)-(b))	12. Purchase Price in figures and letters (state both lump sum price and the equivalent price per ton Contractual Weight)(Cl. 3) (a) Lump sum price (b) Equivalent price per ton Contractual Weight	
13. Deposit (Cl. 4, 5) (a) State percentage of purchase price (b) State name and place of bank to which the deposit shall be paid	14. Sellers' bank (state name and place and bank account details to which the balance of the purchase price shall be paid) (Cl. 4, 5)	
15. Place of closing (Cl. 1, 6)	16. Place of Delivery (Cl. 1, 2, 9(a))	
17. Earliest date of delivery (Cl. 10(a))	18. Cancelling date (Cl. 10(a))	
19. Post-delivery assistance (Cl. 11) (a) State number of days: (b) State daily cost:	20. Dispute Resolution (state 22(a), 22(b) or 22(c)); if 22(c) agreed place of arbitration must be stated)(Cl. 22)	
21. Notices to Sellers (state contact details) (Cl. 24(b))	22. Notices to Buyers (state contact details) (Cl. 24(b))	
23. Numbers of additional clauses covering special provisions, if agreed		

It is mutually agreed between the party named in Box 2 and the party named in Box 3 that this Contract consisting of PART I including additional clauses, if any agreed and stated in Box 23, and PART II as well as Annexes "A" (Vessel Details), "B" (Excluded Items) and "C" (Statement of Completion) attached hereto, shall be performed subject to the conditions contained herein. In the event of a conflict of conditions, the provisions of PART I and Annexes "A", "B" and "C" shall prevail over those of PART II to the extent of such conflict but no further.

Signature (Sellers)	Signature (Buyers)
---------------------	--------------------

**PART II**  
**RECYCLECON Standard Contract for the Sale of Vessels for Green Recycling**

**Preamble**

The party stated in Box 2 (hereinafter “the Sellers”) has agreed to sell and the party stated in Box 3 (hereinafter “the Buyers”) has agreed to buy the Vessel named in Box 5 on the following terms and conditions which, in particular, include an undertaking to recycle the Vessel in a safe and environmentally sound manner consistent with international and national law and relevant guidelines.

**1. Definitions**

“Banking Days” are days on which banks are open both in the country of the currency stipulated for the purchase price in Clause 3 (Purchase Price) and at the place of closing stated in Box 15.

“Buyers” means the party stated in Box 3.

“Contractual Weight” means the LDT less the Deductions stated in Box 11.

“Deductions” means the permanent ballast and other weight deductions stated in Box 11.

“IMO” means the International Maritime Organization.

“Inventory of Hazardous Materials” means a list of hazardous materials (as defined in Appendix 1 of the IMO 2011 Guidelines for the Development of the Inventory of Hazardous Materials (Resolution MEPC.197 (62)) or any subsequent amendment thereto) in the Vessel’s structure and equipment, in operational wastes and stores on board the Vessel, including the location and weight of such materials.

“LDT” means the light displacement tonnage in tons stated in Box 11. (Box 11 to state whether metric or imperial measurement apply).

“Place of Delivery” means the place stated in Box 16.

“Recycling” means the activity of complete or partial dismantling of ships at the Ship Recycling Facility in order to recover components and materials for reprocessing and re-use, whilst taking care of hazardous and other materials, and includes associated operations such as storage and treatment of components and materials on site, but not their further processing or disposal in separate facilities.

“Sellers” means the party stated in Box 2.

“Ship Recycling Facility Plan” means a technical, operational and management plan for the safe and environmentally sound operation of the Ship Recycling Facility (as defined in the relevant guidelines to be developed by the IMO).

“Ship Recycling Facility” means a defined area that is an authorised site, yard or facility, as identified in Box 4, used for Recycling and that is designed, constructed, and operated in a safe and environmentally sound manner.

“Ship Recycling Plan” means a technical and operational plan for the safe and environmentally sound Recycling of the Vessel and also including how the type and amount of materials identified in the Inventory of Hazardous Materials will be managed and disposed of (as defined in the IMO 2011 Guidelines for the Development of the Ship Recycling Plan (Resolution MEPC.196 (62)) or any subsequent amendment thereto).

“Statement of Completion” means a written confirmation issued by the Ship Recycling Facility in the form as set out in Annex C (Statement of Completion).

“Vessel” means the vessel named in Box 5 details of which are set out in Boxes 6 to 11 and Annex A (Vessel Details) attached hereto.

**PART II**  
**RECYCLECON Standard Contract for the Sale of Vessels for Green Recycling**

**2. Outright Sale**

The Vessel has been accepted by the Buyers and the sale is outright and definite subject only to the terms and conditions of this Contract. The Sellers shall not be held liable for any representations, errors, omissions and/or overall condition of the Vessel upon arrival at the Place of Delivery stated in Box 16 except for the items specified in PART I and Annex A (Vessel Details).

**3. Purchase Price**

The purchase price is the sum stated in Box 12 payable in United States Dollars based on the Contractual Weight.

**4. Deposit**

- (a) As a security for the due fulfilment of this Contract, the Buyers shall lodge a deposit free of bank charges as stated in Box 13 to be placed with the bank stated in Box 14 in the joint names of the Sellers and the Buyers.
- (b) Such deposit shall be made latest within five (5) Banking Days after the date of signing this Contract.
- (c) Interest, if any, on such deposit shall be credited to the Buyers.
- (d) Any fees or charges for establishing and holding such deposit shall be borne equally by the Sellers and the Buyers.

**5. Payment**

The Buyers shall release the deposit stated in Box 13 to the Sellers and shall pay the balance of the said purchase price in full free of bank charges to the Sellers' bank stated in Box 14 on delivery of the Vessel, but not later than three (3) Banking Days from the time the Sellers have tendered or retendered (as the case may be) notice of readiness for delivery in accordance with Clause 8 (Notice of Readiness for Delivery).

**6. Documentation**

In exchange for the payment of the purchase price the Sellers shall furnish the Buyers with the following documents at the place of closing stated in Box 15, which shall be in English or with a certified English translation if in a language other than English:

- (a) legal bill of sale transferring title of the Vessel and stating that the said Vessel is free from all encumbrances and maritime liens or any other debts whatsoever, notarially attested, legalised or apostilled as appropriate by the Consul or other competent authority;
- (b) three (3) commercial invoices signed by the Sellers, stating the purchase price of the Vessel and her particulars as stated in Boxes 5-10 and Annex A (Vessel Details) as applicable;
- (c) a certificate or transcript of registry evidencing the ownership of the Vessel on the date of delivery and that the Vessel is free from registered encumbrances and mortgages. Such certificate or transcript of registry shall be dated not earlier than five (5) days prior to Sellers tendering notice of readiness for delivery;
- (d) a written undertaking from the Sellers to apply for and supply to the Buyers a certificate of deletion or closed transcript of registry latest thirty (30) days after delivery of the Vessel;
- (e) a written undertaking by the Sellers to instruct the Master or their agents to promptly release and physically deliver the Vessel to the Buyers;
- (f) the corporate authority of the Sellers according to which they decide the sale of the Vessel and a copy of the power of attorney authorizing the signature of the bill of sale; both documents to be notarially attested, legalised or apostilled as appropriate by the Consul or other competent authority;

**PART II**  
**RECYCLECON Standard Contract for the Sale of Vessels for Green Recycling**

- (g) a declaration according to which the Sellers guarantee that at the time of delivery the Vessel is free from all encumbrances and maritime liens or any other debts whatsoever;
- (h) an incumbency certificate or other corporate document listing the directors of the Sellers; and
- (i) power of attorney of the Buyers appointing one or more representatives to act on behalf of the Buyers in the performance of this Agreement, duly notari ally attested and legalised or (as appropriate) apostilled.

At the time of delivery the Buyers and the Sellers shall sign a protocol of delivery and acceptance confirming the date and time of delivery of the Vessel. As soon as the full purchase price has been irrevocably credited to the Sellers' bank account stated in Box 14 the Sellers shall confirm in writing to the Buyers receipt of the full purchase price.

The Sellers shall make available to the Buyers copies, samples or drafts (as the case may be) of the documents listed in sub-clauses 6(a) to 6(i) within a reasonable time after the signing of this Contract, but no later than three (3) days prior to the date of the Sellers tendering notice of readiness for delivery.

**7. Advance Notices of Arrival**

The Sellers shall give to the Buyers fifteen (15), ten (10), seven (7), and three (3) days' notice of the expected time of arrival of the Vessel at the Place of Delivery.

**8. Notice of Readiness for Delivery**

When the Vessel is physically ready for delivery, the Sellers shall give to the Buyers a written notice of readiness for delivery. The notice of readiness shall be tendered during normal office hours at the Place of Delivery and, unless otherwise specifically provided elsewhere in this Contract, be accompanied by the following documents to the extent necessary:

- (a) a certificate issued by a local marine surveyor confirming the LDT of the Vessel as per the original of the valid trim and stability booklet on board the Vessel, which has been sighted;
- (b) a valid certificate issued by the relevant authorities on arrival at the Place of Delivery specifying that all the Vessel's cargo tanks, pump rooms and cofferdams are safe for entry and safe for hot work;
- (c) a letter from the Sellers' local agents at the Place of Delivery stating that there are no pending dues against the Vessel at the time of delivery; and
- (d) a letter signed and stamped by the Master stating that neither he nor the crew have any outstanding claims against the Vessel.

The Buyers shall either accept or reject the Notice of Readiness within one (1) Banking Day, failing which it shall be deemed accepted. A rejection of the Notice of Readiness shall be reasoned. In the event of a rejection, the Sellers may either maintain the original Notice of Readiness or make proper rectification and retender the Notice of Readiness.

**9. Delivery**

- (a) The Vessel shall be delivered by the Sellers to the Buyers at the Place of Delivery under her own power with main engine and all generators in working condition, safely afloat, substantially intact, free of cargo, with anchors in place, unless otherwise described in Annex A (Vessel Details).
- (b) If, on the Vessel's arrival, the Place of Delivery is inaccessible for any reason whatsoever including but not limited to port congestion, the Vessel shall be delivered and taken over by the Buyers as near thereto as she may safely get at a safe and accessible berth or at a safe anchorage which shall be designated by the Buyers, always provided that such berth or anchorage shall be subject to the approval of the Sellers which shall not be unreasonably withheld. If the Buyers fail to nominate such place within twenty-four (24) hours of arrival, the

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place at which it is customary for vessels to wait shall constitute the Place of Delivery.

- (c) The delivery of the Vessel according to the provisions of sub-clause 9(b) shall constitute a full performance of the Sellers' obligations according to sub-clause 9(a) and all other terms and conditions of this Contract shall apply as if delivery had taken place according to sub-clause 9(a).
- (d) All expenses incurred prior to delivery of the Vessel and all local fees/port disbursements relating to the Vessel, including repatriation of the crew shall be for the Sellers' account while all expenses after delivery of the Vessel, including import duties and other local taxes, if any, shall be for the Buyers' account.
- (e) The Vessel with everything belonging to her shall be at the Sellers' risk and expense until she is delivered to the Buyers.
- (f) The Vessel shall be delivered without any stowaways, contraband or arms and ammunition on board.

**10. Earliest date of Delivery/Cancelling Date**

- (a) The Vessel shall tender notice of readiness for delivery in accordance with Clause 7 (Advance Notices of Arrival) on or after the date stated in Box 17 but latest on the date stated in Box 18 (hereinafter "the Cancelling Date").
- (b) (i) Should the Sellers anticipate that notwithstanding the exercise of due diligence, the Vessel will not be ready for delivery by the Cancelling Date they may notify the Buyers in writing stating the date when they anticipate that the Vessel will be ready for delivery and propose a new date for the Cancelling Date. Upon receipt of such notification the Buyers shall have the option either to cancel the Contract according to Clause 21 (Sellers' Default) within two (2) Banking Days of receipt of such notice or of accepting the new date as the Cancelling Date. If the Buyers have not declared their option within two (2) Banking Days of receipt of the Sellers' notification or, if the Buyers accept the new date, the date proposed by the Sellers shall become the Cancelling Date.  
  
(ii) If this Contract is maintained with the new Cancelling Date, all other terms and conditions hereof shall remain in full force and effect. Cancellation or non-cancellation by the Buyers in accordance with the provisions of sub-clause 10(b)(i) shall be without prejudice to any claim for loss and/or damages the Buyers may have against the Sellers under this Contract.

**11. Post-Delivery Assistance**

Following payment and delivery of the Vessel the Sellers shall assist the Buyers for a period not exceeding the number of days and at the daily cost stated in Box 19 with post delivery operations reasonably requested by the Buyers, provided the Sellers can arrange for crew as appropriate to remain with the Vessel for such period and obtain crew insurance cover. Such cost is payable by the Buyers to the Sellers on receipt of the Seller's invoice.

The Buyers shall assist in the safe disembarkation of the crew.

The Buyers shall indemnify and hold the Sellers harmless from any loss and/or liabilities incurred as a consequence of the post-delivery assistance.

**12. Removals**

- (a) The Vessel shall be delivered with everything belonging to her on board without removals other than statutory certificates, hired equipment and those items stated in Annex B (Excluded Items). The Sellers shall also have the right to take ashore without compensation the following items: crockery, cutlery, linen and other articles bearing the Sellers' flag or name, as well as library, forms, etc., exclusively for use in the Sellers' vessels. Master's, Officers' and crew's personal belongings including slop chest and the Vessel's log book shall be excluded from the sale.
- (b) Unless otherwise agreed, any remaining bunkers, lubricating oils, stores, equipment and spares used or unused

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on board at the time of delivery shall become the Buyers' property without extra payment.

- (c) The Sellers shall, at the time of delivery, hand to the Buyers all plans, specifications and certificates, or copies hereof, as available and whether valid or invalid.
- (d) The Sellers are not required to replace such material, spare parts or stores including spare tail-end shaft(s) and propeller(s), if any, which may be consumed or taken out of spare and used as replacement prior to delivery, but all replaced spares shall be retained on board and shall become the property of the Buyers.

**13. Verification of Light Displacement Tonnage (LDT)**

The Vessel's LDT shall be verified by the Vessel's valid trim and stability booklet, a copy of which shall be made available to the Buyers' representatives prior to the signing of this Contract.

The Sellers shall ensure that the original of the Vessel's trim and stability booklet is on board the Vessel at the time of tendering the notice of readiness in accordance with Clause 7 (Advance Notices of Arrival).

Should the Vessel's trim and stability booklet not be the builders' trim and stability booklet, the Buyers may request the builders' trim and stability booklet and any documentation relating to any subsequent modifications of the LDT, if available.

**14. Charters, Encumbrances, Maritime Liens, Debts and Claims**

The Sellers warrant that the Vessel, at the time of delivery, is free from all charters, encumbrances and maritime liens or any debts whatsoever.

Should any claims, which have been incurred prior to the time of delivery, be made against the Vessel, the Sellers hereby undertake to indemnify the Buyers against all consequences of such claims to the extent it can be proved that the Sellers are responsible for the aforementioned claims.

**15. Charges**

Any taxes, dues, fees and expenses connected with the purchase of the Vessel shall be for the Buyers' account, whereas similar charges connected with the closing of the Sellers' register shall be for the Sellers' account.

**16. Buyers' Representatives**

The Sellers agree to allow the Buyers to place up to three (3) representatives on board the Vessel once the deposit has been lodged in accordance with Clause 4 (Deposit) but not earlier than fifteen (15) days prior to expected delivery.

Whilst on board the Vessel, such representatives shall be at the sole risk, liability and expense of the Buyers and the Buyers shall indemnify the Sellers against any claim for loss and/or damages in this respect. The representatives must not interfere with the operation of the Vessel and they shall sign the Sellers' letter of indemnity prior to their embarkation.

**17. Purpose of Sale**

The Vessel is sold for Recycling only and the Buyers undertake and warrant that the Vessel will be recycled at the Ship Recycling Facility in accordance with the Ship Recycling Facility Plan and the Ship Recycling Plan.

**18. Safe and Environmentally Sound Recycling**

The Buyers shall on the Sellers' request (i) either provide a copy of the Ship Recycling Facility Plan or an attestation that the Ship Recycling Facility has a Ship Recycling Facility Plan and (ii) allow the Sellers to visit the Ship Recycling Facility to review the Ship Recycling Facility Plan and verify that the Ship Recycling Facility is compliant with the Ship Recycling Facility Plan.



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If not already provided, the Sellers shall provide the Buyers with Part I of the Inventory of Hazardous Materials as soon as possible after the date of this Contract.

The Sellers shall provide the Buyers with provisional Parts II and III of the Inventory of Hazardous Materials as soon as possible after the date of this Contract and final Parts II and III upon delivery of the Vessel.

The information contained in the Inventory of Hazardous Materials is given to the best of the Seller's knowledge but always without guarantee.

Following the receipt of Part I and the provisional Parts II and III of the Inventory of Hazardous Materials, the Buyers shall without undue delay provide the Sellers with the Ship Recycling Plan.

The Buyers shall ensure that after delivery the Sellers' representatives are allowed to visit the Ship Recycling Facility to ascertain that the Recycling of the Vessel is being conducted in accordance with the Ship Recycling Facility Plan and the Ship Recycling Plan.

The Buyers shall within two (2) weeks of completion of recycling of the Vessel provide the Sellers with a Statement of Completion as per Annex C (Statement of Completion).

**19. Exemptions**

Neither the Sellers nor the Buyers shall be under any liability if the Vessel should become an actual, constructive or compromised total loss before delivery, or if delivery of the Vessel by the Cancelling Date should otherwise be prevented or delayed due to outbreak of war, restraint of Government, Princes, Rulers or People of any Nation or the United Nations, Act of God, or any other similar cause beyond the Buyers' or the Sellers' control.

**20. Buyers' Default**

Should the deposit not be paid in accordance with the provisions of Clause 4 (Deposit), the Sellers shall have the right to cancel this Contract, and they shall be entitled to claim compensation for their losses and for all expenses incurred.

Should the purchase price not be paid in the manner provided for in this Contract the Sellers shall have the right to cancel the Contract, in which case the amount deposited together with interest earned, if any, shall be forfeited to the Sellers. If the deposit does not cover the Sellers' losses, they shall be entitled to claim further compensation for their losses and for all expenses incurred.

**21. Sellers' Default**

Should the Sellers fail to give notice of readiness in accordance with Clause 7 (Advance Notices of Arrival) or fail to execute a legal transfer or to deliver the Vessel with everything belonging to her by the Cancelling Date, the Buyers shall have the right to cancel the Contract, in which case the deposit in full shall be returned to the Buyers together with interest earned.

Whether or not the Buyers cancel this Contract the Sellers shall make due compensation to the Buyers for any loss and for all expenses incurred by their failure to give notice of readiness, to execute a legal transfer or to deliver the Vessel with everything belonging to her by the Cancelling Date, if such failure is due to the proven negligence of the Sellers.

**22. BIMCO Dispute Resolution Clause**

- (a) This Contract shall be governed by and construed in accordance with English law and any dispute arising out of or in connection with this Contract shall be referred to arbitration in London in accordance with the Arbitration Act 1996 or any statutory modification or re-enactment thereof save to the extent necessary to give effect to the provisions of this Clause.

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The arbitration shall be conducted in accordance with the London Maritime Arbitrators Association (LMAA) Terms current at the time when the arbitration proceedings are commenced.

The reference shall be to three arbitrators. A party wishing to refer a dispute to arbitration shall appoint its arbitrator and send notice of such appointment in writing to the other party requiring the other party to appoint its own arbitrator within 14 calendar days of that notice and stating that it will appoint its arbitrator as sole arbitrator unless the other party appoints its own arbitrator and gives notice that it has done so within the 14 days specified. If the other party does not appoint its own arbitrator and give notice that it has done so within the 14 days specified, the party referring a dispute to arbitration may, without the requirement of any further prior notice to the other party, appoint its arbitrator as sole arbitrator and shall advise the other party accordingly. The award of a sole arbitrator shall be binding on both parties as if he had been appointed by agreement.

Nothing herein shall prevent the parties agreeing in writing to vary these provisions to provide for the appointment of a sole arbitrator.

In cases where neither the claim nor any counterclaim exceeds the sum of USD 50,000 (or such other sum as the parties may agree) the arbitration shall be conducted in accordance with the LMAA Small Claims Procedure current at the time when the arbitration proceedings are commenced.

- (b) This Contract shall be governed by and construed in accordance with Title 9 of the United States Code and the Maritime Law of the United States and any dispute arising out of or in connection with this Contract shall be referred to three persons at New York, one to be appointed by each of the parties hereto, and the third by the two so chosen; their decision or that of any two of them shall be final, and for the purposes of enforcing any award, judgment may be entered on an award by any court of competent jurisdiction. The proceedings shall be conducted in accordance with the rules of the Society of Maritime Arbitrators, Inc.

In cases where neither the claim nor any counterclaim exceeds the sum of USD 50,000 (or such other sum as the parties may agree) the arbitration shall be conducted in accordance with the Shortened Arbitration Procedure of the Society of Maritime Arbitrators, Inc. current at the time when the arbitration proceedings are commenced.

- (c) This Contract shall be governed by and construed in accordance with the laws of the place mutually agreed by the parties and any dispute arising out of or in connection with this Contract shall be referred to arbitration at a mutually agreed place, subject to the procedures applicable there.
- (d) Notwithstanding Sub-clauses 22(a), 22(b) or 22(c) above, the parties may agree at any time to refer to mediation any difference and/or dispute arising out of or in connection with this Contract.

(i) In the case of a dispute in respect of which arbitration has been commenced under Sub-clauses 22(a), 22(b) or 22(c) above, the following shall apply:

(ii) Either party may at any time and from time to time elect to refer the dispute or part of the dispute to mediation by service on the other party of a written notice (the "Mediation Notice") calling on the other party to agree to mediation.

(iii) The other party shall thereupon within 14 calendar days of receipt of the Mediation Notice confirm that they agree to mediation, in which case the parties shall thereafter agree a mediator within a further 14 calendar days, failing which on the application of either party a mediator will be appointed promptly by the Arbitration Tribunal ("the Tribunal") or such person as the Tribunal may designate for that purpose. The mediation shall be conducted in such place and in accordance with such procedure and on such terms as the parties may agree or, in the event of disagreement, as may be set by the mediator.

(iv) If the other party does not agree to mediate, that fact may be brought to the attention of the Tribunal and may be taken into account by the Tribunal when allocating the costs of the arbitration as between the parties.

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**RECYCLECON Standard Contract for the Sale of Vessels for Green Recycling**

(v) The mediation shall not affect the right of either party to seek such relief or take such steps as it considers necessary to protect its interest.

(vi) Either party may advise the Tribunal that they have agreed to mediation. The arbitration procedure shall continue during the conduct of the mediation but the Tribunal may take the mediation timetable into account when setting the timetable for steps in the arbitration.

(vii) Unless otherwise agreed or specified in the mediation terms, each party shall bear its own costs incurred in the mediation and the parties shall share equally the mediator's costs and expenses.

(viii) The mediation process shall be without prejudice and confidential and no information or documents disclosed during it shall be revealed to the Tribunal except to the extent that they are disclosable under the law and procedure governing the arbitration.

(Note: The parties should be aware that the mediation process may not necessarily interrupt time limits.)

- (e) If Box 20 in Part I is not appropriately filled in, Sub-clause 22(a) of this Clause shall apply.

Note: Sub-clauses 22(a), 22(b) and 22(c) are alternatives; indicate alternative agreed in Box 20. Sub-clause 22(d) shall apply in all cases.

**23. Entire Agreement**

This Contract constitutes the entire agreement between the Sellers and the Buyers and no promise, undertaking, representation, warranty or statement by either party prior to the date of this Contract stated in Box 1 shall affect this Contract. Any modification of this Contract shall not be of any effect unless in writing signed by both the Sellers and the Buyers.

**24. Notices**

- (a) Any notice to be given by either party to the other party shall be in writing and may be sent by fax, e-mail, registered or recorded mail or by personal service.
- (b) The address of the Parties for service of such communication shall be as stated in Boxes 21 and 22 respectively.

**ANNEX "A" (VESSEL DETAILS)**

**TO THE BIMCO STANDARD CONTRACT FOR THE SALE OF VESSELS FOR GREEN RECYCLING  
CODE NAME: RECYCLECON**

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Vessel Details (Cl. 1, 2, 6(b), 9(a))

*Sample copy*

**ANNEX "B" (EXCLUDED ITEMS)  
TO THE BIMCO STANDARD CONTRACT FOR THE SALE OF VESSELS FOR GREEN RECYCLING  
CODE NAME: RECYCLECON**

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Excluded Items (Cl. 12(a))

*Sample copy*

**ANNEX "C" (STATEMENT OF COMPLETION)  
TO THE BIMCO STANDARD CONTRACT FOR THE SALE OF VESSELS FOR GREEN RECYCLING  
CODE NAME: RECYCLECON**

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**STATEMENT OF COMPLETION OF SHIP RECYCLING**

This document is a statement of completion of Ship Recycling for:

*(Name of the ship when it was received for recycling/at the point of deregistration)*

RECYCLECON Contract dated:

**Particulars of the Ship as received for recycling**

Distinctive number or letters:	
Port of Registry:	
Gross tonnage:	
IMO number:	
Name and address of shipowner:	
IMO registered owner identification number:	
IMO company identification number:	
Date of Construction:	

THIS CONFIRMS THAT:

The ship has been recycled in accordance with the Ship Recycling Plan at:

*(Name and location of the Ship Recycling Facility)*

and the recycling of the ship as required by the Contract was completed on:

**Date of completion:** (dd/mm/yyyy)  
*(Date of completion)*

**Issued at:**  
*(Place of issue of the Statement of Completion)*

**Date of issue:** (dd/mm/yyyy)  
*(Date of issue)*

**Signature:**  
*(Signature of the owner of the Ship Recycling Facility or a representative acting on behalf of the owner)*

Statement of Completion (Cl. 1, 18)

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