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# Insurance aspects of wrecks and recycling of ships from an environmental sustainability perspective

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# Summary

This thesis is about, as the title reveals, wrecks and recycling of ships. The selected angles are economic and legal aspects of the ship that has become a wreck or sent for recycling. When it comes to wreck the thesis is primarily based on the legal status of the wreck and how the shipowner can get indemnified through their insurance for a total loss. This paper concerns the two subsections of total loss, actual total loss and constructive total loss under the Marine Insurance Act 1906 and associated rules for abandonment and notice of abandonment. The conclusions on the legal definition of the wreck when compared to the definitions of total loss is that they do not entirely match, this is described by the relevant case law in this area, resulting in the conclusion that it depends on the circumstances of each case. In connection with the facts of each case, one can get the guidance from the old definition of a total wreck said to be the difference between whether there is a total loss or partial loss.

The part about the ship recycling mainly concerns the possibilities of an environmentally sustainable recycling. The Convention used today is the Basel Convention even though this convention was construed to deal with transboundary movements of hazardous waste, but there is also a convention designed exclusively for ship recycling called the Hong Kong Convention that has not yet entered into force. The Hong Kong Convention sets higher technical requirements for recycling facilities, which are contended to be needed for recycling to be environmentally sustainable. The EU is concerned about the negative aspects linked to the recycling of European ships, its Waste Shipment Regulation does not have the desired effect, and therefore work have commenced with a new regulation on ship recycling. This new proposal seeks to introduce the technical requirements from Hong Kong Convention by establishing an EU list of facilities that meets these and even further requirements. Under the current Waste Shipment Regulation, European ship are not allowed to be recycled outside of the

OECD, but this would be allowed in the new proposal as long as they are recycled at a facility that are obtained on the EU list, In working with the new proposal, there have been proposals to include a financial mechanism with the objective to make the environmentally sustainable recycling competitive. The options fund and insurance as a financial mechanism is therefore looked into even though the European Parliament recently voted down to have a financial mechanism in the regulation on ship recycling.

# Sammanfattning

Detta examensarbete handlar, precis som titeln antyder, om end of life of ships. Dom valda ingångsvinklarna är ekonomiska och legala aspekter på skepp som har blivit vrak eller är sända för återvinning. När det handlar om vrak så handlar uppsatsen främst om den lagliga statusen av vraket och hur skeppsägaren kan få ut ersättning via sin försäkring för en total loss. Här berör uppsatsen de båda underdelarna av total loss, actual total loss och constructive total loss enligt the Marine Insurance Act 1906, och tillhörande regler för abandonment och notice of abandonment. Slutsatserna om den lagliga definitionen av vraket jämfört med definitionerna av total loss är att dessa inte helt stämmer överens, detta är beskrivet genom relevant case law på området och resulterar i slutsatsen att det är beroende av omständigheterna i varje enskilt fall. I samband med omständigheterna i varje enskilt fall kan man få vägledningen av den gamla definitionen av a total wreck som sägs vara skillnaden mellan om den uppkomna skadan är en total loss eller en partial loss.

När det kommer till delen om skeppsåtervinning handlar den främst om möjligheterna till en hållbar återvinning för miljön. Konventionen som appliceras idag är the Basel Convention men det finns också en konvention framtagen enbart för skeppsåtervinning, kallad the Hong Kong Convention men den har inte trätt i kraft ännu. Hong Kong Conventionen fastställer högre tekniska krav på återvinningsanläggningarna, något som behövs för att återvinningen skall vara miljömässigt hållbar. Inom EU är man bekymrade över dom negativa kopplingar som finns genom återvinnigen av EU-skepp, att deras Waste Shipment Regulation inte har önskad effekt, och jobbar därför med en ny regulation on shiprecycling. I detta nya förslag vill man införa dom tekniska kraven från Hong Kong Konvention genom att införa en EU-lista över anläggningar som uppfyller dessa, och även vissa högre ställda krav. Enligt nuvarande Waste Shipment Regulation får Europeiska skepp inte återvinnas utanför OECD men detta

skulle bli tillåtet så länge den återvinns på en anläggning som uppfyller kraven för EU-listan och återfinns på den. I arbetet med det nya förslaget har det funnits förslag på att koppla ett finansiellt instrument som skulle göra den miljömässigt hållbara återvinningen möjlig eftersom det kostar mer pengar att återvinna skepp med den standarden. Alternativen fond och försäkring som det finansiella instrumentet är därför granskade närmare även om det Europeiska Parlamentet nyligen röstade ner att koppla ett finansiellt instrument till the regulation on ship recycling.



# Abbreviations

Basel Convention	Basel Convention on the control of Transboundary Movement of Hazardous Wastes and Their Disposal, 1989
BIMCO	The Baltic and International Maritime Council
COP	Conference of Parties
ENVI	European Parliament Committee on the Environment, Public Health and Food Safety
EP	European Parliament
EU	European Union
Hong Kong Convention(HKC)	Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009
IG of P&I Clubs	International Group of Protections and Indemnity Clubs
ILO	International Labour Organization
IMO	International Maritime Organization
ISRA	International Ship Recycling Association
ISU	International Salvage Union
LDT	Light Displacement Tonnage
MEP	Member of the European Parliament
MEPC	Marine Environment Protection Committee
Nairobi Convention	Nairobi International Convention on the Removal of Wrecks, 2007
OECD	Organization for Economic Cooperation and Development
WTO	World Trade Organisation

# **1 Introduction**

## **1.1 Background**

The lifespan for a vessel used for commercial purposes is limited. The normal lifespan for a commercially used vessel is something between twenty to thirty years. After the vessel has served its commercial use it goes to ship dismantling, ship breaking, demolition, disposal, scrapping, or ship recycling. Different organisations use different term to describe this process. But it is not only the vessels that have served their time that goes to scrapping, also ships that has become wrecks are after salvage dismantled through the recycling industry. A vessel contains a lot of material that is possible to reuse commercially, including the steel and the engine if it still works. An old ship however also contains many hazardous materials, including asbestos and large quantities of oil and oil sludge, which the recycling process needs to consider and deal with.

The recycling industry is currently concentrated to specific regions of the world. The five biggest nations in the ship recycling business are India, Pakistan, Bangladesh, China and Turkey, so there is a significant concentration around South Asia. The legal convention in force applied to ship recycling even though there are problems in the application of it is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989. There is, however another convention that has been adopted by the IMO called the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009, which has not yet entered into force.

## **1.2 Purpose of the Thesis**

The purpose of this thesis is to look into certain aspects of end of life ships. It will mainly cover two areas, namely wrecks and recycling of ships. Ships are in general associated with something that is worth a lot of money and it

is the economic aspects, along with the legal, that this thesis will focus on. In order to do this a base needs to be established about what laws, guidelines and regulations there are in existence before going into the more narrow parts. When it comes to wrecks the objective is understanding what a wreck is and how the shipowner is compensated when the ship becomes a wreck.

For the recycling of ships, the objective is wider. There is a new specific convention adopted for dealing with ship recycling that is not yet in force called The Hong Kong Convention, but the convention used today for dealing with recycling of ships is the Basel Convention. The problem with the Basel Convention is that it does not specifically deal with the matter of ship recycling, the main objective for the Basel Convention is the transboundary movement of hazardous waste which end of life ships going for scrapping can be seen as. The HKC establishes a higher level of environmentally sound recycling but it needs ratifications to come into force. There are however, proposals, mainly at EU-level, on how the requirements from the Hon Kong Convention can come into force before the actual convention comes into force. Higher level of environmentally sound recycling comes with higher costs, so this type of regulations needs to be both environmentally sustainable and economically sustainable for the parties involved. The purpose is to look into these proposals concerning both EU-registered and non-EU registered vessels and to examine the different options and models, understand how they would work and what effect they could have for the business of ship recycling.

### **1.3 Delimitations**

This thesis will focus on the main sources of law. Relevant Conventions will be mentioned, both such as are in force and such as awaiting enough ratifications to come into force, as well as relevant guidelines, studies, directives, case law etc. In the field of wrecks, English law has a strong position, so regarding wrecks this is the specific law chosen to exemplify how wrecks are treated. The thesis will though focus on ship that may become wrecks as in a more general sense so the aspect of historic wrecks

will not be dealt with. When it comes to delimitations regarding ship recycling the main focus will be to first describe the two different conventions and after that go into what can be done and considered in order to get the requirements from the HKC into force even though the Convention itself probably will not be that in the nearest couple of years. All information found about getting the requirements from the HKC into force are related to the work from the European Union and reports about the different models that can be used, thus will this part be limited to the work from the European Union and different studies concerning that work as well as recent news about the progress of the work.

## **1.4 Research, Methodology and Materials**

The methodology chosen in this thesis is different regarding the two parts of end life ships that the thesis is concerned with. The reason for this is that both parts are necessary to get the wider picture of what are the implications for owners and the vessels when ships have come to end of life, but the main focus of the thesis is end of life ships in relation to recycling. Therefore will the situation for wrecks be mentioned in relation to the legal instruments regarding this, without going into any further discussion of what are the problems with the instruments in force and what is being developed to deal with those problems. This will instead be the methodology for the part concerning ship recycling together with an analysis of the issues and what are done to deal with these. The issue of ship recycling is a current topic within the EU so regarding the newest decisions even newspapers will act as a source.

## **1.5 Scheme of the Thesis**

As stated above, this thesis will deal with selected legal and economic aspects of end of life ships as the situation of wrecks and ship recycling. It starts out by dealing with wrecks. The wrecks chapter enlightens about what constitutes a wreck and what are the legal and economic implications for the owner when the ship becomes such. The next chapter starts out the part

about ship recycling and this chapter establishes a baseline of the business of ship recycling. It mentions the relevant law aspects in this area and describes the business of ship recycling. Conventions, regulations, directives and guidelines relevant in connection with ship recycling are mentioned where focus is on the not yet in force Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships. The next two chapters will deal with different models of a financing mechanism discussed to use in connection with a regulation on ship recycling in the European Union. The progress of the proposal for a regulation on ship recycling in the European are mentioned and how it has changed. For an environmentally sustainable recycling to work the recycling must also be economical sustainable for the stakeholders in the industry. The final chapter will then summarize the thesis and what can be concluded from the work.

## 2 Financial Aspects of Shipwrecks

In UK law there is three main laws that apply to shipwrecks. There is the Merchant Shipping Act 1995, the Protection of Wrecks act 1973 and the Protection of Military Remains 1986, but depending on where the wreck site is located the Ancient Monuments & Archeological Areas Act might also be applicable. Of these Act the Protection of Wrecks Act says in section 1 that it is designed to protect wrecks which are of historic, archeological or artistic importance. Section 2 of the same act covers wrecks considered as being potentially dangerous<sup>1</sup>, both these sections relates to aspects of wrecks which this thesis will not deal with and it will neither deal with military remains.

### 2.1 What Constitutes a Wreck

What is regarded as a wreck in English law is rooted in English history both concerning meaning of and rights over it<sup>2</sup>. According to the authors of the book *Merchant shipping Legislation* the definition of wreck originally included all objects formerly being a ship or part thereof, washed up on shore or found upon the sea. The term wreck came later to have a more restrictive meaning, namely that of *wreccum maris*, meaning wreck of the sea<sup>3</sup>. In the *Sir Henry Constable's Case* it was held regarding *wreccum maris* that:

That nothing shall be said *wreccum maris* , but such goods only which are cast or left on the land by the sea; for *wreccum maris significat illa bona, quæ naufragio ad terram appelluntur: flotsam* is when a ship is sunk, or otherwise perished, and the goods float on the sea; *jetsam* is when the ship is in danger of being sunk, and to lighten the ship the goods are cast into the sea, and afterwards

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<sup>1</sup> Wreck and Salvage Law, Department of Transport, <https://www.gov.uk/wreck-and-salvage-law>, last accessed 21/05/2013.

<sup>2</sup> Geoffrey Brice, *Brice on Maritime Law of Salvage* (John Reeder ed, 5th edn, Sweet and Maxwell 2011) p 270.

<sup>3</sup> Aengus Richard, Martyn Fogarty, *Merchant Shipping Legislation* (2<sup>nd</sup> edn, 2004) chapter 8 note 115.

notwithstanding the ship perish. *Lagan (rel potius ligan)* is when the goods which are so cast into the sea, and afterwards the ship perishes, and such goods cast are so heavy that they sink to the bottom, and the mariners, to the intent to have them again, tie to them a buoy, or cork, or such other thing that will not sink, so that they may find them again, & *dicitur lig. a ligando*: and none of these goods which are called *jetsam, flotsam* or *ligan* , are called wreck so long as they remain in or upon the sea; but if any of them by the sea be put upon the land, then they shall be said wreck. So *flots. jetsam* , or *ligan* , being cast on the land pass by the grant of wreck<sup>4</sup>.

A distinction could thus be noted between goods which are cast or left on the land by the sea, and goods found upon the sea. If the goods were found upon land they were according to Blackstone regarded as *wreccum maris* and by that declared King's property as part of his royal prerogative statute 17 Ed. II, c. 11, and were so long before in common law. It was possible to have exceptions from this in places privileged by the King i.e. to the lord of the manor<sup>5</sup>. If they were found upon the sea they were instead seen as jetsam, flotsam or ligan and by that jurisdiction of the court of admiralty<sup>6</sup>.

The principal statutory provisions for wrecks in English law are nowadays found in the Merchant Shipping act 1995. Wrecks are located in part IX of the act. Section 255 in part IX deals with interpretations of words mentioned in that part and regarding wrecks it says that;

In this Part—"wreck" includes jetsam, flotsam, ligan and derelict found in or on the shores of the sea or any tidal water<sup>7</sup>

Whit this definition it does not seem to matter if the goods are found on the shores or in the water. What is constituted as flotsam, jetsam and ligan have briefly been mentioned in relation to the *sir Henry Constable's Case* derelict have so far not been considered. Derelict means a ship at sea, abandoned and deserted by her master and crew and they do not intend to return to the

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<sup>4</sup> *Sir Henry Constable's Case* (1600) 5 Co. Rep. 106a 77 E.R. 218, p219f.

<sup>5</sup> Geoffrey Brice, *Brice on Maritime Law of Salvage* (John Reeder ed, 5th edn, Sweet and Maxwell 2011) p 273

<sup>6</sup> *Sir Henry Constable's Case* (1600) 5 Co. Rep. 106a 77 E.R. 218, p220. .

<sup>7</sup> Merchant Shipping Act, 1995, s 255.

ship. If the master and crew only leave the ship temporarily with the intention to come back, it is not derelict<sup>8</sup> as stated by Sir William Scott in *the Aquila* where he held that:

This is a case of a ship and cargo found derelict at sea, and certainly it is a case of legal derelict; for it is by no means necessary to constitute derelict, that no owner should afterwards appear. It is sufficient if there has been an abandonment at sea by the master and crew, without hope of recovery: I say without hope of recovery; because a mere quitting of the ship for the purpose of procuring assistance from shore, or with an intention of returning to her again, is not an abandonment<sup>9</sup>.

The central question whether or not there is a case of derelict vessel is the question of intent to abandon permanently as discussed by Lord Finlay in the case *Bradley v H. Newsom Sons & Co*<sup>10</sup> along with references to relevant case law.

## 2.2 Insurance Loss

When a ship somehow becomes a wreck there will most likely also be someone who has suffered a loss. Whether that loss is recoverable under the insurance is depending on the situation and the wording of the policy. In this part of the chapter, the different types of insurance losses are dealt with, to get a picture of what kind of loss it is when a ship becomes a wreck and who ends up with the responsibility for the physical wreck. This is based upon the fact that the suffered loss is actually caused by an insured peril that the insurance contract cover. Marine insurance law divides losses into total and partial losses. Total losses are subdivided into actual total losses and constructive total losses where constructive total losses are unique to marine insurance. Any loss other than a total loss is according to the Marine Insurance Act to be seen as a partial loss.<sup>11</sup>

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<sup>8</sup> Geoffrey Brice, *Brice on Maritime Law of Salvage* (John Reeder ed, 5th edn, Sweet and Maxwell 2011) p 275.

<sup>9</sup> *The Aquila* (1798) 1 C Rob 37, 165 ER 87, p88.

<sup>10</sup> *Bradley v H. Newsom Sons & Co*[1919] A.C. 16, p24-26.

<sup>11</sup> Marine Insurance Act 1906, s56



## 2.2.1 Actual Total Loss

A definition of actual total loss are found in section 57 of the Marine Insurance Act 1906<sup>12</sup> where it is stated

(1)Where the subject-matter insured is destroyed, or so damaged as to cease to be a thing of the kind insured, or where the assured is irretrievably deprived thereof, there is an actual total loss.

(2)In the case of an actual total loss no notice of abandonment need be given.

As Professor Howard Bennett points out in his book *The Law of Marine Insurance* there appears according to subsection 1 to be three categories of Actual Total Loss, they are, destruction, damage so as to cease to be a thing of the kind insured and irretrievable deprivation.<sup>13</sup>

### 2.2.1.1 Destruction

According to Bennett the important thing regarding destruction is the change of character of the ship. He says that no matter how damaged the ship is, there is no actual total loss of the ship if it remains safe in the hands of the owner and still holds the character of a ship<sup>14</sup>. The term change of character was mentioned in the case *Cambridge v Anderton*<sup>15</sup> where Bayley J stated by referring to *Read v. Bonham* (3 B. & B. 147) that

I take the legal principle to be this ; if, by means of any of the perils insured against, the ship ceases to retain that character and becomes a wreck, that is a total loss, and the master may sell her, and the assured may recover for a total loss, without giving any notice of abandonment.<sup>16</sup>

In the same case Abbott CJ held

...If the subject matter of insurance remained a ship, it was not a total loss, but if it were reduced to a mere congeries of planks, the

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<sup>12</sup> Marine Insurance Act 1906, s57

<sup>13</sup> Howard Bennett, *The Law of Marine Insurance* (2<sup>nd</sup> edn, Oxford University Press 2006) p643.

<sup>14</sup> Ibid p643.

<sup>15</sup> *Cambridge v Anderton* (1824) 2 B. & C. 691.

<sup>16</sup> Ibid p693.

vessel was a mere wreck, the name which you may think fit to apply to it cannot alter the nature of the thing.<sup>17</sup>

Both judges refer the situation of an actual total loss through destruction to situations where the ship is seen as a wreck, and when comparing these two words and what they mean that sounds like a logical connection.

### **2.2.1.2 Damage so as to Cease to be a Thing of the Kind Insured**

The relevant thing to look into when considering damage so as to cease to be a thing of the kind insured, is whether the insured property has changed in a way that affects its commercial identity. A Relevant case that discusses this is *The Shakir III*<sup>18</sup> where the vessel with the same name, was sold to a company for demolition and was being towed as a “dead ship“ to a place nominated by the buyer. Due to a typhoon threatening the area of which the nominated place was located an extra tow was necessary to minimize the danger from the typhoon. During this extra tow the tug and the vessel was separated and the vessel was stranded and appeared to be almost broken in two. Lord Justice Potter held

In those circumstances, and bearing in mind that the vessel was a dead ship under tow and heading for break-up, it does not seem to me that, by reason of its grounding and/or the damage it had sustained, it had lost its essential identity or ceased to be a thing of the kind insured. Albeit it was grounded and incapable of proceeding without salvage and a degree of repair, its essential components were not so damaged or dissipated that its role and function as a dead ship susceptible of being towed away for scrap had been totally destroyed.<sup>19</sup>

Bennett states that it could have been the case of loss of commercial identity if the vessel had already broken into two parts and by that rendered the vessel incapable of a single tow. The ship though remained as a single

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<sup>17</sup> Ibid p692.

<sup>18</sup> *Fraser Shipping Ltd v Colton (The Shakir III)* [1997] 1 Lloyd’s rep 586.

<sup>19</sup> Ibid p691.

vessel and by that kept its commercial uses in this case as a dead ship on its way for demolition, making the insurers not liable under actual total loss.<sup>20</sup>

### **2.2.1.3 Irretrievable Deprivation**

According to Susan Hodges in her book *Cases and Materials on Marine Insurance Law* irretrievable deprivation exists to allow the assured to recover his property when it is deprived from him through no faults of his own and it still exists in specie<sup>21</sup>. Bennett chooses to talk about a degree of probability that the property will not be recovered. He makes the distinction between when it is unlikely that the assured can recover his property within a reasonable time and when he might not recover his property at all. The former situation falls under constructive total loss and the latter falls under irretrievable deprivation under actual total loss<sup>22</sup>. To get some guidance as how this is applicable in cases, a glance back at *The Shakir III* might be helpful, where LJ Potter regarding Irretrievable deprivation stated

As to the definition of actual total loss, whether the plaintiffs were “irretrievably deprived” of the vessel prima facie depends upon whether, by reason of the vessel’s situation, it was wholly out of the power of the plaintiffs or the underwriters to procure its arrival. It seems to me that this, in turn, depends upon whether the vessel could have been physically salvaged or not. The undisputed evidence in this respect was to the effect that it was feasible to salvage the vessel subject to accessibility and cost.<sup>23</sup>

## **2.2.2 Constructive Total Loss**

The subject of constructive total loss is defined in section 60 of the Marine Insurance Act 1906 and the effect of such a loss is defined in section 61 of that same act. Susan Hodges describes constructive total loss as the insured

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<sup>20</sup> Howard Bennett, *The Law of Marine Insurance* (2nd edn, Oxford University Press 2006) p645.

<sup>21</sup> Susan Hodges, *Cases and Materials on Marine Insurance Law* (Cavendish Publishing Ltd 1999) p613.

<sup>22</sup> Howard Bennett, *The Law of Marine Insurance* (2nd edn, Oxford University Press 2006) p646.

<sup>23</sup> *Fraser Shipping Ltd v Colton (The Shakir III)* 1 Lloyd’s rep586, p 591.

property is effectively lost to the assured but is not actually destroyed<sup>24</sup>.

Section 60 reads:

(1) Subject to any express provision in the policy, there is a constructive total loss where the subject-matter insured is reasonably abandoned on account of its actual total loss appearing to be unavoidable, or because it could not be preserved from actual total loss without an expenditure which would exceed its value when the expenditure had been incurred.

(2) In particular, there is a constructive total loss—

(i) Where the assured is deprived of the possession of his ship or goods by a peril insured against, and (a) it is unlikely that he can recover the ship or goods, as the case may be, or (b) the cost of recovering the ship or goods, as the case may be, would exceed their value when recovered; or

(ii) In the case of damage to a ship, where she is so damaged by a peril insured against that the cost of repairing the damage would exceed the value of the ship when repaired.

In estimating the cost of repairs, no deduction is to be made in respect of general average contributions to those repairs payable by other interests, but account is to be taken of the expense of future salvage operations and of any future general average contributions to which the ship would be liable if repaired; or

(iii) In the case of damage to goods, where the cost of repairing the damage and forwarding the goods to their destination would exceed their value on arrival.<sup>25</sup>

The House of Lords did in the case *Robertson v Petros M Nomikos Ltd* confirm that subsection (1) and (2) of section 60 of the act are two separate definitions of constructive total loss which could be applied on different conditions of fact<sup>26</sup>. Section 60(1) relates to both ship, goods and freight as it in general terms relates as to the subject matter insured, meanwhile (2) is more specific, 2(i) relates to ship or goods, meanwhile 2(ii) relates to

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<sup>24</sup> Susan Hodges, *Cases and Materials on Marine Insurance Law* (Cavendish Publishing Ltd 1999) p623.

<sup>25</sup> Marine Insurance Act s60.

<sup>26</sup> Susan Hodges, *Cases and Materials on Marine Insurance Law* (Cavendish Publishing Ltd 1999) p623.

damage to the ship and 2(iii) only concerns damage to goods<sup>27</sup>. Since this paper aims to look at cases concerning wrecks there are subsections 1, 2(i) and 2(ii) left to be investigated further.

### **2.2.2.1 Section 60(1) of the Marine Insurance Act 1906**

Subsection 1 of the Marine Insurance Act 1906 could be divided into two parts, the first being the vessel reasonable abandoned due to the actual total loss being unavoidable, and the second part would be when it is not economical beneficial to save the ship from an actual total loss due to the costs. The issue what was deemed to be unavoidable was raised in the case *Lind v Mitchell*<sup>28</sup> where a ship was abandoned by its master after being damaged by ice, and a gale was expected, meaning winds at an strength of 17.5–24.2 m/s<sup>29</sup>. Scrutton LJ held on the matter of reasonable unavoidable that:

...that is to say, total loss probable from the leak appearing, judged to be unavoidable, and therefore a reasonable abandonment of the vessel which it is reasonably thought will anyhow be lost by perils of the sea? Now I am satisfied that the abandonment was unreasonable. The vessel was within 15 miles of her home port. The lifeboat into which the crew got, according to the evidence, was able to sail and row in with a north-east wind. If the lifeboat could sail, the schooner could equally have sailed with the north-east wind....I assume in my judgment that the abandonment by the master was unreasonable.<sup>30</sup>

From this case it seems like the abandonment was unreasonable due to the fact that the wind could have equally helped the schooner as it helped the lifeboat, and due to that a total loss from the appeared leak was not unavoidable. A link between the words unavoidable and unreasonable seems to be key. The word reasonable was further described in the case *Court Line Ltd v R, 'Lavington Court'*<sup>31</sup> where J Stable stated;

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<sup>27</sup> Ibid p629.

<sup>28</sup> *Lind v Mitchell* (1928) 32 Ll.L.Rep 70.

<sup>29</sup> Susan Hodges, *Cases and Materials on Marine Insurance Law* (Cavendish Publishing Ltd 1999) p632.

<sup>30</sup> *Lind v Mitchell* (1928) 32 Ll.L.Rep70, p74.

<sup>31</sup> *Court Line Ltd v R, "Lavington Court"* (1945) 78 Ll.L.Rep 390, CA.

To attempt to give a definition of the word applicable in all circumstances is, I think, likely to do more harm than good. It is sufficient to say that I think the word connotes a very high degree of probability, with the additional element that there is no course of action, project or plan, present at the time or place in the mind of the person concerned which offers any reasonable possibility of averting the anticipated event.<sup>32</sup>

This description gives support for the view that an actual total loss must be close to, or actual, unavoidable to be unreasonable.

The other part of section 60(1) say there is a constructive total loss if it cannot be preserved from an actual total loss without an expenditure which would exceed its value when the expenditure had been incurred. If the first part of this subsection was based on reasonable abandonment this latter is instead based on an economical abandonment and explained as abandonment through letters rather than through lifeboats.<sup>33</sup>

### **2.2.2.2 Section 60(2) of the Marine Insurance Act 1906**

This subsection is divided into (i), (ii) and (iii) where (i) and (ii) concerns ships and will be looked into.

#### **2.2.2.2.1 Section 60(2)(i)**

This subsection concerns situations where the assured has been deprived of the possession of his ship. This does however not require loss of actual physical possession of the ship, instead it is enough if the assured has been deprived of control or free use and disposal of the ship<sup>34</sup>. According to Susan Hodges it is generally accepted that this subsection of constructive total loss is primarily concerned with losses causes by capture or seizure of

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<sup>32</sup> Ibid p401.

<sup>33</sup> Susan Hodges, *Cases and Materials on Marine Insurance Law* (Cavendish Publishing Ltd 1999) p633.

<sup>34</sup> Howard Bennett, *The Law of Marine Insurance* (2nd edn, Oxford University Press 2006) p652.

the ship by a belligerent state<sup>35</sup>, situations that is normally not related to wrecks. The subsection is divided into two situations when the deprivation of possession becomes a constructive total loss and that is when (a) unlikelihood of recovery of the ship and (b) the cost of recovery would exceed its recovered value.

To put this into context of wrecks Bennett writes that whether a vessel that is either stranded or sinks is a constructive total loss under 60(2)(i) depends entirely upon the circumstances of the casualty. Two examples from case-law are used by Bennett to illustrate this, *George Cohen Sons & Co v Standard Marine Insurance Co Ltd*<sup>36</sup> and *Captain Ja Cates Tug & Wharfage Co Ltd v Franklin Insurance Co*<sup>3738</sup>. In *George Cohen Sons & Co v Standard Marine Insurance Co Ltd* a vessel was abandoned by tugs during voyage. The vessel was grounded, lying upon part of the support of a groyne of the Dutch Coast. J Roche held the ship to be a constructive total loss for two reasons. The first reason was that the expenses for getting the vessel of and to satisfy the requirements of the authorities charged with the protection of the sea defense would far exceed the insured value of the ship. The other reason was that recovery of the ship was unlikely since it was unlikely that the Courts would have approved such a mission to take place.<sup>39</sup>

In *Captain Ja Cates Tug & Wharfage Co Ltd v Franklin Insurance Co* a tug was sunk in a collision in the harbor of Vancouver. The circumstances of how the vessel laid, how damaged she was, the depth etc. showed that it was quite a feasible operation to raise the vessel, so in this case the appellants failed to bring themselves within 60(2).<sup>40</sup>

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<sup>35</sup> S Hodges p636.

<sup>36</sup> *George Cohen Sons & Co v Standard Marine Insurance Co Ltd* (1925) 21 Ll.L Rep 30.

<sup>37</sup> *Captain Ja Cates Tug & Wharfage Co Ltd v Franklin Insurance Co* [1927] 28 Ll.L.Rep 161.

<sup>38</sup> Howard Bennett, p656.

<sup>39</sup> *George Cohen Sons & Co v Standard Marine Insurance Co Ltd* (1925) 21 Ll.L Rep 30, p34.

<sup>40</sup> *Captain Ja Cates Tug & Wharfage Co Ltd v Franklin Insurance Co* [1927] 28 Ll.L.Rep 161, p164.

There is an unavoidable relationship between this subsection of constructive total loss where the assured is deprived of possession and the case of actual total loss where the assured is irretrievably deprived of possession of the subject matter insured that needs to be explored. As mentioned above irretrievable deprivation is based on unlikely hood of recovery at all meanwhile deprived of possession in accordance with constructive total loss is linked with unlikely hood of recovery within a reasonable time. The situation of deprived of possession through capture was discussed in the case *Polurrian Steamship Co Ltd v Young*<sup>41</sup> where a ship was captured by a belligerent state, deprived of her cargo and detained for six weeks. The court held:

in the present case, to enable the plaintiffs to succeed, they must establish fully (1.) that at the date of the commencement of this action they were deprived of the possession of the *Polurrian*; and (2.) that it was not merely quite uncertain whether they would recover her within a reasonable time, but that the balance of probability was that they could not do so.<sup>42</sup>

This points out that it is not enough if it is uncertain if the assured can recover within a reasonable time but instead it should be so according to the balance of probability.

#### **2.2.2.2.2 Section 60(2)(ii)**

In this subsection the assured remains in possession and control of the ship and the claim for constructive total loss is instead seen as an economic decision<sup>43</sup>. The text of the subsection says that it is a constructive total loss if the cost of repairing the damage caused by an insured peril would exceed the value of the ship when repaired. According to Bennett there is a question of some historic controversy regarding what figure the value of the repaired ship shall be compared with to determine if it is a constructive total loss or not. The two alternatives are the cost of repairs of the vessel alone, or the

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<sup>41</sup> *Polurrian Steamship Co Ltd v Young* [1915] 1 K.B. 922

<sup>42</sup> *Ibid*, p937.

<sup>43</sup> S Hodges, p644.



cost of repairs added to the value of the unrepaired vessel<sup>44</sup>. Section 60(2)(ii) of the Marine Insurance Act has been held to enact the view declared in the case *Angel v Merchants' Marine Insurance Co*<sup>45</sup> where the court held that the assured is not entitled to add the damaged value of the vessel to the repairing costs<sup>46,47</sup>. There was later a problem with the wording of section 60 of the Marine Insurance Act pointing towards the value of the unrepaired ship to be included in the calculations, but this was solved through the case *Hall v Hayman*<sup>48</sup> where J Bray held

The rule therefore of the common law, that the value of the wreck ought to be added to the estimated cost of repairs in determining whether the ship can be treated as a constructive total loss, is, in my opinion, inconsistent with the express provisions of s. 60 and can no longer be treated as the law. It is a consequence which sometimes happens as the result of codifying the law—a somewhat difficult process. It seems to me to be unfortunate because I do not suppose that the Legislature intended to alter the common law. At the time of the passing of the Act the common law as laid down in *Angel v. Merchants' Marine Insurance Co.* (1) was that the value of the wreck ought not to be added to the estimated cost of repairs, and the Legislature probably thinking that that was the common law simply adopted it.<sup>49</sup>

This seems like the logical approach to this issue. If the value of the unrepaired vessel were to be added with the cost of repairs that would seem like beneficial for the assured and unbeneficial for the insurer. The insurer wants to pay out as less money as possible and if it cost less money to repair the vessel compared with the value of the repaired vessel the economical beneficial way is to repair that vessel. Including the value of the unrepaired vessel with the cost of repairs would make several situations into

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<sup>44</sup> H Bennett, p657.

<sup>45</sup> *Angel v Merchants' Marine Insurance Co* [1903] 1 K.B. 811

<sup>46</sup> H Bennett, p657f.

<sup>47</sup> *Angel v Merchants' Marine Insurance Co* [1903] 1 K.B. 811, p825, 828.

<sup>48</sup> *Hall v Hayman* [1912] 2 K.B. 5.

<sup>49</sup> *Ibid*, p14.

constructive total loss which otherwise would not be a constructive total loss.

### 2.2.2.2.3 Calculation of the damage

Something that comes back in the different parts of section 60 is if it is worth to repair, preserve or recover the vessel in relation to its value. To be able to determine if it is worth to take action is dependent on having the vessel correctly valued. The value of the repaired ship taken into account when determining if there is a constructive total loss or not, is the market value. This can be read out from section 27(4) of the Marine Insurance Act which states;

Unless the policy otherwise provides, the value fixed by the policy is not conclusive for the purpose of determining whether there has been a constructive total loss<sup>50</sup>.

When having a fixed value of the vessel in the policy between the insurer and the assured it dictates the amount of indemnity for the assured when the sustained loss has been classified, but the fixed value of the vessel does not generally lay ground for the classification of that loss. The word generally is used since the subsection starts out with the words *unless the policy otherwise provides* meaning it is possible for the parties to otherwise decide in the policy. Relevant case law in this area is *Irving v Manning*<sup>51</sup> where a ship was so damaged as to be rendered unseaworthy. The ship was insured under a valued policy with an agreed value at 17500£, repairs for 10500£ was needed for the ship to be seaworthy and the market value for the ship when repaired was 9500£<sup>52</sup>. The cost of repairs was bigger than the market value but smaller than the agreed value. In this case the court held that there was a constructive total loss since the market value was the relevant value in relation to the cost of repairs. This case is relevant to cases where the policy has not specified an agreed value as to be seen as the repaired value<sup>53</sup>. The court held;

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<sup>50</sup> Marine Insurance Act, s27(4).

<sup>51</sup> *Irving v Manning* (1847) 1 HLC 287.

<sup>52</sup> Howard Bennett, p659.

<sup>53</sup> Susan Hodges, p646.

...the question of loss, whether total or not, is to be determined just as if there was no policy at all; and the established mode of putting the question, when it is alleged that there has been, what is perhaps improperly called, a constructive total loss of a ship, is to consider the policy altogether out of the question, and to inquire what a prudent uninsured owner would have done in the state in which the vessel was placed by the perils insured against. If he would not have repaired the vessel, it is deemed to be lost. When this test has been applied, and the nature of the loss has been thus determined, the quantum of compensation is then to be fixed. In an open policy, the compensation must be then ascertained by evidence. In a valued one, the agreed total value is conclusive; each party has conclusively admitted that this fixed sum shall be that which the assured is entitled to receive in case of a total loss<sup>54</sup>.

If the policy in this case had specified the agreed value to also be the repaired value the logic answer with the current s27(4) would be that it was not a constructive total loss since the 10500£ would then be compared with 17500£ instead of 9500£.

## 2.3 Abandonment of the Vessel

Through the abandonment of the vessel there is not automatic transfer of rights. Instead the abandonment is an offer from the assured to the insurer of the assureds remaining rights in the property. This offer can the insurer chose to either accept or decline. If the insurer accepts the transfer occurs upon payment of the measure of indemnity for a total loss. Where the insurer pays for a total loss he becomes entitled to take over the assureds interest in what may be remaining of the subject matter insured according to s79(1) about subrogation. The same goes for when there is a valid abandonment according to s63(1). The rules are the same for actual total loss and constructive total loss, but in the situation of a constructive total loss there are procedural requirements for the notice of abandonment of the vessel according to s62 otherwise the loss can only be treated as a partial loss. There are though exceptions from when no notice of abandonment is

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<sup>54</sup> *Irving v Manning* (1847) 1 HLC 287, p306.

necessary in relation to constructive total loss and that is when the insurer has no possibility of benefit from a notice of abandonment to him at the time the assured receives information about the loss.<sup>55</sup>

## 2.4 Salvage

If a ship in any way becomes a wreck it may be positioned in such a way that it requires to be salvaged. It may for example have created a hazard to navigation, a source of pollution or annoyance. Salvaging a vessel is normally an expensive activity so the question of who is responsible of paying for it becomes highly relevant.

Salvage of wrecks, both ancient and modern, have become more and more common due to the technical development. Due to this have The International Group of P&I Clubs, BIMCO and the ISU agreed three standard forms of wreck removal contract with the names, Wreckshire 99, Wreckfixed 99 and Wreckstage 99.<sup>56</sup>

## 2.5 Payment for Wreck Removal

This part will look into who is liable to pay for the wreck removal. Since the abandonment is an offer the insurer is entitled to take over the abandoned property but they are not bound to do so. Bennett states by referring to the case *Barraclough v Brown*<sup>57</sup> that the assured is divested of ownership rights when the insurer has accepted the notice of abandonment. He continues by stating that this is also possible when the abandonment has been rejected before the incurral of the removing expenses<sup>58</sup>. It appears that it is possible for the assured to unilaterally divest himself from all rights in the property even though there is no assumption of these rights from a counterparty. The property instead becomes “*res nullis*”, meaning it is abandoned to the world

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<sup>55</sup> Bennett, p692ff.

<sup>56</sup> Geoffrey Brice, *Brice on Maritime Law of Salvage* (John Reeder ed, 5<sup>th</sup> edn, Sweet and Maxwell 2011) p 39f.

<sup>57</sup> *Barraclough v Brown* [1897] A.C. 615.

<sup>58</sup> Bennett p699.

and possible for any finder to take it into ownership<sup>59</sup>. This was mentioned by Justice Bailhache in the case *Mayor and Corporation of Boston v France, Fenwick and Co Ltd*<sup>60</sup> where he stated;

I have refrained from expressing any opinion as to whether a valid notice of abandonment unaccepted by underwriters, while it divests the owner of his property in the wreck, at the same time automatically transfers the property to the underwriters. I will only say that there is a good deal to be said against this view in favour of the wreck in such circumstances becoming a *res nullius*. The point does not call for direction, and I will leave it.<sup>61</sup>

The fear of liabilities attached to the insured property has made that the hull underwriters' close to always refuse a notice of abandonment<sup>62</sup>. When it comes to P&I Insurance the club rules state in art 10.212 that the insurance cover;

Besides cover for liabilities arising from the removal of wrecks consequent on a collision, club cover extends to other wreck liabilities. Clubs indemnify members in respect of costs or expenses relating to the raising, removal, destruction, lighting or marking of the wreck<sup>212</sup> of the entered vessel when such activities are compulsory by law<sup>213</sup> or the costs of such are legally recoverable from the member. This head of cover extends to liability incurred by the member as the result of any such raising, removal or destruction of the wreck of the entered vessel or any attempt at these activities. Also covered are liabilities incurred by the member as the result of the presence or involuntary shifting of the wreck or as a result of his failure to remove, destroy, light or mark such wreck, including liability arising from the discharge or escape from such wreck of oil or any other substance.<sup>63</sup>

The rules ad in art 10.214 that any proceeds from the materials, wreck etc. shall be deducted from the costs or expenses and only the balance is recoverable from the club.

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<sup>59</sup> Bennett, p698.

<sup>60</sup> *Mayor and Corporation of Boston v France, Fenwick and Co Ltd* (1923) 15 LIL Rep 85.

<sup>61</sup> Ibid, p91.

<sup>62</sup> Bennett, p702.

<sup>63</sup> Steven J. Hazelwood, David Semark, P. & I Clubs Law and Practice, (4<sup>th</sup> edn, 2010), p67

## 2.6 The Nairobi International Convention on the Removal of Wrecks 2007 (ICRW)

The Nairobi International Convention on the Removal of Wrecks<sup>64</sup> will provide the legal basis for states to remove, or have wrecks removed, that may have the potential to affect the safety of lives, goods and property at sea, and the marine environment, in a negative way. The convention was adopted 18 May 2007 in Kenya and will according to article 18 enter into force: twelve months following the date on which ten states have either signed it without reservation as to ratification, acceptance or approval or have deposited instruments of ratification, acceptance, approval or accession with the Secretary-General. The convention is however not yet in force since currently there are only six contracting states/parties corresponding to 2.81% of the world's tonnage<sup>65</sup>.

According to IMO, the convention will fill a gap in the existing international legal framework when it provides the first set of uniform international rules with the goal to ensure the prompt and effective removal of wrecks located beyond the territorial sea. This is due to the problems that abandoned ship cause to navigation and shipping in general. The number of abandoned ship is estimated at around 1300 worldwide, and increasing. The problems with these abandoned ships are according to IMO three folded. First there is the potential hazard to navigation, second there is the potential danger that a wreck may cause to the marine and coastal environment, and thirdly there is the cost issue of marking and removing the hazardous wrecks. These questions and questions related to these, will the convention try to resolve.<sup>66</sup>

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<sup>64</sup> Nairobi International Convention on the Removal of Wrecks 2007

<sup>65</sup> Summary of Status of Conventions, IMO 30/04/2013, Internet Access IMO webpage <http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx> last accessed 20/05/2013.

<sup>66</sup> IMO, Nairobi International Convention on the Removal of Wrecks, Internet access <http://www.imo.org/About/Conventions/listofconventions/pages/nairobi-international-convention-on-the-removal-of-wrecks.aspx> last accessed 19 March 2013

The convention is mainly applicable to wrecks<sup>67</sup> in the convention area, meaning the exclusive economic zone<sup>68</sup>, but states can apply it to their territorial waters as well. The convention does however not specify how a safe disposal of a recovered wreck should take place, for example in connection with recycling.<sup>69</sup>

There are also financial provisions in the Convention for the wreck removal, the shipowners are financially responsible to take out insurance or provide security for such costs, and there is compulsory wreck removal Insurance in the Convention for ships of 300 grt or more in art12.

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<sup>67</sup> Nairobi Convention, art 1(4).

<sup>68</sup> Ibid art 1(1).

<sup>69</sup> Tony George Puthucherril, *From Shipbreaking to Sustainable Ship Recycling: Evolution of a Legal Regime* (Martinus Nijhoff Publisher 2010) p128

### 3 Ship Recycling

The Average life for a ship used for commercial purposes is about 20-30 years. After those years, the most eco-friendly thing to do is to send the ship for ship recycling. Nearly 90% of the output of a ship can either be recycled or re-used, and around 4% of the vessels in the world fleet have to get recycled each year, which means approximately 800 vessels. The ship recycling industry is currently mostly located to India, Pakistan, Bangladesh and China in Asia, and Turkey in Europe. Over 90% of the world's ship recycling takes place in those countries<sup>70</sup>. Bangladesh, India and China have the biggest shares of the world's recycling capacity with shares between 24% -31% meanwhile Pakistan and Turkey have shares around 11% and 4%. Even if Turkey has the smallest share of these five countries they still recycle more than what the rest of the countries in the world does together if they combine their shares<sup>71</sup>. According to the NGO Shipbreaking Platform did European based shipping companies alone send 365 end of life ships to south of Asia for scrapping in 2012.<sup>72</sup>

The ship breaking industry is like all other dependant on supply and demand. In this case, the supply is ships ready for scrapping and demand is how demanded the recyclable materials are on the market. How many ships that are up for scrapping and how demanded the recyclable materials are on the market are things that are mainly dependent on economics seen from a bigger picture. There is an extensive review done in the subject called *The Ship Recycling Conundrum: An Econometric Analysis of Market Dynamics and Industry Trends*<sup>73</sup>, but to keep it simple it could be said that there are

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<sup>70</sup> *Ship Recycling, Shipping, Marine & Ports Exposition 2012: Post-Summit Report* (P Nagarseth ed, Deloitte June 2012, p24

<sup>71</sup> MEPC 62<sup>nd</sup> Session Recycling of Ships: *Calculation of recycling capacity for meeting the entry into force conditions of the Hong Kong Convention: Note by the Secretariat*, MEPC, 64/INF.2, 2012. p3.

<sup>72</sup> NGO Platform Report, *European Ships Sent to South Asia in 2012*.

<sup>73</sup> S Knapp, S N. Kumar, A B Remijn, *The Ship Recycling Conundrum: An Econometric Analysis of Market Dynamics and Industry Trends*, Erasmus University Rotterdam Econometric Institute Report 2007-52.



both global, regional, and national economics involved in the factors affecting the supply and demand sides. When a shipowner thinks of sending a ship for scrapping, he is mostly concerned with the costs to keep the vessel in operations in connection with freight rates to decide if the ship can make revenue or not. Other aspects affecting this decision could be if there, for example, are any new regulations that comes into force and the current ship does not live up to the new demands in those regulations<sup>74</sup>. There is currently over capacity in the freight markets. Because of this, many ships are struggling to make profit and instead they are sent to the scrap yards.

When it comes to the demand side and factor affecting the demand for scrap materials, there is mostly the price of steel and the costs for shipbreaking. The cost for shipbreaking varies from country to country, mostly depending on what kind of regulations the specific country has on workplace safety and environmental impact generated from the business. Costs associated by labour are one significant part of the costs for ship breaking.<sup>75</sup>

The ship breakers make most of their profit from selling ferrous or mild steel scrap, which is describes as high quality ship steel scrap. The selling of mild steel scrap consists of two segments, re-rollable scrap and melting scrap. re-rollable is higher-valued steel plates that can be heated and re-rolled to use in for example construction. re-rollable stands for at least 70% of the recycled ships light displacement tonnage, also known as the actual weight for the empty ship. The melting scrap is mostly sold to re-rolling mills, who melts down the smaller pieces of scrap iron to make ingots. This stands for about 10-20% if the light displacement tonnage.<sup>76</sup>

### **3.1 The Basel Convention on the Control of Transboundary Movements of**

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<sup>74</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p12

<sup>75</sup> Ibid p12

<sup>76</sup> Ibid p12

# Hazardous Wastes and their Disposal 1989

The international legal monitoring of ship breaking has so far primarily been handled through the Basel Convention regime<sup>77</sup>. This Convention was adopted in 1989 by Conference of Plenipotentiaries in Basel, Switzerland and entered into force in May 1992. It was introduced due to information in the 1980's of toxic wastes being imported to parts of the developing world from abroad, especially movement from developed countries to less developed countries. The objective of the conventions was to protect human health and the environment from the effect of hazardous wastes and their disposal<sup>78</sup>. The provisions of the convention are based upon three foundational objectives;

- (i) the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
- (ii) the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management;
- (iii) a regulatory system applying to cases where transboundary movements are permissible.<sup>79</sup>

## 3.1.1 The Applicability of the Basel Convention

Arguments have been made that the Basel convention only covers transboundary movements of hazardous wastes and by that not covers ship. Such view would mean that the convention is not applicable on ships. This argument is built on the view that end-of-life ships on their way for ship breaking or ship recycling are still ships at export, meaning they are not

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<sup>77</sup> S Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, (1(2) TRADE L. & DEV. 193 (2009)), p208.

<sup>78</sup> UNEP, *The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal: Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes*, Introduction p5.

<sup>79</sup> *Ibid* p5f.

classified as waste yet<sup>80</sup>. The Basel convention defines hazardous waste in article 1(1) which says that waste under transboundary movements are classified as hazardous waste according to the convention if it is:

- (i) wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and
- (ii) Wastes that are not covered under paragraph (i) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.<sup>81</sup>

As Saurabh Bhattacharjee concludes in his article<sup>82</sup> this means that any substance that falls under the definition of waste in the convention and possess any of the characteristics specified in annex III is hazardous waste, unless already so considered in any of the concerned party's domestic legislation. Now the definition of waste and annex III becomes relevant. The definition of waste can be found in article 2(1) as:

substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law.

The word "disposal" is mentioned and that word is defined within the convention, in 2(4) as;

"Disposal" means any operation specified in Annex IV to this Convention;

In annex IV to the convention regarding disposal operations it is mentioned in section B, operation which may lead to resource recovery, recycling reclamation, direct re-use and alternative uses. Based on what is learned about ship recycling so far, it should definitely be able to fall under that category. In annex IV section B (R4) it is also explicitly stated to include recycling/reclamation of metals and metal compounds. With this in mind it should be able to conclude that a ship destined for ship recycling could be seen to fulfill the requirements of waste according to the convention. This is

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<sup>80</sup> S Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, (1(2) TRADE L. & DEV. 193 (2009)), p209

<sup>81</sup> Basel Convention art 1(1).

<sup>82</sup> S Bhattacharjee, p 209f.

supported by a decision from the Seventh Conference of Parties of the Basel Convention in 2004<sup>83</sup>. Among other things they stated that;

a ship may become waste as defined in article 2 of the Basel Convention and that at the same time it may be defined as a ship under other international rules.<sup>84</sup>

It is established that a ship can be waste, but in order to be hazardous waste there was also a demand for the waste to belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III. Annex I mentions categories of wastes to be controlled and one of these categories are wastes having as constituents, where different substances are listed, For example are asbestos<sup>85</sup> and PCBs<sup>86</sup> listed. These are substances which there can be found residues of in a ship. For this to make a ship hazardous waste the waste must also contain any of the characteristics in annex III. One of the characteristics mentioned in annex III are toxic (delayed or chronic) with the definition;

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.<sup>87</sup>

In annex III of the convention it is mentioned that the list of hazardous characteristics corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods<sup>88</sup>. Unfortunately the version from 1988 have not been available to find but both asbestos and PCBs are listed under class 9 in the latest version from 2011<sup>89</sup> and according to Bhattacharjee there are scientific studies pointing at the fact that both asbestos and PCBs are highly toxic. Concluding that a ship containing either asbestos or PCBs can be regarded

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<sup>83</sup> Ibid p210f

<sup>84</sup> *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Waste*, Seventh meeting (2004), UNEP/CHW.7/33, Annex I decision VII/26 (p63).  
<http://archive.basel.int/meetings/cop/cop7/docs/33eRep.pdf>

<sup>85</sup> Basel Convention, Annex I, Y36.

<sup>86</sup> Ibid Y39.

<sup>87</sup> Basel Convention, Annex III, UN Class 9, Code H11.

<sup>88</sup> *The United Nations Recommendations on the Transport of Dangerous Goods 2011* (ST/SG/AC.10/1/Rev.17)

<sup>89</sup> Ibid) p161.

as hazardous waste in accordance with article 1(1). There was also an amendment made to the convention that entered into force in 1998 that introduced annex VIII;

Wastes contained in this Annex are characterized as hazardous under Article 1, paragraph 1 (a), of this Convention and their designation on this Annex does not preclude the use of Annex III to demonstrate that a waste is not hazardous.<sup>90</sup>

In the list of wastes are for example asbestos<sup>91</sup> and other materials commonly contained in end of life ships, mentioned. Although this does not preclude the use of Annex III to demonstrate a waste not hazardous it does support the wastes mentioned in annex VIII to be hazardous. For example regarding PCBs the convention sets a limit for 50 mg/kg<sup>92</sup> for over which it is hazardous, but regarding asbestos there is no specific limit where it gets hazardous. Based on this should all ships containing asbestos be able to be calculated as hazardous waste and the Basel Convention should thereby be applicable to most ships.<sup>93</sup>

### 3.1.2 The Ban Amendment

The ban amendment was formally incorporated in the convention at the third COP meeting in 1995. COP stands for conference of parties and it represents the governing body of the Basel Convention and consists of all state parties. The amendment requires ratification of ¾ of the Convention parties to come into force. Currently there are 70<sup>94</sup> ratifications of the amendment but the convention has 176<sup>95</sup> parties so the amendment is not yet in force. The Ban amendment decision III/1<sup>96</sup> basically bans the export of hazardous waste for final disposal and recycling from Annex VII

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<sup>90</sup> Basel Convention, Annex VIII

<sup>91</sup> Ibid List A2, A2050.

<sup>92</sup> Basel Convention, Annex VIII, footnote 10 and 11.

<sup>93</sup> S Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, (1(2) TRADE L. & DEV. 193 (2009)), p212.

<sup>94</sup> *Ban Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, Geneva 22 September 1995, Number from July 2010, <http://archive.basel.int/ratif/ratif.html>

<sup>95</sup> Number from September 2010, <http://archive.basel.int/ratif/ratif.html>

<sup>96</sup> *Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*, Third Meeting Geneva 1995, UNEP/CHW.3/35, Decision III/1

countries to countries not listed in Annex VII. The countries listed in Annex VII are members of OECD, EC and Liechtenstein where OECD stands for Organisation for Economic Co-operation and Development.

Important to note is though that the EU has implemented both the Basel Convention and the "ban amendment" in Community law<sup>97</sup>.

### **3.1.3 Enforcement Difficulties of the Basel Convention on Ship Recycling**

Two of the main concerns about the application of the Basel Convention to ship recycling are the identification of waste, and identifying the state of export. With the identification of waste, the above mentioned discussion of a ship being waste according to art 2. of the Basel Convention but at the same time might be defined as a ship under other international rules and thus not the subject for transboundary waste legislation continues combined with the difficulty to ascertain when the intention to send the ship for recycling is developed. Ships might carry cargo on its last voyage for dismantling or the ships changes owner in the middle of the sea making it difficult to decide when the ship became waste<sup>98</sup>.

#### **3.1.3.1 State of Export**

When the decision of sending the vessel for recycling is taken at sea or when the ships calls at a port before going to recycling, this have effect on the identification of the state of export. It is doubtful if such a port state can be seen as the state of export and might not consider exercising the role as the competent authority<sup>99</sup>. Art 6(3) of the Basel Convention says among other things that

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<sup>97</sup> Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

<sup>98</sup> S Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, (1(2) TRADE L. & DEV. 193 (2009)), p213f. by referring to H. Edwin Anderson, *The Nationality of Ships and Flags of Convenience: Economics, Politics, and Alternatives*, 21 Tulane Maritime Law Journal (1996), p. 139, 163.

<sup>99</sup> *EU Assessment on ship dismantling with particular reference to the levels of control and enforcement established by the Basel Convention and the expected level of control and*

The State of export shall not allow transboundary movement to commence until it has received the explicit written consent of the State of import and confirmation of the existence of a contract between the exporter and the disposer.<sup>100</sup>

Enforce export bans are thus hard to do if the vessel has already left the territorial waters, for example the export ban in the European Waste Shipment Regulation<sup>101</sup>.

### **3.2 Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships**

In the end of 1990's the Basel Convention considered the convention to regard the issue of dismantling of end of life ships. This ended up in the Sixth Meeting of the COP to the Basel Convention in 2002 to approve Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships which was voluntarily guidelines for the ship recycling industry.

### **3.3 IMO Ship Recycling Guidelines**

The Marine Environmental Protection Committee decided on its 43<sup>rd</sup> session in 1999 to get involved with ship recycling and on its 44<sup>th</sup> session they provided a platform to discuss the role of IMO in ship recycling. In this session they also decided to establish a correspondence group whose goal was to report on current ship recycling practices and come to understanding where the IMO could contribute.<sup>102</sup>

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*enforcement to be provided by the draft Ship Recycling Convention in their entirety*, ,note 33.

<sup>100</sup> Ibid, note 10.

<sup>101</sup> Ibid, note 34.

<sup>102</sup> T G Puthucherril, *From Shipbreaking to Sustainable Ship Recycling: Evolution of a Legal Regime* (Martinus Nijhoff Publisher 2010) p134f.

This resulted in a resolution adopted by the 23<sup>rd</sup> assembly of the IMO in 2003. The assembly is noting the growing concerns about environmental safety, health and welfare matters in the ship recycling industry, and the need to reduce the environmental, occupational health and safety risks related to ship recycling and, at the same time, securing the smooth withdrawal of ships that have reached the end of their operating lives. The guidelines provide guidance to all stakeholders in the ship recycling process including States, Intergovernmental Organizations as well as commercial bodies<sup>103</sup>. When developing these guidelines the IMO took into account already existing work in this area, namely, the industry code of practice on ship recycling developed by ICS and other organizations<sup>104</sup>, guidelines to the Basel Convention which focused on the issues relating to ship recycling facilities<sup>105</sup>, and the guidelines of the ILO concerning working conditions at the ship recycling facilities<sup>106</sup><sup>107</sup>.

The guidelines note that the ship recycling industry makes a positive contribution to the conservation of energy and resources globally, and at the same time employs a large workforce, mostly people whom may be classified as otherwise unskilled. Further the guidelines say that the ship recycling industry has the potential of being sound if properly handled, but that the environmentally standards in several of the shipyards does not live up to the potential. They recognize that even if the ultimate responsibility for the conditions in the yards lies with the country for which the yard is located, other stakeholders must be encouraged to contribute to the conditions in them.<sup>108</sup>

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<sup>103</sup> IMO Guidelines On Ship Recycling, Resolution A.962(23) 2003

<sup>104</sup> Industry Code of Practice on Ship Recycling, August 2001. Internet Access <http://archive.basel.int/ships/docs/08e.pdf> last accessed 16-05-2013.

<sup>105</sup> *Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships*, Basel Convention series/SBC No. 2003/2.

<sup>106</sup> *Safety and Health in Ship Recycling: Guidelines for Asian Countries and Turkey*, International Labour Organization 2004.

<sup>107</sup> Nikos Mikelis, *Developments and Issues on Recycling of Ships*, The East Asian Seas Congress, Haikou City, Hainan Province, PR China, 12-16/12/2006, p3.

<sup>108</sup> *Recycling of Ship: the Development of the Hong Kong Convention*, <http://www.imo.org/ourwork/environment/shiprecycling/pages/Default.aspx> last accessed 22/05/2013.



The guidelines introduced something called a green passport. The green passport should be an inventory which would contain information about materials used in the construction of the ship that has the potential to be hazardous to human health or the environment. This inventory should accompany the ship throughout its life, from owner to owner, changes made to the materials and equipment should be in there as well, keeping the inventory updated, and then the final owner should deliver the passport to the recycling yard.<sup>109</sup>

### 3.4 The Hong Kong Convention

With the Basel Convention there are problems with the implementation to apply the rules on ship dismantling and thus there is a need for a legal instrument specifically construed to be applied on ship dismantling.

There was a request from the COP to the Basel Convention for such a legal instrument and the Marine Environmental Committee of the IMO agreed to the development of such at its 53<sup>rd</sup> session in 2005. The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships was finally adopted at the International Maritime Organization Diplomatic Conference held in Hong Kong in 2009. The joint ILO/IMO/BC working group on ship scrapping acted as a platform for consultation, co-ordination and co-operation with regard to ship recycling issues but it was not a forum for a joint development of the IMO convention on ship recycling<sup>110</sup>. The convention aims to address all the issues surrounding ship recycling. In the description of the convention it says that there are regulations in the convention covering;

- the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling without compromising the safety and operational efficiency of ship
- the operation of ship recycling facilities in a safe and environmentally sound manner, and;

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<sup>109</sup> Ibid

<sup>110</sup> Dr Nikos Mikelis, *Developments and Issues on Recycling of Ships*, The East Asian Seas Congress, Haikou City, Hainan Province, PR China, 12-16/12/2006, p3f.

- the establishment of an appropriate enforcement mechanism for ship recycling, incorporating certification and reporting requirements.<sup>111</sup>

Key regulations that come with the new convention are article five about survey and certification of ships and article six about authorization of ship recycling facilities. These will be further evaluated below in this paper.

### 3.4.1 Entry Into Force

The Hong Kong Convention was open for signature by any State at the Headquarters of the Organization from 1<sup>st</sup> September 2009 to 31<sup>st</sup> August 2010. The criteria for the Convention to enter into force are described in article 17 of the Convention as 24 months after the date on which the following conditions are met;

1. not less than 15 States have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with Article 16;
2. the combined merchant fleets of the States mentioned in point 1 constitute not less than 40 per cent of the gross tonnage of the world's merchant shipping; and
3. the combined maximum annual ship recycling volume of the States mentioned in point 1 during the preceding 10 years constitutes not less than 3 per cent of the gross tonnage of the combined merchant shipping of the same States.

The convention has not entered into force yet. Arjen Uytendaal, who is the director of the International Ship Recycling Association (ISRA) in his speech at the ship scrapping & recycling congress in London said that in order for the Hong Kong Convention to be adopted it needs ratification from the EU, India, China and one large flag state. A quick glance at the global market explains what he meant by this. Companies based in EU member states own 40% percent of the world's ships. China and India are two of the biggest countries in ship recycling. This added together with a large flag

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<sup>111</sup> IMO, *Recycling of Ships: The Development of the Hong Kong Convention*, <http://www.imo.org/OurWork/Environment/shiprecycling/pages/Default.aspx>

state and some other countries would be a good start to meet the criteria in article 17 of the convention.<sup>112</sup>

### 3.4.2 Basics of the Convention

With the new convention each ship need to develop and maintain an inventory of hazardous materials to keep and update during the operational life of the vessel. This is for a new built vessel; already existing ships should have a five year period to fulfill this requirement<sup>113</sup>. Keeping an inventory like this is something that reminds a lot of the green passport idea in the IMO ship recycling guidelines. According to article five of the convention shall:

Each Party shall ensure that ships flying its flag or operating under its authority and subject to survey and certification are surveyed and certified in accordance with the regulations in the Annex.<sup>114</sup>

Given this and article four of the convention where it states that the flag state have the responsibility to make sure the ship comply with the requirements set forth in the convention<sup>115</sup>, it is up to every flags state to ensure that all ships keep an inventory of the hazardous materials.

The second part of the fourth article impose an general obligation on state parties to make sure ship recycling facilities under its jurisdiction comply with the requirements set forth in the convention<sup>116</sup>. Article six<sup>117</sup> extends this responsibility for such recycling facilities to be authorized in accordance with the regulations in the annex of the convention<sup>118</sup>, for example the state parties need to make legislation, regulations and standards so that the recycling facilities can be operated in accordance with the regulations of the convention, they need to establish a mechanism for the

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<sup>112</sup> M Beck, *Ship Recycling: Green versus Greenback*, January/February 2010, [http://www.isranetwork.com/mm\\_upload/1001-Shipbreaking\\_Recycling.pdf](http://www.isranetwork.com/mm_upload/1001-Shipbreaking_Recycling.pdf)

<sup>113</sup> Hong Kong Convention, Annex, Chapter 2, Part A, Regulation 5.

<sup>114</sup> Hong Kong Convention, Article 5.

<sup>115</sup> Hong Kong Convention, Article 4.1.

<sup>116</sup> Ibid art 4.2.

<sup>117</sup> Ibid art 6.

<sup>118</sup> Ibid, Chapter 3 of the Annex : *Requirements for Ship Recycling Facilities.*

authorization of recycling facilities so they meet the requirements in the convention<sup>119</sup> and there need to be a ship recycling facility plan<sup>120</sup>.

There is a duty on both the shipowner and the recycling authority to inform about the intention to recycle a ship. The shipowner shall inform the administration so that the administration can prepare the survey and certification needed according to the convention<sup>121</sup>, meanwhile the recycling facility needs to inform its competent authority<sup>122</sup> and then when they have acquired the international ready for recycling certificate, they also need to inform the same authority the start date for the recycling including a copy of the recycling certificate<sup>123</sup>. When the recycling is finished a statement of completion also needs to be sent to the authority<sup>124</sup>.

Dr Nikor Mikelis who is now an independent marine consultant, held in 2012 a presentation at Bangladesh University of Engineering & Technology with the topic *The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, where he among other things identified the main elements of the underlying mechanism of the Hong Kong Convention. What he pointed out was;

- Inventory of Hazardous Materials (IHM) (Parts I, II, III; different scope for new ships and for existing ships)
- International Certificate on Inventory of Hazardous Materials (ICIHM) (issued to ship by flag State after initial or renewal survey; valid for 5 years)
- Ship Recycling Facility Plan (SRFP) (the document describing the system and processes of the yard for ensuring safety and environmental protection)
- Document of Authorization to conduct Ship Recycling (DASR) (issued to the yard by the recycling State's Competent Authority; valid up to 5 years)
- Ship Recycling Plan (SRP) (plan prepared by recycler based on ship's IHM and other particulars; usually approved by competent Authority)

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<sup>119</sup> Ibid, Annex, Chapter 3, Regulation 15

<sup>120</sup> Ibid, Regulation 18

<sup>121</sup> Ibid, Annex, Chapter 4, Regulation 24.1.

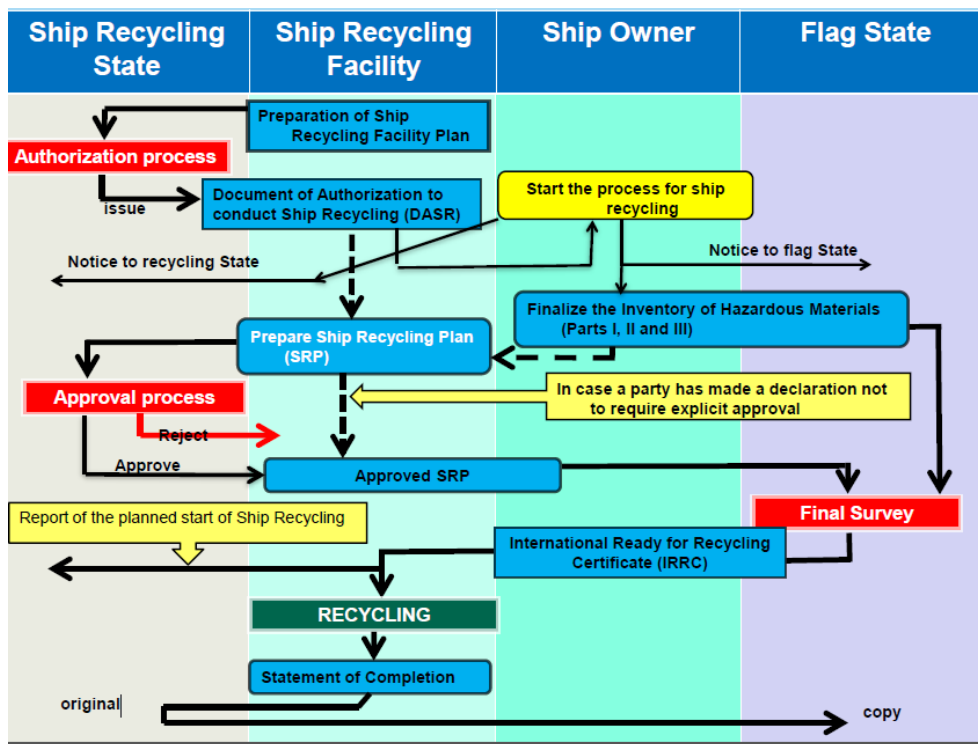
<sup>122</sup> Ibid, Regulation 24.2

<sup>123</sup> Ibid Regulation 24.3.

<sup>124</sup> Ibid Regulation 25

- International Ready for Recycling Certificate (IRRC) (issued to ship by flag State after final survey on basis of IHM and SRP)<sup>125</sup>

This lays down a good description of the different control mechanism the HKC contains, and there is also a scheme of it all to get a sense of how it in the end is going to work.



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Several guidelines have also been developed and adopted to assist the states. When it comes to the potential early implementation of the technical standards in the convention there are guidelines for: the development of hazardous materials, development of the ship recycling plan, safe and environmentally sound ship recycling, and the authorization of ship recycling facilities<sup>127</sup>. There are also two guidelines adopted to assist the states with the implementation after the convention enters into force and

<sup>125</sup> Dr Nikos Mikelis, *The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, (Seminar on Ship Breaking and Ship Recycling in Bangladesh and Compliance with International Regulations, Bangladesh University of Engineering & Technology, Dhaka 17 January 2012), Internet Access <http://www.buet.ac.bd/name/alpha/ShipBreakingandRecyclingSeminar17012012.pdf>, last accessed 2013-04-03.

<sup>126</sup> Ibid

<sup>127</sup> In turn adopted by resolution MEPC.197(62), MEPC.196(62), MEPC.210(63), MEPC.211(63).

they concern: the survey and certification of ships, and the inspection of ships<sup>128 129</sup>.

### 3.4.3 Critique to the Convention

Even though the convention is not yet in force, criticism has been raised to parts of it or to the fact that some parts has been left out of the convention and these will be mentioned below.

#### 3.4.3.1 Beaching

Beaching is the most common main type of ship recycling used in South Asia. Basically it means that the ship is either run or towed on high-tide ashore on the beach from where the ship is later dismantled. The other two main type of ship recycling are berthing the vessel and dismantling alongside hard jetties, and berthing and dismantling the vessel in deep water “slots” or graving docks. Beaching is described as the hardest to ensure high standards of worker safety and environmental control in a report of the correspondence group to the Marine Environment Protection Group of the IMO<sup>130</sup>. The EU strategy for Better Ship Dismantling recognized beaching as globally condemned as incapable of safety for workers and adequate protection for the marine environment from ship borne pollutants<sup>131</sup>. The NGO platform on shipbreaking does also point out flaws by using beaching as method, they point out four fatal flaws with the method and they are;

- No access to emergency response. On a beach it is impossible to rapidly bring in emergency response equipment, including fire-fighting equipment and vehicles, ambulances and cranes to remove persons hurt inside the hull and alongside the vessel in a shifting and soft tidal surface;
- No heavy lifting equipment. The sand on a beach makes it impossible to set up cranes alongside the hulls to lift heavy cut sections of a ship and prevent heavy objects from falling on workers or directly into the marine environment;

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<sup>128</sup> In turn adopted by resolution MEPC.222(64), MEPC.223(64).

<sup>129</sup> IMO, *Recycling of Ships: The Development of the Hong Kong Convention*, <http://www.imo.org/OurWork/Environment/shiprecycling/pages/Default.aspx>

<sup>130</sup> Recycling of ships: Report of the Correspondence Group: Submitted by the Coordinator of the Correspondence Group, IMO/MEPC 46/7, 18 January 2001, Annex p7.

<sup>131</sup> EU strategy for better ship dismantling, European Parliament resolution of 26 March 2009, Note E.

- No pollution containment. It is impossible to contain pollution on a beach. When hulls of ships are breached or cut, they release persistent organic pollutants, heavy metals and oils which permeate the sand and contaminate surface and ground water without the possibility of remediation;
- No pollution containment. It is impossible to contain pollution on a beach. When hulls of ships are breached or cut, they release persistent organic pollutants, heavy metals and oils which permeate the sand and contaminate surface and ground water without the possibility of remediation;<sup>132</sup>

According to the NGO shipbreaking platforms annual report regarding 2011 over 40 persons were killed on the beaches of India, Pakistan and Bangladesh<sup>133</sup>. All this information points to the risks involved with beaching as a method. The Hong Kong Conventions chooses not to address this issue and according to Mikelis such a ban would be meaningless since sixty-five to seventy percent of the world's recycling capacity is based on beaching. Instead as he says the HKC sets up requirements that will reduce the risks involved and set safe standards for recycling activities no matter what method is used.<sup>134</sup>

### 3.4.3.2 Pre-Cleaning

The Hong Kong Convention does not address the issue of pre-cleaning or decontamination of ships before its last journey<sup>135</sup>. This goes against the polluter pays principle. This principle means that the person who introduces a waste should also be the one responsible to take care of it. In the situation of ship recycling and the polluter pays principle this would mean that the shipowner has the responsibility to strip the vessel of all the hazardous materials in the flag state before exporting it to the recycling facility. With the Hong Kong conventions this responsibility instead falls upon the recycling facility since the facility, as long as having required authorization

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<sup>132</sup> Off the Beach!: Safe and Green Ship Dismantling, NGO Platform on Shipbreaking 2009

<sup>133</sup> Annual Report 2011, NGO Platform on Shipbreaking 2012.

<sup>134</sup> N Mikelis, *The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, (Seminar on Ship Breaking and Ship Recycling in Bangladesh and Compliance with International Regulations, Bangladesh University of Engineering & Technology, Dhaka 17 January 2012), Internet Access <http://www.buet.ac.bd/name/alpha/ShipBreakingandRecyclingSeminar17012012.pdf>, last accessed 2013-04-03.

<sup>135</sup> T G Puthucherril, *From Shipbreaking to Sustainable Ship Recycling: Evolution of a Legal Regime* (Martinus Nijhoff Publisher 2010) p176.

are allowed to conduct the whole recycling process including removal of the hazardous waste<sup>136</sup>.

Pre-cleaning of the vessel can be done without affecting the constructive elements, meaning the vessel does not have to be towed to the recycling yard afterwards. If pre-cleaning of the vessels would take place before they are sent to the recycling yards this would both simplify the management of the hazardous waste and improve the safety of the workers in the recycling yards.<sup>137</sup>

### **3.4.3.3 Change of the Market**

When the HKC comes into force ships flying the flag of a party state can only be scrapped in an authorized facility in a party state. Given this should recycling facilities in a party state only recycle vessels that are registered in a party state. Voices have therefore been raised that this will change the market of ship recycling<sup>138</sup>. The facts are though that regulation 17 sub 2 of the HKC says that;

Ship Recycling Facilities authorized by a Party shall, for ships to which this Convention applies, or ships treated similarly pursuant to Article 3.4:

1. Only accept ships that:
  1. comply with this Convention; or
  2. meet the requirements of this Convention;
2. only accept ships which they are authorized to recycle; and
3. have the documentation of its authorization available if such documentation is requested by a shipowner that is considering recycling a ship at that Ship Recycling Facility.

Given this can recycling facilities in a party state recycle both ships registered in a party-state and ships not registered in a party-state if they meet the requirements of the convention. According to Dr Nikos Mikelis is the estimated costs for a non-party ship to meet the requirements of the

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<sup>136</sup> S Bhattacharjee, *From Basel to Hong Kong: International Environmental Regulation of Ship-Recycling Takes One Step Forward and Two Steps Back*, (1(2) TRADE L. & DEV. 193 (2009)), p227f.

<sup>137</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p54.

<sup>138</sup> *Ibid*, p52.



convention not higher than 30 000 USD. With a Panamax vessel at around 10 000 LDT this would result in an extra cost at 3USD/LDT.<sup>139</sup>

For a vessel registered in a party-state who does not want to be recycled in such state there is the option of change of registration. According to Mikelis is the cost of a ship to change flag around 10 000USD, based on a Panamax vessel at around 10 000 LDT this means a cost of 1USD/LDT<sup>140</sup>. Ships changing flag before being sold for recycling is something that is not so uncommon, a report from the World Bank gives data from ships demolition databases in 2008 that shows that among the twenty-five most common flag states when it is time for de-registering of a vessel there is countries like Tuvalu, St. Kitts-Nevis, St. Vincent & Grenadines, Mongolia, Comoros, Cambodia and Dominica. According to the report these seven countries stood for less than 2 percent of the world's fleet in service that year and they are not among the 25 biggest flags were tonnage is registered, but they stood for almost 20% of the recycled or deregistered tonnage that year<sup>141</sup>. These numbers clearly indicates some sort of movement of registration before the vessels are finally de-registered, meaning before they are either recycled or lost at sea.

### 3.5 Comparison of the two Conventions

In article 11 of the Basel Convention it says that when parties to this convention may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes, with parties or non-parties to the Basel Convention, this new agreement or arrangement must provide stipulations that are no less environmentally sound as the ones in the Basel Convention<sup>142</sup>, meaning that the Hong Kong convention must provide provision no less environmentally

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<sup>139</sup> N Mikelis, *Hong Kong Convention: The origins of a convention*, World Maritime University, Malmö, Sweden, 6 February 2012.

<sup>140</sup> Ibid

<sup>141</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p52

<sup>142</sup> Basel Convention, art11.

sound, for parties to the Basel Convention to be able to join. Since the Basel Convention as already stated have 170 parties this is an important provision for the Hong Kong Convention to fulfill. The issue of equivalency of the two conventions was discussed at COP 10 of the Basel Convention in Colombia 2011. Several different views on the matter was shown by the representatives at the meeting, some pointed that the two conventions were different in scope, approach and degree of maturity, some said a further comparative analyses was needed. Those supporting the equivalency of the two conventions put up arguments like the historic failure of the Basel Convention to deal with the issue, the fact that the Hong Kong Convention was adopted specially to deal with ship recycling, and the fact that it had control mechanisms specifically tailored to both ships and ship recycling facilities, meanwhile those with the opposite view pointed out its relative lack of focus on the transboundary movement of waste, its lack of consideration of the specific needs of developing countries and its weaker enforcement provisions etc<sup>143</sup>. This lead to Decision BC-10/17 adopted by the COP, stating that there was no agreement on the matter of equivalency of the two conventions, but encouraging ratification of the Hong Kong Convention by states for it to come into force, and acknowledges the continuing role of the Basel Convention<sup>144</sup>.

The European Union came with their preliminary assessment about the issue of equivalency in 2010. As a conclusion of the two conventions they stated that;

...it may be said that the system of control and enforcement for transboundary movements of hazardous waste through the Prior Informed Consent Procedure of the Basel Convention is strict and functioning relatively well for most hazardous wastes, but is difficult to enforce in relation to end-of-life ships. The Hong Kong Convention takes a rather different approach to control and contains other elements of control and

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<sup>143</sup> Report of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal on its tenth meeting, UNEP/CHW.10/28 1 November 2011, p15.

<sup>144</sup> Ibid ,Decision BC-10/17: p53.

enforcement which are more adapted to the specificities of the maritime world.<sup>145</sup>

Regarding equivalency they said that it could be concluded that the Hong Kong Convention appears to provide a level of control and enforcement at least equivalent the one provided in the Basel Convention for ships accounted as waste in the Basel Convention compared to the ships that the Hong Kong Convention applies and the ships that are to be treated similar according to article 3(4) of that Convention.<sup>146</sup>

### **3.6 International Organization for Standardization**

The ISO is a developer of voluntary international standards. For example in 2009 the ISO published the 30000- series on management systems for ship recycling. This series specifies requirements for a management system meaning how to enable a ship recycling facility to develop and implement procedures, policies and objectives in order to be able to undertake safe and environmentally sound ship recycling<sup>147</sup>. What is important to note is that it is voluntarily standards but at the same time they could be seen as quality assurance if the recycling facility holds the different certificates and through that be an indication of how environmentally sound that particular facility are in their work.

### **3.7 Cost of Compliance with the Hong Kong Convention**

To comply with the HKC costs money for all concerned parties. Green ship recycling according to the convention requires standardized methods, trained workers with good equipment, infrastructure, higher level of environmental concern etc. In a report from the World Bank in 2010

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<sup>145</sup> Submission of the EU and its Member States presenting the table and preliminary assessment pursuant to decision OEWG-VII/12 (environmentally sound dismantling of ships ), art 10.

<sup>146</sup> Ibid, art 11.

<sup>147</sup> Ship Recycling: Practice and Regulation Today, Lloyd's Register June 2011, p3.

estimated figures are shown what it would cost for Bangladesh and Pakistan to achieve minimum compliance with the HKC<sup>148</sup>. For Bangladesh minimum compliance would mean extra costs at 50 million USD or 9-11 USD/LDT if they are to be solely born by the ship breakers. For Pakistan the estimated number may reach more than 80 USD/LDT and according to the report that might eliminate the basis for ship breaking in Pakistan if all costs are to be paid by the ship breakers<sup>149</sup>. In a NGO report from 2005 called “The Ship Recycling Fund, Financing environmentally sound scrapping and recycling of sea-going ships” where the demand for scrapping and the additional costs related to the introduction of clean and safe scrapping has been matched, the costs to comply with green shipbreaking lands somewhere between 25-50 USD/LDT<sup>150</sup> depending on what kind of vessel it is<sup>151</sup>. As shown there are quite big differences in the estimated costs involved, depending on the current situation in the different countries with different prerequisites as to current methods and level of extra needed infrastructure to comply with green shipbreaking. In for example China where the method currently used is alongside shipbreaking the extra costs are estimated at 10-40 USD/LDT based on scrapping both containerships and tankers<sup>152</sup>. When it comes to the future situation in Bangladesh it is estimated in the report that it is the high volatility of the scrap steel price and the extra premium price paid to the shipowners that risk the business to be non-profitable, rather than the extra compliance costs of green shipbreaking. According to the report historic data show that the extra premium paid for end of life ships in Bangladesh compared with Pakistan is somewhere between 10-30 USD/LDT which would be a higher costs than

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<sup>148</sup> The estimate is based on the following assumptions: annual costs of operation at 5 percent of the total investment costs, a loan interest rate of 10 percent, and annual recycling activity as in 2008. The burden is assessed on the basis of extra costs per LDT for the period 2010–30, assuming today’s market share.

<sup>149</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p46ff.

<sup>150</sup> This is based on the assumption that the pre-cleaning would take place at breaking yard in Asia. Pre-cleaning costs in western countries would show higher cost levels.

<sup>151</sup> *The Ship Recycling Fund, Financing environmentally sound scrapping and recycling of sea-going ships*, ECORYS Transport (Client: Greenpeace), Rotterdam 2005, p22ff.

<sup>152</sup> Ibid

the estimated compliance costs with the HKC in Bangladesh<sup>153</sup>. To put the estimated compliance costs from Bangladesh and Pakistan into context there are number shown in the report of estimated profit of breaking a 14800 LDT Panamax vessel in the countries, for Bangladesh that would revenue a profit of 62 USD/LDT and for Pakistan that number would be 11 USD/LDT<sup>154</sup>. These numbers explain why there would be more room for extra costs in the budget for scrapping a vessel in Bangladesh compared with Pakistan

### 3.8 The European Union

The recycling of ships is currently governed within the European Union by the Waste Shipment regulation. This regulation implements the requirements of The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal, it also implements the ban amendment prohibiting the export of hazardous waste outside the OECD even though the ban amendment has not yet entered into force at international level. The waste shipment regulations makes EU-Flagged ships classified as hazardous waste when they are sent for dismantling, and with the implementations of the ban amendment thereby only allowed to be dismantled within countries of OECD. The effect of this regulation has though not been the desired. In 2009 more than 90% of the European ships were dismantled in recycling facilities in non OECD countries and the legislation is thus circumvented<sup>155</sup>. This happens according to the EU due to the problems of applying the procedures of the waste shipment regulations and the problems for the relevant authorities to intervene. Examples of how this is happen are:

- Shipowners decide to send the vessel for dismantling when the ship is located in international waters or waters under the jurisdiction of the recycling state

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<sup>153</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p50.

<sup>154</sup> Ibid p64.

<sup>155</sup> *Environment: Commission proposes tighter laws on ship breaking*, European Commission – Press Release IP/12/310.

- the shipowner does not declare his intention of recycling a ship when the ship leaves an EU-port for its last voyage to an Asian port before going to dismantling
- The ship is sold to another operator for continuing to sail but is instead transferred to a recycling facility<sup>156</sup>

The European commission has adopted a proposal of a new ad-hoc regulation with the intent to replace the Waste Shipment Regulation. This proposal is addressed for ships which will fall under the scope of the Hong Kong Convention and is based on the system of control and enforcement of that Convention. It will allow ships to be recycled in non-OECD countries as long as the recycling facilities comply with requirements. These requirements is based on the technical requirements of the Hong Kong convention and some extra requirements in order to better protect the human health and environment, and to ensure that all the hazardous waste is treated in a sound manner. The facilities that meet these requirements will be presented in a European list. The objective is to reduce the negative impact that is currently linked to the recycling of EU-flagged ships. It would bring into force an early implementation of the requirements of the Hong Kong Convention and jointly with the proposal for regulation there is a proposal for a European Council decision authorizing member states to ratify or to accede to, in the interests of the European Union, the Hong Kong Convention<sup>157</sup>. The proposal is currently awaiting parliament 1<sup>st</sup> reading / single reading / budget 1<sup>st</sup> stage<sup>158</sup> on its way through the legislative procedure and can thus here only be considered as a proposal for what might take form as a regulation in the future. What can be regarded as a fact from this proposal is the awareness of the European Union of how the ship recycling industry works today, the need for the Hong Kong Convention to come into force and that since 17% of the world tonnage is under EU-Flag it

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<sup>156</sup> *Proposal for a Regulation of the European Parliament and of the Council on Ship Recycling*, European Commission, 2012/0055 (COD), p3

<sup>157</sup> *Ibid*, p3ff.

<sup>158</sup> Procedure file **2012/0055(COD)** Ship Recycling  
<http://www.europarl.europa.eu/oeil/popups/ficheprocedure.do?lang=en&procnum=COD/2012/0055#keyPlayers>, last accessed 22-04-2013.

is a priority for the European Union to improve the practices of ship dismantling worldwide<sup>159</sup>.

The European Parliament had a vote of the proposal the 18<sup>th</sup> of April 2013 where they adopted amendments on the proposal for a regulation of the European Parliament and of the Council on ship recycling. One of the new things in this amendment was Recital 1a where the parliament would like to add;

(1a) The predominant method of dismantling ships through the so-called ‘beaching’ method does not and cannot represent safe and sound recycling and should therefore no longer be tolerated.<sup>160</sup>

If this proposal in the end enters into force it would be the end of recycling EU-registered ships with the beaching method, but EU-registered ships would be allowed to be recycled outside of the OECD as long as that specific recycling yard is obtained in the European list.

### 3.9 Conclusion

The Basel Convention is the traditionally used convention and legal framework when it comes to ship recycling. This convention does however not concern the whole operation of ship recycling that the business need to be a well working green business, hence the need for a uniform globally used set of rules that covers the whole operation of recycling a ship with standardized methods. The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships is developed to fill that gap but it has not yet entered into force. What is clear is that the current practice of ship recycling does not comply with the rules set out in the Hong Kong convention and what is considered to be green ship recycling. Meeting the requirement of such costs money, it needs infrastructure, trained and well equipped workers etc., the question is who are to bare these

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<sup>159</sup> *Environment: Commission proposes tighter laws on ship breaking*, European Commission – Press Release IP/12/310.

<sup>160</sup> Amendments adopted by the European Parliament on 18 April 2013 on the proposal for a regulation of the European Parliament and of the Council on ship recycling (COM(2012)0118 – C7-0082/2012 – 2012/0055(COD)), T7-0182/2013, recital 1a.

costs. The recycling yards want to make as good profit as possible doing the work they do and the shipowners want to get paid as much as possible for their end of life ships. For the countries where the yards are located the business of ship recycling is a good source of income, not only do the yards themselves generate profit and employ a lot of workers, but the products of their business do so also. In for example Bangladesh data from 2005-2008 show the consumption of steel to be 5 Million Tons, their steel production is 2.2-2.5 M Tons and the amount of steel generated from ship recycling is up to 1.5 M Tons. Based on those numbers the contribution of steel from the ship recycling industry to the production of steel is 50% and to the consumption of steel between 20-25%. The ship recycling industry is thus important for Bangladesh economy as a whole.<sup>161</sup>

But is it reasonable that the costs of green ship recycling are totally born by the countries where the recycling takes place. The logical answer to that question would be no. There are probably few other countries that would want the business to take place in their backyard, and even if so such operation would probably cost a lot more. Figures show the estimated disadvantage of such operation in Turkey to be somewhere around 155 USD/LDT and in the EU around 400 USD/LDT compared with Bangladesh and Pakistan<sup>162</sup>. This option would thereby cost even more than the option of paying for the additional costs for green ship recycling. The rest of this thesis paper will therefore look into the different ways, for which these extra costs of green ship recycling could be covered.

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<sup>161</sup> M Sarraf, F Stuer-Lauridsen, M Dyoulgerov, R Bloch, S Wingfield, R Watkinson, *The Ship Breaking and Recycling Industry in Bangladesh and Pakistan*, The World Bank 2010, Report No 58275-SAS, p17.

<sup>162</sup> Ibid, p53.



## 4 Ship Dismantling Fund

The Hong Kong Convention comes with new requirements for the ship dismantling process compared with current practices. As already stated this requires investments in the places where the current ship dismantling takes place in the world, infrastructure needs to be improved, workers need training and equipment etc. Implementing these new standards means that it is going to cost more money to dismantle a vessel in the future when the Hong Kong Convention comes into force or when the requirements from that convention is started to be applied, for example through the proposal from the European Union. Higher requirements for the ship dismantling process means higher costs for the ship dismantling process, the question is who or whom that are to bear that costs. This chapter will look into the different proposals that exist for how these costs are to be born and collected through a dismantling fund

### 4.1 Ecorys Study

In 2003 Greenpeace commissioned a report from ECORYS which resulted in a report from 2005 with the name *The Ship Recycling Fund: Financing environmentally sound scrapping and recycling of sea-going ships*. This report discusses whether and how changes can be applied to the market system through the introduction of a financing mechanism that would result in an acceptable way of disposing of obsolete vessels<sup>163</sup>. The report conclude that recycling end of life ships in an appropriate way without an financial mechanism would either lead to lower payment to the shipowner for the ship or an increase in the price that the scrapper needs from the steel industry. The report describes this situation as a deadlock<sup>164</sup>. The report does further conclude that the introduction of regulation for better shiprecycling without a parallel financing mechanism could lead to a circumvention of the rules and an increase in using substandard scrapping

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<sup>163</sup> *The Ship Recycling Fund, Financing environmentally sound scrapping and recycling of sea-going ships*, ECORYS Transport (Client: Greenpeace), Rotterdam 2005, p 9.

<sup>164</sup> Ibid p17

yards. The solution could be to introduce an indirect financing mechanism where the financing of environmentally sound recycling is raised either during the lifetime of the ship or at the new built stage of the ship and are kept in a fund.<sup>165</sup>

## 4.2 Milieu & COWI study

In 2009 did another report come out on the topic of ship dismantling fund. The title was *Study in relation to options for new initiatives regarding dismantling of ships: Note on the ship dismantling fund Pros and cons of the three options* and was made by the COWI Consortium (Milieu Ltd)<sup>166</sup>. The report present scenarios for an EU ship dismantling fund as a part of an early transposition to the HKC and if the different scenarios can be applied on a global level. It also states that the main objective for an EU ship dismantling fund is to ensure that ships with a strong link to the European Union is dismantled in a safe and environmentally sound facility and using a fund as a financing mechanism could be the proper incentive for the stakeholders in the business to do so<sup>167</sup>. The aim of the report is to facilitate the internal discussion of the European commission<sup>168</sup> and the report does further conclude that a fund can either be paid for by the tax payers or by the users, in this case the shipping industry. The waste policy of the EU builds on the polluter pays principle which points to the latter of the two examples of who should be responsible to pay<sup>169</sup>.

## 4.3 Financial Structure of a Fund

The financial structure of a fund can be construed in three ways, Endowments, Sinking Fund, and Revolving Fund. These different structures

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<sup>165</sup> Ibid p26

<sup>166</sup> *Study in relation to options for new initiatives regarding dismantling of ships: Note on the ship dismantling fund Pros and cons of the three options*, Milieu Ltd. & COWI, Brussels, August 2009

<sup>167</sup> Ibid p7.

<sup>168</sup> *Financial mechanisms to ensure responsible ship recycling: A research paper prepared for the NGO Shipbreaking Platform*, Profundo Economic Research, January 2013, p14.

<sup>169</sup> *Study in relation to options for new initiatives regarding dismantling of ships: Note on the ship dismantling fund Pros and cons of the three options*, Milieu Ltd. & COWI, Brussels, August 2009,p7.

are described in both the ECORYS report and the Milieu and COWI report as;

- **Endowments** which invest their capital and use only income from those investments to finance activities;
- **Sinking funds** which are designed to disburse their entire principal and investment income over a fixed period of time, or
- **Revolving funds** that receive resources on a regular basis – e.g. proceeds of special taxes, levies, charges – which replenish or augment the original capital of the fund and provide a continuing source of money for specific activities.<sup>170</sup>

Both endowments and a sinking fund requires big investments in initial capital, meanwhile a revolving fund receives resources on a regular basis. The revolving fund also corresponds well with the polluter pays principle so both reports view is that this is the most appropriate model.<sup>171</sup>

## 4.4 Financing Mechanism

The next question to look at is how the money in the fund should be raised. The options are to either raise the contributions at the construction phase of the vessel or during the lifetime of the vessel.

### 4.4.1 Recommendations from the ECORYS report

Examples according to the ECORYS report on how the money to the fund could be raised are;

- A surcharge on the selling price of vessels;
- A fee on registration of the vessel (registration of the IMO number).
- Include charging in the insurance premiums of the ship
- Levying by Flag States<sup>172</sup>

Both the first and the second option are considered in connection with the construction phase of the vessel where the second options is viewed as the

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<sup>170</sup> ECORYS p26, Milieu and COWI p9.

<sup>171</sup> Ibid

<sup>172</sup> Ecorys p27ff.

most feasible. This is because IMO could introduce charges on the registration of the vessel. The system of assigning a vessel with an IMO number is though carried out by Lloyd's Register which is a private company, but according to the report there is the possibility of having a direct link since the IMO number also has to appear on flag state issued certification for the vessel<sup>173</sup>. The ECORYS report has estimated the additional cost related to safe and clean scrapping for the fund to cover to be 220 – 440 million USD per year the first five years<sup>174</sup>. When this report came out the annual output of gross tonnage from the new building market was 25 million GT. Combining these numbers gives 8.8 USD/GT for the requirement of 220 Million USD and 17.6 USD/GT for the requirement of 440 million USD. At the current level of new building GT from when this report was presented it would correspond to an increase in price per ship from less than 1% to 4% depending on the type of vessel<sup>175</sup>.

The negative aspects of this model would be that all responsibility of financing the fund would be put on the new built ships and not on the already existing fleet, creating a competitive disadvantage for the new owners with a price that is not in level with the average price if all ship were to pay for the capital needed to support the fund<sup>176</sup>. This disadvantage does not exist if the fees are levied during the lifetime of the ships. Here the report had two options on how to collect the money, include charging in the insurance premiums of the ship, which will be discussed in the next chapter of the thesis, and levying by flag states, which will be discussed below.

Levying the contribution through the flag state would be possible since the flag state is the only body with power to collect money through registration. This would however require new requirements and regulations in respect of the flag states since all flag states need to cooperate and pass on the capital to the fund. In July 2001 the merchant fleet of vessels, that each was bigger than 1000 GT, combined corresponded to 521 million GT. If the earlier

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<sup>173</sup> Ibid p28.

<sup>174</sup> Ibid p24.

<sup>175</sup> Ibid p29

<sup>176</sup> Ibid p28

mentioned figure 220-440 million USD were to be shared by these 521 million GT the cost for each GT would be 42-84 US Cents per year<sup>177</sup>. The disadvantages with this model would though be more complicated control mechanisms<sup>178</sup>.

## **4.4.2 Recommendations from the Milieu and COWI report**

In the Millieu and COWI report three options of financing mechanisms was given,

- Up front environmental charge for new built vessels
- Recurrent charges on shipping industry
- Charges on ships calling at EU Ports

Each of these options will be discussed further below

### **4.4.2.1 Up front environmental charge for new built vessels**

The argumentation for this alternative goes very much like the arguments for a fee on IMO registration as discussed in the ECORYS report. They propose the same way of payment when linking the charge to registration of IMO number but this report also puts in the EU perspective and the connection with the polluter pays principle. The solution does not correspond well with the polluter pays principle since only new vessel would pay and not the already existing fleet. The model has the same negative aspects as the ones already discussed in the ECORYS report but it would also mean an negative competition aspects for the new vessel registered in a European country compared with the same vessel being registered in a non-European country since this report mainly looks at an EU fund<sup>179</sup>.

### **4.4.2.2 Recurrent charges on shipping industry**

This option would take the form of an annual tax on individual level for both new and old vessels which would correspond well with the polluter

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<sup>177</sup> Ibid p31.

<sup>178</sup> Ibid p30.

<sup>179</sup> Milieu and COWI p10.

pays principle. With this option funds will be raised during the entire life of the vessel and be based on the tonnage of the ship. The control mechanism would probably be complicated but could be simplified by connecting the charge to either i) the insurance premiums or ii) levying by flag states.

This model could lead to a distortion between the European shipping industry and the non-European shipping industry if the tax are to be significant and ships are for that reason re-flagged. There is also the problem of applying this model in a global form since there are not efficient tax systems in all countries in the world.<sup>180</sup>

#### **4.4.2.3 Charges on ships calling at EU ports**

The idea with this model is that all ships calling at a European port pays a charge based on tonnage of the vessel, such a charge would go well with the polluter pays principle. Port fees are already today an integral part of operating a port and this would be an extra charge added to that fee. Tonnage data of each vessel is already part of the ports information system so it would not be a big problem to calculate what each vessel should pay. The money could then be transferred to the fund from the European ports or through the tax-authorities As the rest of the options there is the concern of negative aspects for EU ports vis-à-vis non EU ports, especially for the ports in the outer parts of the European Union. The report does though state that distort of competition is unlikely since there a few alternative ports when the goods needs to be delivered to the EU. What is of more concern is the potential global perspective of this model since not all countries have an efficient tax-system if this way of transferring the money is chosen<sup>181</sup>.

The annual funding requirement is in this report estimated to 50-300 M USD which is based on the estimated additional USD/LDT for green ship recycling to be between 25-150 with a central estimate at 100. The annual number of ships bigger than 500 GT calling at EU ports is estimated at 780 000 and the annual combined GT of these ships calling at EU ports is estimated at 3.7 billion GT. Based on all these numbers the calculated extra

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<sup>180</sup> Ibid p10f.

<sup>181</sup> Ibid p11f.

charge is estimated between 0.01 USD/GT and 0.06 USD/GT with the central estimate at 0.04 USD/GT or translated to EUR 0.03 EUR/GT. By examples given in the report the calculated extra cost for a 22 000 GT container vessels translate to a 7% increase in port fees in Tallinn and a 10% increase in port fees in Rotterdam<sup>182</sup>

## 4.5 Disbursement mechanism

For a fund to work well there also needs to be a disbursement mechanism in place that works well to pay out the money, aimed for in this case, the green recycling. This money could either be paid out to the shipowner or direct to the recycling yard. The Profundo report from 2013, which is prepared for the NGO Shipbreaking Platform, state that the best would be for the money to be paid out to the recycling yards upon proof of responsible recycling at a facility that is authorized by the European Union. Argument for this model is that the recycling facilities are the ones who have increased costs related to the responsible recycling and that the disbursement should correspond to that increase in costs<sup>183</sup>.

The Milieu and COWI think that the money should be disbursed to the shipowner who can prove that his ship was recycled at a green facility. The disbursement should correspond to the marginal loss in net-revenues that occurs by choosing environmentally sound scrapping facilities. The objective is that the amount of money paid out is enough to make green ship recycling competitive<sup>184</sup>. The ECORYS report does not define if the money should be paid out to the shipowner or to the yard<sup>185</sup>.

## 4.6 The EU proposal

The European Union proposal on a ship recycling fund is part of the Proposal for a Regulation on Ship Recycling. The committee of the

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<sup>182</sup> Ibid p21f.

<sup>183</sup> Profundo, p18.

<sup>184</sup> Milieu and COWI p17ff.

<sup>185</sup> ECORYS p33.

European Parliament on the Environment, Public Health and Food Safety and its rapporteur Carl Schlyter presented a draft report in November 2012 called 2012/0055(COD). The draft report suggests an additional fee at 0.03 €/GT to be levied by the port from both EU-ships and non EU-ship calling at a port or anchorage within member states territory. This money should be obtained by the member states preferably through the general system in which they obtain taxes and other charged from the ports. The money should then be transferred to the fund by the member states no later than two month after the recovery of the levy. The money shall then be disbursed to recycling facilities which is obtained on the European list for the recycling of ship flying the flag of a member state. The ship must have been flying a member state flag for at least two years before the approval of the recycling plan and the premium paid out to the recycling facility is set at a minimum of 30 €/LDT. The objective of the fund is to make recycling corresponding to the requirements of the report economically viable and the Commission shall have the powers to adopt the level of the levy to reach this objective. The estimated price/GT is the same as used in the Milieu and COWI report and the figures is based on a Commission study from 2009 and estimated to collect 120 million €/year. The report also writes that this shall not be seen as the perfect formula for a fund but rather as a working proposal for further refinement.<sup>186</sup>

The above was a draft report and the actual report was delivered in March 2013. Several changes were made from the draft report and the most important ones will be mentioned below.

Both EU-ships and non EU-ships will still be charged when calling at an EU port but changes were made to how they have to pay. The report from 2013 suggest each vessel to pay a price at 0.05 €/GT per call except from vessel that has paid an annual levy or have deposited a financial guarantee

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<sup>186</sup> Schlyter, C., *Draft Report on the proposal for a regulation of the European Parliament and of the Council on ship recycling (COM(2012)0118 – C7-0082/2012 – 012/0055(COD))*, [PE498.083](#) European Parliament Committee on the Environment, Public Health and Food Safety, 20 November 2012, p30ff.



according to article 5b. The annual levy shall be set at a level so that twenty equal annual payments correspond to a total of 50 €/LDT. After twenty annual payments, that ship shall be exempted from any further payments. The recycling fund then has to pay a premium to a recycling facility that is obtained on the European list when recycling both an EU ship and a non-EU ship that have paid at least two annual levies. That premium shall be set at 35 €/LDT. Also ships that have been abandoned within the European Union for at least two years shall recycling facilities on the European list receive this premium, if it was not possible to find the owner and hold him responsible.<sup>187</sup>

The other option with a financial guarantee is suggested to be a single payment to the fund equivalent to 35 €/LDT and after this the ship shall not be liable to pay any recycling levy mentioned in article 5a. The guarantee shall then be released within two months after the ship has been recycled at a recycling facility from the European list.<sup>188</sup>

#### **4.6.1 Decision by the European Parliament**

The European Parliament did 18<sup>th</sup> April 2013 vote against the European Committees proposal for an EU fund with the numbers 299 against and 292 in favor. An amendment has though been put forward to the European Committee by MEP Christofer Fjellner asking the committee to submit a legislative proposal by 2015 on how to make green ship recycling more attractive.<sup>189</sup>

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<sup>187</sup> Schlyter C, *Report on the proposal for a regulation of the European Parliament and of the Council on ship recycling (COM(2012)0118 – C7-0082/2012 – 2012/0055(COD))*, European Parliament Committee on the Environment, Public Health and Food Safety, 28 March 2013, A7-0132/2013, p23ff.

<sup>188</sup> Ibid p26ff.

<sup>189</sup> Dave Keating, “MEPs reject ship recycling fund” *Europeanvoice.com* (19 April 2013), <http://www.europeanvoice.com/article/2013/april/meps-reject-ship-recycling-fund/77029.aspx> accessed 29 April 2013.

## 4.7 Legal Aspects

The PROFUNDO report presented some legal aspects of a potential fund regarding the draft report from November 2012. Both the European Union and the Member States are members of the WTO and used to be so also to the GATT that is now superseded by the WTO. One of the main principles of the GATT agreements is the non-discrimination principle. This principle is two folded; a country cannot discriminate between its trading partners and imported goods and locally produced good shall be treated equally. The report raises concerns of this principle in relation to the non-EU disbursement of funds in the draft report. If the funds are raised from all ships independent of nationality and flag state, and also were to be disbursed to all ships it would not be contrary to the principle. But the draft report mentioned proposed the money to be raised from all ships calling an EU-port but the money were only to be disbursed to EU-ships and this might not be in conformity with the non-discrimination principle.

The actual report that later was published by the ENVI in March 2013 opened up a way for also non-EU ships to be able to benefit from the disbursements of the fund. Through this proposal the possible conflict with the non-discriminations principle might have been avoided but as already mentioned this proposal was voted against in the European parliament in April 2013.

## 4.8 Conclusion

There are both positive and negative aspects of a potential ship recycling fund. On the positive side there is an immediate possibility to finance responsible recycling of end of life ships when the fund is introduced. The impact on scrapping practices is expected to be potentially large and costs are expected to be bearable by the industry.<sup>190</sup>

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<sup>190</sup> PROFUNDO p23.

What would be negative with the fund is that all ships existing in the world fleet today does not have the same amount of time left in service before recycling. This means that all the new ships would have to pay for the entire time in service when calling at an EU-port meanwhile the older ships would just have to pay for the time they have left before scrapping. Through this model the new ships would have to pay for the recycling of older ships and this transfer of money would go on for quite some time. Other negative aspect of the fund that is mentioned is the complex mechanism needed to control who is allowed pay out from the fund for recycling, if this is possible for all ships that have called an EU port. Last but not least there is the problem of bureaucracy at EU level and administration costs for the members states that would come with the port fee mechanism<sup>191</sup>.

Both pros and cons can be found with the proposal of establishing a recycling fund to cover the gap in costs between current practices of ship recycling and the practices of responsible ship recycling. What is clear is the need for better practices of ship recycling to come into force and preferably for the HKC to be ratified by enough states for it to come into force. Until that happens there will be a need for something to be done and the next chapter of this thesis will look into other options on how this could be done.

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<sup>191</sup> Ibid p23.

# 5 Financial Aspects

## 5.1 The Cash Buyer

What have been discussed so far in the paper is that the end of life vessel is sold to the recycling yard for scrapping but what has not been discussed is how the vessel is sold to the recycling yard. The vessel is normally sold in cash from the shipowner to an intermediate person called a cash buyer, and the cash buyer does later sell the vessel to the recycling yard under a letter of credit. The cash buyer is described as a dedicated broker but is truly regarded as principals/traders and is an integral part of the ship recycling chain<sup>192</sup>. Numbers from 2008 say that almost 95% of all sales of end of life ships are done through a cash buyer. The cash buyers takes delivery of the vessel from the shipowners in mainly two terms, as is where is and delivered;

- As is where is: means as it is where it is and basically means that the cash buyer becomes the legal owners of the vessel during its last voyage and responsible to deliver the vessel to the recycling facility.
- delivered: means the vessel is delivered to the cash buyer just outside of the outer anchorage of the recycling yard and can later be re-delivered by the cash buyer to the recycling yard. During this time the vessel is not re-flagged so the vessel is instead dismantled in a flagless status<sup>193</sup>.

An ILO report from 2009 compared the two options of selling a vessel for recycling, either through a cash buyer or directly to the recycling yard. The report concluded that at least in theory it would be economically beneficial to sell the vessel directly to the yard but that there is several reasons that this is only an option for the bigger shipowner firms. Direct sale requires a detailed knowledge of the recycling market and specific information about the recycling country, basically there is a lot of administrative burden to

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<sup>192</sup> T G Puthucherril, *From Shipbreaking to Sustainable Ship Recycling: Evolution of a Legal Regime* (Martinus Nijhoff Publisher 2010), p20.

<sup>193</sup> *Consideration of the Draft International Convention for the Safe and Environmentally Sound Recycling of Ships: The role of the Cash Buyer*, Submitted by the Republic of the Marshall Islands, SR/CONF/15, 27 February 2009, p1.

take care of a direct sale and only an option for larger shipping companies that have a sizeable amount of obsolete tonnage to be recycled, and sufficient in-house capacity to deal with the process.<sup>194</sup>

The cash buyer makes money by buying vessels from the shipowners, which he later sells for a little more money to the recycling yard. He would, based on that, be most interested to sell the vessel to the recycling yards that can give him the best price for it. The recycling yards that can give the best price for the vessel will most likely be the yard with the lowest costs of dismantling the vessel and thus not seem like the most environmental friendly solution.

## 5.2 Insurance

As mentioned earlier in chapter 5 about a ship recycling fund there are also proposals for the finance mechanism in connection with environmentally sound ship recycling to take the form of Insurance.

Over the years there have been several international convention concluded in the framework of IMO that deals with the liability of shipowners. A number of these conventions have also introduced obligatory insurance for the shipowners liability<sup>195</sup>. To have the finance mechanism in connection with environmentally sound ship recycling to be based on insurance would require that insurance to be obligatory through regulation for the shipowners and it is thus shown that this would not be the first time for obligatory insurance for the shipowners. The insurance offered on the market to cover the shipowners liability according to these international conventions is P&I insurance. Certain types of P&I insurance is also necessary when sailing different territorial waters or ports of the world and there is a *EU Directive*

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<sup>194</sup> *Guidelines on Transitional Measures for Shipowners: Selling Ships for Recycling : In Preparation for the entry into force of the IMO Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, ILO, October 2009.

<sup>195</sup> PROFUNDO, p24.

*on the Insurance of Shipowners for Maritime Claims*<sup>196</sup> that introduced the requirement of liability insurance for the EU as a whole<sup>197</sup>. According to article 2 of the directive it applies to ships of 300 GT or more. The directive require for ship sailing under an EU-flag and for ships calling at an EU-port to carry a certificate of insurance with them. The member states may also extend this demand according to article four of the directive to its territorial waters. With insurance the directive means;

insurance with or without deductibles, and comprises, for example, indemnity insurance of the type currently provided by members of the International Group of P & I Clubs, and other effective forms of insurance (including proved self-insurance) and financial security offering similar conditions of cover<sup>198</sup>.

When it comes to what the insurance has to cover article four say that it shall cover maritime claims subject to limitation under the 1976 Convention on Limitation of Liability for Maritime Claims adopted by the International Maritime Organisation (IMO), as amended by the 1996 Protocol, and the amount for the insurance to cover ship per incident shall be equal to the maximum amount as laid down by the 1996 Protocol<sup>199</sup>.

### **5.2.1 The ECORYS Report**

The ECORYS report presented the idea of having the recycling charges included in the insurance premiums of the ship. The idea was to introduce something that looks like an obligatory life insurance for the ship and through the annual insurance premiums, funds could be reserved for the environmentally sound recycling. The pre-cleaning and recycling should then be paid for by the owner who could later be reimbursed for these costs upon proof of green recycling of the vessel. The report mentions the two options of having this type of mechanism either centrally managed or decentralized managed. Centrally managed would require the insurance companies to forward the extra premiums to a fund but since this kind of

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<sup>196</sup> Directive 2009/20/EC of the European Parliament and of the Council of 23 April 2009: on the insurance of shipowners for maritime claims.

<sup>197</sup> PROFUNDO, p25.

<sup>198</sup> Directive 2009/20/EC of the European Parliament and of the Council of 23 April 2009: on the insurance of shipowners for maritime claims, article 3 (b).

<sup>199</sup> Ibid article 4.

mechanism would be so closely connected with the insurance market the report conclude that the logical solution might be to include the insurance companies in this process which might lead to a decentralized fund where the insurance companies directly pays out the money to the shipowners.<sup>200</sup>

This type of mechanism would require new regulations making this kind of insurance obligatory for the vessels. The report suggests to have this type of insurance in connection with the P&I Insurance of the vessel and not in connection with the Hull and Machinery Insurance since this is described as a highly international and rather diffuse market and do not have the same coverage as the P&I Insurance. The potential disadvantages with the mechanism presented in the ECORYS report are that it might be sensitive for fraud when it comes to the certificates, and since the proposal here is to have the money put into a fund there is also the disadvantage that the recycling of current ships has to be financed from the total of all premiums. This would require a good balance of old and new ships since the old ships might not be able to pay several annual life insurance premiums before recycling is necessary. This would especially be a problem if the fund is to be decentralized managed by the insurance companies. If there is no such balance this might lead to old ships being refused from insurance or only to be insured against very high premiums<sup>201</sup>. The problem with old ships is though something that comes back from the other proposal for a finance mechanism through a fund and not something that is specific for a potential financing mechanism based on insurance.

## **5.2.2 The PROFUNDO Report**

The PROFUNDO report describes the proposal for a ship recycling insurance as a life insurance rather than liability insurance. The need for ship to be dismantled is something that happens to all vessels eventually and is not like P&I Insurance that cover claims that may or may not happen to a ship under its lifetime. The idea for the ship recycling insurance is to cover

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<sup>200</sup> ECORYS, p31.

<sup>201</sup> ECORYS, p30f.

the additional costs of having the vessel recycled in a responsible way. Depending on what type of vessel it is, it costs different to recycle the vessel and this is something the insurance company must take notice to when obtaining premiums for the insurance. The proposal from the PROFUNDO report is to make this kind of recycling insurance obligatory in the same way as for other insurances that ships must carry certificates of when calling at ports within the EU. The European Union would have to identify insurance companies worldwide, whose recycling insurances they find suitable and whose certificate thus could be accepted to call the European ports. Through this solution all ships that want to call at European ports would have to get this type of insurance making the insurance well established in the world fleet.<sup>202</sup>

### 5.2.3 The EU Proposal

The ENVI Committee of the European Parliament presented a number of amendments in the draft report from 20 December 2012 by the rapporteur Carl Schlyter where they suggested a revision of directive 2009/20/EC in order to set up an recycling insurance<sup>203</sup>. Especially amendment 163 in this draft report got the International Group of P&I Clubs attentions. Amendment 163 state;

Member States shall ensure that existing EU ships keep onboard an inventory of hazardous materials as required by Article 5, along with a recycling plan, that shall be part of the insurance certificate already foreseen by Directive 2009/20/EC, as foreseen by Article 7<sup>204</sup>.

The International Group of P&I Clubs recognizes the certificate according to directive 2009/20/EC as evidence of ship carrying third party liability insurance, but that the insurance that is evidenced by these certificates does not cover the same liabilities as the proposed amendments. They refer to the

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<sup>202</sup> PROFUNDO, p26.

<sup>203</sup> Schlyter, C., *Draft Report on the proposal for a regulation of the European Parliament and of the Council on ship recycling (COM(2012)0118 – C7-0082/2012 – 012/0055(COD)) Amendments 124-258*”, European Parliament Committee on the Environment, Public Health and Food Safety, [PE502.035](#), 20 December 2012,

<sup>204</sup> Ibid p25.



PROFUNDO report that says that a recycling insurance does not exist in the insurance sector and therefore it is not possible for the IG member Associations to include an element of insurance concerning ship recycling in any form as envisaged by amendment 163<sup>205</sup>. The International group of P&I Clubs are also concerned with the cost of such financial security really is as low as suggested in the PROFUNDO report. They say that the assumptions made in the report are likely to be inaccurate since the requirements can only be met through the entry into force of new financial security providers in the insurance market. As a base for this argument they refer to the PROFUNDO where they say that it might be difficult to leave the introduction of the recycling insurance entirely up to the commercial insurance market since old ships might be refused to be insured or only at very high premiums. The IG's position is instead that appropriate mechanism to cover the costs related to the draft regulations is not the third party liability insurance and they recommend rejection of amendment 163 and all related amendments to Directive 2009/20/EC in the draft report.<sup>206</sup>

The EU proposal that recently passed through the European Parliament contains no financial mechanism since the support for such was voted down by close numbers. The last proposal for a financial mechanism was however in the form of a fund and not insurance.

### **5.3 Conclusion**

The cashbuyer can be seen as a middle man between the shipowner and the recycling yards. A not to bold conclusion would be that it is the cashbuyer that buys the ship when at seas in the form as is where is. Buying the ship when at seas is described in this thesis as situations when it is difficult for the application of the Basel Convention. Whether such a situation could be changed by the entry into force of the HKC has not been dealt with in this thesis and thus will no further conclusion be made regarding this. What

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<sup>205</sup> Proposal for a Regulation on Ship Recycling (2012/0055(COD)) Comments by the International Group of P&I Clubs (IG), 30 January 2013.p1

<sup>206</sup> Ibid p1f.

would have been and interesting discussion are if the role of the cashbuyer would change if a financial mechanism such as a fund or insurance would come into force. But without further information about this any conclusion would not be well founded.

When it comes to the matter of a financial mechanism through insurance this is as earlier mentioned no longer a part of the proposal for regulation on ship recycling in the EU. The advantages and disadvantages with such a mechanism have already been mentioned as well as the response from the IG of P&I.

# 6 Conclusions

## 6.1 Wrecks

Combining the definition of wreck given in the Merchant Shipping Act with the different types of actual total loss and constructive total loss it is difficult to draw any clear conclusions. The Marine Insurance act contains no definition of wreck so what constitutes a wreck in the Merchant Shipping Act must be put into context with what constitutes an actual or constructive total loss, to find out if the assured will be indemnified if the loss is caused by an insured peril. Jetsam, flotsam and lagan were all based on the ship either being sunk or perished meanwhile a derelict vessel meant a ship being abandoned and deserted by the master and crew with no intention of coming back. If a vessel for example is sunk that would make the vessel defined as a wreck according to the Merchant Shipping Act but at the same time this might not be enough to be regarded as a total loss according to the Marine Insurance Act. This was the situation in the case *Captain Ja Cates Tug & Wharfage Co Ltd v Franklin Insurance Co* but the ship was not seen as a constructive total loss since it was feasible to raise and repair the vessel. The conclusion of this should be that it depends on the circumstances of each case if the assured is entitled to be indemnified for a total loss when the ship has become a wreck caused by an insured peril. In the old case *Sailing Ship Blairmore Co Ltd v Macredie*<sup>207</sup> made a statement that could be seen as supporting the above view;

In the admitted circumstances of this case, I do not think it is a matter of necessary inference that *Blairmore*, when she went to the bottom of the sea on 9 April 1896, became immediately an actual total loss. She did not become, in the strict sense of the term, a total wreck, seeing that she was not reduced to the condition of a mere congeries of wooden planks or of pieces of iron which could not without reconstruction be restored to the form of a ship, and that she had sunk in a depth of water which admitted of her being raised to the surface and repaired.<sup>208</sup>

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<sup>207</sup> *Sailing Ship Blairmore Co Ltd v Macredie* [1898] AC 593 HL.

<sup>208</sup> *Ibid* p603.

This definition of a total wreck is from Abbot CJ in the case *Cambridge v Anderton* (1824) 2 B&C 691, but according to Susan Hodges this principle is no less appropriate now in order to differentiate between a total loss and a partial loss<sup>209</sup>.

Bennett writes that what constitutes as a total loss in the insurance law does not necessarily mean that there is nothing left of value. Value may remain in the form of salvage of the wreck for scrap and this is even more so in the scenario of a constructive total loss. Through these regulations the insurance law allows the assured to recover the measure of indemnity as a total loss, where from a commercial viewpoint the subject matter insured is a total loss although it still is in existence<sup>210</sup>.

## **6.2 The Business of Ship Recycling as of Today**

The level of ships going for recycling has during the last couple of years of low freight rates been rising. Ships that are no longer profitable for its owner are instead sent for scrapping. This makes the topic of ship recycling even more current. The industry of ship recycling employs hundreds of thousands of people worldwide and as shown in this thesis contributes with even more in the form of recycled steel in the economics in the recycling nations. The current convention applied to the business of ship recycling, the Basel Convention, was not designed to solely be applicable to recycling of ships, it was designed to deal with transboundary movements of hazardous waste, although there are different opinions if end of life ships are to be seen as hazardous waste. There was thus a need for a convention that only deals with the recycling of ships to fill the gaps of the Basel Convention and to set environmentally sustainable standards for the recycling process, hence the HKC was developed. But the HKC has not yet entered into force and will probably not do so in the nearest couple of years.

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<sup>209</sup> Susan Hodges, p602.

<sup>210</sup> Howard Bennett, p692

There is thus a need for the environmental sustainability of ship recycling that the requirements from the HKC are being applied in the recycling facilities. Of the five biggest recycling nations Mikelis reports that in China and Turkey most recycling facilities visited are operating with good standards and do not need expensive investments to comply with the technical standards of the HKC, the recycler and their association has even said that they could comply with the technical requirements if the convention entered into force today. He also says that India have made considerable progress in the last five years and for the facilities to comply with the convention does not need any additional major technical requirements<sup>211</sup>. Regarding Pakistan and Bangladesh this thesis has mentioned as the situation where a couple of years ago that a lot of investments is needed, but Mikelis writes that significant changes have been made in Bangladesh the last five years but that there is also a lot that still needs to be done. Conclusions from this information is that the earlier mentioned figures in this thesis about amounts needed for facilities in Bangladesh to comply with the requirements of the HKC might not be as high now as they were in the World Bank Report from 2010. But even if so it would still cost more money to use standards that comply with the requirements of the HKC and the requirements from the EU initiative on a regulation on ship recycling.

### **6.3 The European Initiative**

The European Union is concerned about the negative aspects linked to the recycling of European ships and that the effects they sought for by the waste shipment regulation where they included both the Basel Convention and the ban amendment has not been the one given by it. In Mikelis paper from the Shiprec 2013 he says that the EC calculated in 2009 that 91% of the European end of life ships had avoided or evaded the waste shipment

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<sup>211</sup> Nikos Mikelis, *Ship Recycling Markets and the Impact of the Hong Kong Convention* (International Conference on Ship Recycling World Maritime University Malmo 7-9 April 2013)

regulation<sup>212</sup>, pointing to the fact that the requirements from the waste shipment regulation is systematically circumvented. The EU is now working on legislation intended to replace the waste shipment regulation and the European Parliament recently voted to support the proposal put forward. The main things in this proposal are that European ships will be allowed to be recycled in facilities located outside of the OECD and that puts a ban on the beaching method. After the vote in the EP the rapporteur Carl Sclyster stated;

While the EP has voted to put an end to European ships being recklessly scrapped in developing countries in hazardous conditions, this is jeopardized by the failure to adopt a financial mechanism to support this. It is very frustrating that a narrow majority succumbed to the highly misleading lobbying by the maritime sector, seeking to shirk its responsibilities, and voted down the proposed financial mechanism that would have made ship recycling competitive<sup>213</sup>.

The financial instrument he talks about was in the last version a fund but in earlier draft reports there has also been proposals for a financial mechanisms in the form of recycling insurance. What effect this will have if it becomes EU legislation is left to be seen but if there is no financial incentive for the shipowners to send the vessels to environmentally sound recycling facilities the logic conclusion is that the rules will continuously be tried to be circumvented. The last proposed amendments for a fund was in the report A7-0132/2013 where the objectives of the fund was for both EU ships and non-EU ships to contribute to making their recycling economically viable. This would thus have minimized the risk of having a fund that would interfere with the non-discrimination principle from the GATT-agreements from earlier proposals since also non-EU ships would be allowed to receive disbursements from the fund if chosen to be recycled in a facility from the EU list.

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<sup>212</sup> Ibid

<sup>213</sup> *Ship scrapping/recycling: EP votes to curb hazardous scrapping of ships, but rejects key financial instrument*, The Greens in the European Parliament, <http://www.greens-efa.eu/ship-scrappingrecycling-9645.html> last accessed 23/05/2013.

The main disadvantage with the proposed financial mechanism would, as already mentioned in chapter 4 and 5, in connection with a fund be the transfer of money from new built and recently new built vessels, to older vessel. Older vessels would not be able to put in a substantial amount of money into the fund before they are sent for recycling which would have resulted in the newer vessel in a way forced to contribute to their recycling. With the financial mechanism structure as an insurance this could as mentioned result in older ships being refused insurance or only allowed to be insured against very high premiums.

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