



Handelshögskolan
VID GÖTEBORGS UNIVERSITET

**The Scrapping of Vessels –
An examination of the waste movement regime’s applicability
to vessels destined for scrapping and potential improvements
made in the IMO Draft Convention on Ship Recycling**

**Master’s Thesis for the Master of Law Programme
(Tillämpade Studier, 30 hp)**

Department of Law
School of Business, Economics and Law
University of Gothenburg

Spring 2008

Author:
Oskar Sundelin

Supervisor:
Prof. Svante O. Johansson

Abstract

The scrapping of ocean-going vessels is currently done mainly in a few states in Asia. Because of the hazardous materials contained in the ships, the scrapping poses a significant danger to both the workers in the shipbreaking yards as well as to the environment. The international community has been aware of the problems related with shipbreaking for over a decade, and has in different ways tried to improve the practices. Moreover, attention has turned to the regime governing the movement of waste, as it has been argued that a vessel destined for scrapping should be defined as waste under the regime. The waste movement regime contains provisions that control and restrict the transboundary movement of waste. Applying the regime could thus hinder vessels containing hazardous materials from being scrapped in Asia.

This thesis examines how the shipbreaking industry functions, what considerations are made before selling a ship for scrapping, and where and how the scrapping is done. Furthermore, the study provides an overview of actions taken so far by different stakeholders that are trying to solve the problems connected with shipbreaking. The main attention is, however, paid to the regulations governing the movement of waste and how the regulations can be applied to vessels destined for scrapping. It is argued that although the waste movement regime can be applied to vessels, the enforcement of the regulation contains some major weaknesses. These weaknesses result in the regime not being effective at solving the problems related with the scrapping of vessels.

Finally, the thesis examines the IMO Draft Convention on ship recycling. The Convention is currently being negotiated with the intention to adopt it in May 2009. The procedures laid down by the regulation are explained and some issues that remain unsolved are presented. This is accompanied by some critique of the Convention that has been put forward by environmental non-governmental organisations (NGOs). In the light of the critique from the NGOs and the earlier discussed weaknesses of the waste movement regime, the draft Convention is assessed. The conclusion is that although the draft Convention contains clear improvements of the present situation concerning the scrapping of vessels, the enforcement of the Convention still leaves room for some questions. Moreover, the draft Convention does not fully succeed to allocate the costs caused by shipbreaking in a manner that is in accordance with principles of international environmental law.

Table of Contents

<i>Abstract</i>	2
<i>Table of Contents</i>	3
<i>Abbreviations</i>	5
1. Introduction	6
1.1 The Life Cycle of a Ship	6
1.2 Current trends	6
1.3 Purpose	7
1.4 Delimitation	7
1.5 Structure and Method	8
2. The Shipbreaking Industry	8
2.1 Introduction	8
2.2 The World Fleet and the Need for Scrapping	9
2.3 The Scrapping Market	10
2.4 The Procedure of Shipbreaking	11
2.5 Hazardous Material and Its Consequences	12
3. International Awareness and Actions	13
3.1 The Wake-up Call	13
3.2 The Parties to the Basel Convention	14
3.3 The International Labour Organisation	14
3.4 The International Maritime Organisation	14
3.5 The European Union	15
3.6 The Shipping Industry and Environmental NGOs	15
3.7 The Shipbreaking States	16
4. The Waste Movement Regime	16
4.1 Background to the Waste Movement Regime	16
4.2 The Basel Convention	17
4.2.1 Objectives and Definitions	18
4.2.2 Restrictions and General Obligations	19
4.2.3 Prior Informed Consent	20
4.2.4 Illegal Traffic, Enforcement and Take-back Obligation	20
4.2.5 The Basel Ban and the Protocol on Liability	21

4.3 The OECD Decision	22
4.4 The EU Regulation on Shipments of Waste.....	23
4.4.1 Objectives and Definitions.....	24
4.4.2 Restrictions and Prohibitions on Shipments	25
4.4.3 The Notification Procedure.....	26
4.4.4 Illegal traffic, Enforcement and Take-back Obligation.....	27
5. The Waste Movement Regime and the Scrapping of Vessels.....	27
5.1 Introduction	27
5.2 The Contested Scope of the Basel Convention	28
5.3 The European Union’s Perspective.....	29
5.4 A Ship as Waste under the EU Regulation.....	30
5.5 Enforcement of the Waste Movement Regime.....	32
5.5.1 When Does a Ship Become Waste?	32
5.5.2 Jurisdiction Issues	34
6. The Draft Convention on Ship Recycling	37
6.1 Background.....	37
6.2 Objectives and Rules.....	37
6.3 Issues under Discussion	39
6.4 Critique of the Draft Convention	40
6.5 An Assessment of the Draft Convention.....	41
6.6 The Draft Convention and the Waste Movement Regime	43
7. Conclusions and Reflections.....	44
7.1 Conclusions	44
7.2 Reflections	45
<i>List of References</i>	<i>47</i>

Abbreviations

BAN	Basel Action Network
BIMCO	Baltic and International Maritime Council
Cf.	compare
Ch.	Chapter
COP	Conference of the Parties to the Basel Convention
DWT	Deadweight Tonnage
EC	European Community
ECJ	European Court of Justice
ed./eds.	edition or editor/editors
EEC	European Economic Community
EFTA	European Free Trade Association
e.g.	<i>exempli gratia</i> (for example)
<i>etc.</i>	<i>et cetera</i> (and so forth)
<i>et al</i>	<i>et alii</i> (and others)
EU	European Union
Ev.	Evidence
fn.	footnote
GT	Gross Ton
<i>Id.</i>	<i>ibidem</i> (in the same place)
<i>i.e</i>	<i>id est</i> (that is)
IMO	International Maritime Organisation
ILM	International Law Material
ILO	International Labour Organisation
LDT	Light Displacement Tonnes
MARPOL	International Convention for the Prevention of Pollution from Ships
MIT	Massachusetts Institute of Technology
MEPC	Marine Environment Protection Committee
NIMBY	not in my backyard
NGO	Non-governmental Organisation
No.	number
OECD	Organisation for Economic Co-operation and Development
OEWG	Open-ended Working Group
OJ	Official Journal of the European Union
p./pp.	page/pages
para./paras.	paragraph/paragraphs
PIC	Prior Informed Consent
PCB	Polychlorinated biphenyls
SYKE	Suomen Ympäristö Keskus, The Finnish Environment Institute
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environmental Programme
v.	versus
Vol.	Volume

1. Introduction

1.1 The Life Cycle of a Ship

Everything has an end. That also regards the life of ships sailing on the seven seas or in the local bay. At some point a vessel can no longer serve its original purpose and must thus be removed from service. A few ships may end up as museums or are sunk in order to create artificial reefs. However, the majority of all ships are scrapped. This means that the last journey of a ship usually ends with the vessel being dismantled, and some of the material thereby obtained being saved and reused.

During the last decades, the ship scrapping industry has increased significantly in Asia, while almost completely disappearing from the western world. Today, almost all ocean-going ships are scrapped in India, Bangladesh, Pakistan, Turkey or China. These states meet the shipowners' need for scrapping capacity. More importantly, the shipowners can actually profit from selling their vessels to scrap yards located in these states. The Asian scrap yards are willing and able to pay for defunct vessels since the material gained in the dismantling process can be sold or reused in national industries. At the same time, the ship scrapping industry offers employment for the local people.

Evidently, the scrapping of defunct vessels is necessary and can contribute to the developing industries of the scrapping states. However, current scrapping practices remain controversial from an environmental and labour safety perspective. The scrapping of vessels, as it is done today, can hardly be perceived as environmentally sound. The old ships, which are sent for scrapping, contain hazardous materials; materials dangerous to the environment and to humans. Therefore, the scrapping should be conducted in a safe and environmentally sound manner to avoid long term environmental damage and harm to workers in the scrap yards. However, at the moment this is far from the reality in the shipbreaking states. Ships are dismantled in a rudimentary manner, and neither proper safety equipment nor procedures protecting the environment are used. The result is disastrous for the environment and severely threatens the life and health of the workers.

1.2 Current trends

Since about a decade, the problems related with the scraping of vessels have been recognised on both national as international level. Several environmental non-governmental organisations (NGOs) have actively expressed their concern over the present situation and demanded improvements. The scrapping of vessels is also on the agendas of international governmental organisations that are trying to find a solution to the problems. In order to improve the current shipbreaking practices guidelines on environmentally sound ship scrapping have, among other things, been developed.

Moreover, attention has turned to the regulations governing the transboundary movement of waste that have been adopted on both international and regional level. It has been argued that a vessel destined for scrapping could be considered as waste under the existing regulations. Thus, the waste movement regime could be applied in order to restrict hazardous vessels from being sent to Asia for scrapping. The European Union (EU) has supported this approach, and some national courts of the Member States have applied the Community's rules on waste shipments to vessels destined for scrapping. However, not all stakeholders consider it suitable to apply the waste movement regime to end-of-life vessels. The relationship

between vessels destined for scrapping and the waste movement regulations continues to be a much debated topic.

As the need for scrapping of vessels is expected to increase, the international community has put more emphasis on solving the problems associated with shipbreaking and finding a solution acceptable to all stakeholders. The lead role has been taken by the International Maritime Organisation (IMO). The organisation is currently preparing a binding regulation on the scrapping of vessels. The IMO “Draft International Convention for the Safe and Environmentally Sound Recycling of Ships” is supposed to be adopted in May 2009. However, it is doubted whether this will cause a real change of the current practices. Moreover, the entry into force of the Convention is not expected in the near future. Meanwhile, ships continue departing for their final voyage to the scrap yards of Asia.

1.3 Purpose

The purpose of this thesis is to critically examine the regulatory situation regarding ships destined for scrapping. The study will explore how the present regulations are managing the problems related with obsolete vessels being sent from industrialised countries to Asia for scrapping. The main focus will be on what problems are connected with applying the waste movement regime on ships destined for scrapping. This is done with the aim to discover potential loopholes and weaknesses that prevent the present regime on waste movement from working effectively.

Attention will, furthermore, be paid to the draft Convention that the IMO is preparing at present. The central questions are how the Convention will change the present regulatory situation and whether it will manage to solve the problems related with the scrapping of vessels.

In a wider context, the aim of this paper is to broaden our understanding of the complex regulatory questions that are connected with the scrapping of a ship.

1.4 Delimitation

This paper will not be occupied with the technical rules regulating the operation of ships and how the scrapping of a vessel should be done in practice. Instead, the centre of attention will be on the regulations concerned with ships that are intended to be scrapped. Furthermore, the mandatory rules will be in focus and not recommendatory guidelines that cover the scrapping procedure.

Vessels exist in all shapes and sizes. This paper will concentrate on ocean-going ships. Thus, the scrapping of smaller crafts, such as fishing and leisure boats, will not be covered. Moreover, the focus of this paper will mainly be on the EU and the legislation adopted within the Community. Nevertheless, as regards the EU’s rules governing the movement of waste, attention has to be paid to the procedures and developments within the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention). The EU’s measures have been developed in close connection to the Basel Convention. Thus, disregarding the developments within the international arena would not give an appropriate picture of the rules that can govern the scrapping of vessels. Furthermore, ships often sail between different jurisdictions and shipping amounts to a truly global business.

Finally, although contractual issues concerning the scrapping of a vessel are interesting and important, this study has no room to make an in-depth examination of how scrapping is dealt with between parties to a scrapping contract.

1.5 Structure and Method

The thesis will begin with an outline of how the shipbreaking industry functions. The attention will be put on the current need for scrapping, the characteristics of the scrapping market, and how the scrapping of vessels is done in practice. In addition, the problems connected to the scrapping of vessels shall be illustrated.

In the following chapter, the emergence of international awareness of the problems connected to shipbreaking is sketched briefly. The discussion will then move to a short overview of actions taken, showing how the stakeholders have dealt with the scrapping of vessels up to now.

The third part of the thesis covers the international regime governing the movement of waste. It will be explained how the current waste movement regime has developed. Furthermore, the different rules and procedures in the regulations, which have been established in order to control the movement of waste, will be outlined.

This will be followed, in part four, by an analysis of the relationship between the scrapping of vessels and the waste movement regime. Particularly, it will be examined how the waste movement regime can be applied to ships destined for scrapping and it will be analysed what problems are encountered when enforcing the waste movement regulations to the ships in question.

In the fifth part, focus will turn to the planned IMO Draft Convention. The development of the regulation will be explained, and its basic structure and control procedures will be described. Subsequently, some critique of the draft Convention will be presented and it will be assessed whether the Convention constitutes an improvement of the current situation concerning the scrapping of vessels. Finally, the relationship between the existing waste movement regime and the planned draft Convention will be studied more in detail.

In the final chapter, based on what has been discovered in the earlier parts, some conclusions and reflections will be delivered.

The study will be based on a review of the existing regulations and related case law. Furthermore, focus will be put on arguments posted by the different actors involved in the shipbreaking issue. In order to outline these arguments, reports and publications delivered by international organisations and other stakeholders will constitute important references. Certainly, the academic discussion of the scrapping of vessels cannot be disregarded.

2. The Shipbreaking Industry

2.1 Introduction

When commodities cease to be fit for their purpose, it is natural to dispose of them. This concerns all kinds of objects, vessels being no exception. When a ship is removed from service, it is the reasonable interest of a shipowner to find a profitable way to dispose of the vessel not needed anymore. The scrapping of vessels provides work for people in the shipbreaking states. Furthermore, the material obtained in the scrapping process can be reused and contribute to the growth of developing industries. This chapter will outline the current need of scrapping and explain, when, where and how ocean-going vessels are scrapped. Also, the negative aspects of the shipbreaking industry will be presented.

2.2 The World Fleet and the Need for Scrapping

The world fleet comprises nearly 50,000 vessels over 500 gross tons (GT). The number changes continuously, as new ships are being built and old ships are being scrapped. In addition, a few ships still disappear in the depths of the oceans. During the last years, the world fleet has experienced a substantial growth in numbers because of exceptionally favourable freight rates.¹

Under normal circumstances, the life-length of a ship is around 25 to 30 years.² When a vessel grows older, the maintenance costs for keeping it seaworthy increase. As long as the owner finds it economically feasible the ship is kept in operation. But eventually the vessel will be sent for scrapping.³ Scrapping becomes attractive when the maintenance costs of the vessel start to exceed possible revenues and the vessel cannot be sold on the second-hand market.⁴ Consequently, the development of the freight market has a strong impact on the number of ships sent for scrapping. In times of high freight rates, ships are kept in operation. This naturally increases the average age of the world fleet. In 2006, the average age of the vessels sent for scrapping had risen to 32.6 years, which is evidence of the exceptionally high freight market during the last years.⁵ The shipowner's decision to scrap a vessel is also influenced by the current prices paid for ships on the scrapping market.⁶ Finally, the number of ships scrapped is affected by the ongoing phase-out of all single-hull tankers.⁷ It has been estimated that around 1,300 single-hull tankers will have been sent for scrapping by the year 2015.⁸

In the light of the abovementioned factors, it is understandable that the number of ships scrapped may vary significantly from year to year. According to recent statistics, 874 ships over 499 GT were scrapped in 2003. Three years later the number had decreased to 386.⁹ It has been estimated that 288 ships were sent for scrapping in 2007.¹⁰

Of the ships scrapped between 2001 and 2003, about 14% were sailing under the flag of an EU member state and 18% under flags of states that acceded to the EU in 2004.¹¹ As regards vessels flying a Nordic flag, it has been argued that they are usually sold on the second hand

¹ Mikelis, N., *A Statistical Overview of Ship Recycling*, International Symposium on Maritime Safety, Security & Environmental Protection, Athens, September 2007, p. 1. The author presents relevant statistics concerning the scrapping of vessels obtained from Lloyd's Register – Fairplay and its annual publication World Fleet Statistics. Available at: <www.imo.org> Last visited: 2 May 2008.

² Paul, K., *Exporting Responsibility - Shipbreaking in South Asia - International Trade in Hazardous Waste*, Environmental Policy and Law, Vol. 34/2, 2004, p. 74.

³ Mikelis, *A Statistical Overview of Ship Recycling*, p. 3.

⁴ Cf. COM(2007) 269, *Green Paper on Better Ship Dismantling*, 22 May 2007, p. 5.

⁵ Mikelis, *A Statistical Overview of Ship Recycling*, p. 3.

⁶ Gorton, L., Hillenius, P., Ihre, R., Sandevärn, A., *Shipbroking and Chartering Practice*, LLP, 2004, p. 13.

⁷ The United States, the European Union and the International Maritime Organisation have all taken action to phase out single-hull tankers. For an overview of the legislation see: *Oil Tanker Phase Out and the Ship Scrapping Industry – study on the implications of the accelerated phase out scheme of single hull tankers*, COWI/TREN, June, 2004, pp. 22-26. (Hereinafter “COWI/TREN 2004”)

Available at: <<http://ec.europa.eu/environment/waste/ships/index.htm>> Last visited: 2 May 2008.

⁸ COM(2007) 269, p. 7.

⁹ Mikelis, *A Statistical Overview of Ship Recycling*, p. 3, Table 3. It must be kept in mind that these numbers are only estimations. Mikelis points out that, “the available data and databases suffer from what appear to be unavoidable discrepancies.”, p. 2.

¹⁰ *Global Statement 2007 of Shipping Vessels Sent to Demolition*, issued by Robin des Bois, 2008, p. 1. Available at: <www.robendesbois.org/english/sea/global-shipbreaking-2007.html> Last visited: 2 May 2008.

¹¹ This was estimated as the percentage of the total amount of the Dead Weight Tonnage (DWT) of the scrapped vessels. See COWI/TREN 2004, p. 53.

market before they end up in a condition where scrapping becomes an option.¹² A study, which was made for the Swedish Environmental Protection Agency (*Naturvårdsverket*), supports to some extent this argument. According to the study, out of 149 ships which at some point during their lifetime had been under Swedish ownership, 17 had been scrapped abroad directly by their Swedish owners.¹³

2.3 The Scrapping Market

In the past, the same countries that built ships also carried out the scrapping when the vessels were removed from service.¹⁴ However, a shift took place during the 1970s when the main part of the shipbreaking industry first moved to the shipyards of South Korea and Taiwan and later to India, Bangladesh, Pakistan and China.¹⁵ Today, shipbreaking facilities in the western world have been reduced to a marginal level. In Europe, there are some smaller facilities that are able to scrap fishing vessels and other small crafts, but only Belgium, Italy and the Netherlands have a limited capacity to dismantle larger ships.¹⁶ Currently, Turkey is the only member of the Organisation for Economic Co-operation and Development (OECD) that has a capacity to scrap larger amounts of tonnage.¹⁷

The shift of the ship scrapping industry from industrialised western countries to Asia has been driven by four main factors. Firstly, the enactment of stricter environmental regulations in the industrialised world raised the costs of scrapping vessels in these countries. In comparison, the environmental legislation in the current shipbreaking states is not sufficient or non-enforced. Secondly, the scrapping yards in Asia have access to cheap labour which also keeps their costs down. Thirdly, there is a strong demand for scrap metal in the shipbreaking states and a second-hand market for components obtained from the ships exists. Thus, the shipbreakers can make a profit by selling material and equipment acquired from the scrapping process. Finally, the shores of the Asian countries are ideal for scrapping vessels because the high tides make it possible to drive the ships straight up on the beaches, thereby avoiding the need of docks. These four factors result in the Asian scrap yards being able to pay for defunct ships.¹⁸ Unsurprisingly, this is an offer that shipowners find hard to resist.

Today, over 90% of the shipbreaking industry is found in Bangladesh, India, Turkey, Pakistan and China.¹⁹ The market shares of these states fluctuate considerably. For a long time, the bulk of ship scrapping was performed in India, the beach of Alang being the world's leading shipbreaking site with over one hundred scrapping plots. Recently, however, the position as market leader has been held by Bangladesh. Some claim that the low

¹² See answer from the Finnish Environmental Minister Enestam to a written question posted in the Finnish Parliament, KK 785/2004. Available at: <www.eduskunta.fi/faktatmp/utatmp/akxtmp/kk_785_2004_p.shtml> Last visited: 2 May 2008.

¹³ See *Skrotning av svenskägda fartyg - Historik och prognos för framtida skrotningsbehov* – Revised December 2006, Lloyd's Register – Fairplay.

¹⁴ Dodds, D., *Breaking up is Hard to Do: Environmental Effects of Shipwrecking and Possible Solutions Under India's Environmental Regime*, Pacific McGeorge Global Business & Development Law Journal, Vol. 20, 2007, p. 215.

¹⁵ Langewiesche, W., *The Shipbreakers*, The Atlantic Monthly, Vol. 286/2, 2000, p. 33.

¹⁶ COM(2007) 269, p. 6.

¹⁷ *Id.*, pp. 6-7. As will be shown in Ch. 4, there are special rules concerning export of waste between OECD members.

¹⁸ Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships adopted by the Sixth Meeting of the Conference of Parties to the Basel Convention on 13 December 2002, pp. 29-30. (Hereinafter "Technical Guidelines") Available at: <www.basel.int/ships/techguid.html> Last visited: 2 May 2008.

¹⁹ Mikelis, *A Statistical Overview of Ship Recycling*, p. 8, Figure 7.

environmental standards make it possible for the shipbreakers in Bangladesh to offer the highest price for ships.²⁰ In addition, Bangladesh has a high demand for ship steel, which also increases the price the scrap yards can offer for a ship.²¹

It is possible to discover some tendencies towards specialisation between the ship breaking states. For instance, large ships are mostly scrapped in Bangladesh and Pakistan.²² Turkey, on the other hand, primarily attracts smaller European trading ships. This is because the prices offered by the scrappers do not cover the costs of the Suez Canal transit and the costs for the longer voyage to the South Asian shipbreaking states.²³

2.4 The Procedure of Shipbreaking

When a shipowner has decided to scrap a vessel, the owner still needs to choose between different options. One option is to sell the ship directly to the scrap yard operator. In that case, the owner will usually be required to sail the ship to the scrapping facility. A second option is to sell the ship to a cash buyer, who will subsequently resell it to the shipbreaker.²⁴ Fairly often, brokers are used to act on behalf of the parties and manage the sale.²⁵ Some standard scrapping contracts exist but seem rarely to be used.²⁶

The buyer of the end-of-life vessel pays a price per Light Displacement Tonnes (LDT).²⁷ This measurement is roughly equivalent to the steel weight of a ship. The part of a ship that is steel varies, but for some type of vessels the steel content is approximately 90%.²⁸ LDTs are used since the measurement provides a good estimation of the quantities of materials that can be obtained when the ship is dismantled.²⁹

The price per LDT paid by the Asian shipbreakers fluctuates, depending on factors like market demand and supply, ship type, quality and quantity of the steel, equipment onboard the ship, and domestic taxation on scrapping tonnage.³⁰ It remains questionable whether the hazardous materials onboard the ship affect the price.³¹ The prices paid for a ship were for a long time around 150 US\$ per LDT. However, during 2007, increased demand for steel combined with a low supply of ships raised the prices up to around 500 US\$ per LDT.³² For a ship of 10,000 LDT, the owner can therefore currently expect around 5 million US\$.

When sold for scrapping, the ship is typically to be delivered on site in an “as is” condition.³³ In most cases the ship will also take cargo on its final voyage to the area where it

²⁰ Sawyer, J., *Shipbreaking and the North-South Debate: Economic Development or Environmental and Labor Catastrophe?*, Penn State International Law Review, Vol. 20, 2002, p. 548.

²¹ Mikelis, *A Statistical Overview of Ship Recycling*, p. 5.

²² Technical Guidelines, pp. 41-42.

²³ Mikelis, *A Statistical Overview of Ship Recycling*, p. 5.

²⁴ Technical Guidelines, p. 30.

²⁵ See Industry Code of Practice on Ship Recycling, developed by ICS and other industry organisations, August 2001, Section 2.5 to 2.7. Available at: <www.marisec.org/recycling> Last visited: 2 May 2008.

²⁶ See Gorton, L., *Problem i samband med försäljning av fartyg till upphuggning*, MARIUS, No. 208, 1994, p. 289.

²⁷ *Shipbreaking in OECD*, Working Report No. 18, 2003, Danish Environmental Protection Agency, p. 14.

Available at:

<www2.mst.dk/common/Udgivramme/Frame.asp?http://www2.mst.dk/Udgiv/publications/2003/87-7972-588-0/html/default_eng.htm> Last visited: 14 May 2008.

²⁸ Technical Guidelines, p. 24.

²⁹ Mikelis, *A Statistical Overview of Ship Recycling*, p. 2.

³⁰ Technical Guidelines, p. 31.

³¹ COM(2007) 269, p. 5.

³² *Id.*, p. 5.

³³ Technical Guidelines, p. 29.

is to be scrapped. After delivering the cargo, the ship will be brought under its own power to the scrap yard.³⁴

The quality of the scrap yards vary between the five major shipbreaking states. In China, for instance, dock-like facilities have been used. However, in the absence of such facilities the ships are simply driven up on the beach, a procedure called beaching.³⁵ Beaching is essentially used in India, Bangladesh and Pakistan. Owing to the great tidal changes, it is possible to get the ships far up on the shore during high tide. After the tide recedes, the ships are easily accessible by the workers.³⁶

On the beach, workers take the ship apart piece by piece. Simple tools, such as gas torches and iron cutters, are used to break the steel of the ship into manageable pieces.³⁷ In addition to steel, other materials like wood and glass wool are obtained, alongside with equipment such as refrigerators, TVs and engines.³⁸ The material and equipment from a dismantled ship can either be re-sold, re-manufactured or recycled. Undamaged steel and oil is, for instance, re-manufactured, while recovered equipment is sold on the domestic second hand market.³⁹ Scrap steel is recycled, which means that it is used as raw material in the steel industry. Shipbreaking is an important source for raw materials.⁴⁰ Bangladesh, for instance, lacks domestic iron and therefore relies on ship metal to feed the country's steel factories.⁴¹

2.5 Hazardous Material and Its Consequences

The heart of the shipbreaking issue is the problems related with the management of the hazardous materials contained in end-of-life vessels. When building ships 20 to 30 years ago, materials, many of which are banned today, were commonly used. Furthermore, some ships may during their time in service carry hazardous materials in bulk that subsequently is not cleaned properly. Finally, most ships contain oil sludge, bilge and ballast water, which also represent a danger to the environment.

In the light of this, most of the old defunct ships, which are sent for scrapping, contain a cocktail of hazardous materials. Among other things, the following hazardous materials may be found in a ship:

Asbestos - found in the thermal system, insulation and surfacing material. It is not harmful to the environment but when breathing material containing asbestos it composes a serious threat to the human health as it may cause a chronic inflammatory condition called asbestosis.

Polychlorinated biphenyls (PCBs) - found in for instance paint, cable insulation and transformers. PCBs present a significant environmental and health risk.

Lead - found for example in batteries, paints and cables. It is harmful to the health. Exposure can affect the nervous system and impair muscle coordination.

³⁴ COM(2007) 269, p. 5.

³⁵ Technical Guidelines, p. 37.

³⁶ Sawyer, p. 546.

³⁷ *Id.*, p. 546.

³⁸ See the list in: *Note on Shipbreaking*, issued by India's Supreme Court Monitoring Committee on Hazardous Wastes. Available at: <www.scmc.info/special_issues/note_on_shipbreaking.htm> Last visited: 15 February 2008.

³⁹ Technical Guidelines, p. 34.

⁴⁰ COM(2007) 269, p. 2.

⁴¹ Sawyer, p. 547.

Additionally, an end-of-life vessel may contain oil, mercury, antifreeze, solvents, TBT and other substances that are also considered hazardous.⁴² Naturally, the amounts of material vary depending on the size, type and age of the ship.⁴³

In order to achieve a safe removal of the hazardous materials contained onboard, they should be removed by trained workers wearing protective clothing. However, currently the scrapping is often conducted by poorly educated workers that lack the necessary protective equipment.⁴⁴ As a result, the health of the workers is negatively affected. A recent study has shown that one out of six workers at Alang suffered from asbestosis.⁴⁵ Moreover, fatal accidents occur on a regularly basis. This happens, for instance, when leftover gas fumes in ship tanks explode.⁴⁶

In addition to the health impacts, the basic scrapping procedures have a derogatory effect on the environment. Discharges and emissions from the shipbreaking yards cause both acute and long term pollution. Studies committed in India and Bangladesh has shown the presence of alarmingly high amounts of hazardous substances in the ground surrounding scrap yards.⁴⁷ The situation is at some locations also worsened by the disposal of materials on unauthorised sites.⁴⁸

3. International Awareness and Actions

3.1 The Wake-up Call

Public awareness of the problems that shipbreaking caused in Asia, arose for the first time in 1997, after a series of articles were published in the United States.⁴⁹ The articles described the problems US authorities had encountered when trying to scrap obsolete naval vessels, but it also highlighted the harsh working conditions in Alang.⁵⁰ Shortly after the release of the articles, a popular movement led by the environmental organisation Greenpeace started in Europe. The organisation's main targets were commercial shipping lines that scrapped their ships in Asia. As awareness of the derogatory shipbreaking practices arose, the pressure on the international community to react increased.

However, finding a solution to the problems related with shipbreaking is not an uncomplicated task. The issues connected with the scrapping of vessels are complex, global and involve many different areas of law. Shipbreaking concerns not only environmental protection, but also labour rights. Furthermore, it involves vessels subject to maritime regulations, but also scrapping facilities based on land are affected. Because of this multi-faceted nature of shipbreaking, various organisations and states have taken steps, trying to

⁴² See the table in Technical Guidelines, p. 27-28.

⁴³ In order to give an indication of the amount of hazardous materials that can be contained in a ship, it can be noted that the tanker *Otapan* was said to hold 1000 kilograms of asbestos-containing material onboard. See 5.3.

⁴⁴ *Id.*, p. 11.

⁴⁵ COM(2007) 269, p. 2.

⁴⁶ Sawyer, p. 548.

⁴⁷ See Technical Guidelines, referring to studies conducted in Bangladesh, p. 41.

⁴⁸ Unauthorised disposal sites have been discovered during inspections, see *Visit to Alang/Sosiya Shipbreaking Yards*, report from India's Supreme Court Monitoring Committee on Hazardous Wastes, March, 2005. Available at: <www.semc.info/special_issues> Last visited: 15 February 2008.

⁴⁹ Englund, W., Cohen, G., *The Shipbreakers*, Baltimore Sun, December, 1997.

⁵⁰ The authors were awarded the Pulitzer Prize for investigative reporting in 1998. See <www.pulitzer.org> Last visited: 2 May 2008.

cope with the problems associated with the scrapping of vessels.⁵¹ In order to give a picture of the present developments regarding shipbreaking, this chapter will provide a brief overview of the measures that actors concerned with the subject have taken so far on both international as national level.

3.2 The Parties to the Basel Convention

The Basel Convention is the global regulation governing the transboundary movement of hazardous waste.⁵² Since it has been argued that a ship destined for scrapping constitutes waste, the parties to the Convention have worked extensively on the issue of shipbreaking. The relationship between the Basel Convention and ships destined for scrapping is discussed regularly in the meetings of the parties and remains a particularly sensitive question. The parties to the Basel Convention have also enacted guidelines concerning shipbreaking. The guidelines focus mainly on how scrapping yards could dismantle ships in an environmentally sound manner.⁵³

3.3 The International Labour Organisation

The International Labour Organisation (ILO) is a specialised agency of the United Nations (UN) that focuses on labour rights, decent working conditions and workers' safety. At the moment, 181 states are members to the organisation.⁵⁴

As regards shipbreaking, the ILO has paid attention to the working conditions in the scrap yards, trying to enhance the safety and health of the workers. In 2004, the organisation issued guidelines for shipbreaking in Asian countries and Turkey.⁵⁵ The guidelines are primarily concerned with the working conditions in the scrapping yards.

3.4 The International Maritime Organisation

The IMO is also a specialised agency of the UN. The organisation has been the main source for international regulations dealing with topics like maritime safety and the protection of the maritime environment.⁵⁶ Currently, the organisation has 167 member states.

Above all, the IMO has dealt with the issue of shipbreaking within its technical body, the Marine Environment Protection Committee (MEPC), which consists of all member states. The issue was first brought to the attention of the MEPC in 1998.⁵⁷ From that moment on, shipbreaking has been a topic regularly discussed at the committee's meetings. In 2002, the

⁵¹ An interesting observation is that the actors use a wide range of terms in order to describe the practice of scrapping vessels. IMO and the shipping industry prefers to talk about *ship recycling*, EU and the Basel Convention uses *ship dismantling* and the environmental organisations the term *shipbreaking*. In this paper the term *scrapping* is mostly used, since it is a rather neutral term for the process of taking a ship apart that does not consider the procedures used. Cf. COWI/TREN 2004, p. 21.

⁵² Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989.

⁵³ Technical Guidelines, fn. 18.

⁵⁴ <www.ilo.org> Last visited: 4 May 2008.

⁵⁵ Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey, approved by the 289th session of the International Labour Organisation's Governing Body in March 2004. Available at: <www.ilo.org/public/english/protection/safework/sectors/shipbrk/index.htm> Last visited: 2 May 2008.

⁵⁶ <www.imo.org> Last visited: 2 May 2008.

⁵⁷ Mikelis, N., *Developments and Issues on Recycling of Ships*, The East Asian Seas Congress, 2006, p. 2. Available at: <www.imo.org> Last visited: 2 May 2008.

MEPC decided to develop own guidelines on shipbreaking, taking into account the guidelines developed by other actors. These recommendatory guidelines were adopted by the IMO in the end of 2003.⁵⁸

Acknowledging the need for coordination between the international stakeholders, the IMO, the ILO and the parties to the Basel Convention have together established a joint working group on shipbreaking. The aim of this group is to identify further needs and to avoid duplication of work and overlapping of roles, responsibilities and competencies of the organisations.⁵⁹

Since 2005, the IMO has been developing a binding international convention on the safe recycling of ships.⁶⁰ This is currently the leading work regarding the scrapping of vessels that is taking place.

3.5 The European Union

The EU has taken a special interest in the scrapping of vessels. In 2006, at least 36% of the worlds shipping tonnage was owned by companies domiciled in the EU.⁶¹ Besides influencing the work of the IMO and the bodies of the Basel Convention, the EU has dealt with shipbreaking within its own institutions and through its own regulation on shipments of waste. Furthermore, the EU has conducted a couple of studies about the scrapping of vessels and related issues.⁶² The Community's latest contribution to the debate on shipbreaking is the "Green Paper on Better Ship Dismantling", which was published by the European Commission in the middle of 2007.⁶³

Some Member States of the Union have also adopted national measures concerning shipbreaking. The most prominent action has been taken by the United Kingdom, which has established a national ship recycling strategy.⁶⁴

3.6 The Shipping Industry and Environmental NGOs

Naturally, the shipping industry has wanted to have its say on the development of new guidelines and regulations. Thus, the different actors in the industry have joined together in order to protect their mutual interests. Apart from influencing the work conducted by the governmental organisations, the shipping industry has, in 2001, produced an "Industry Code of Practice on Ship Recycling".⁶⁵ In addition, the industry has published a set of interim measures intended for shipowners who are about to sell their ships for scrapping.⁶⁶

⁵⁸ IMO Guidelines on Ship Recycling, Assembly Resolution A.962(23) adopted on 5 December 2003.

Available at: <www.imo.org/includes/blastDataOnly.asp/data_id%3D11404/ResShiprecycling962.pdf>

Last visited: 2 May 2008.

⁵⁹ So far the group has held two sessions. The reports can be found at: <www.basel.int/ships/jimbwg.html> Last visited: 2 May 2008.

⁶⁰ See Ch. 6.

⁶¹ COM(2007) 269, p. 2.

⁶² See COWI/TREN 2004 and *Ship Dismantling and Pre-cleaning of Ships*, COWI/ENV, June, 2007.

(Hereinafter "COWI/ENV 2007") Available at: <<http://ec.europa.eu/environment/waste/ships/index.htm>>

Last visited: 2 May 2008.

⁶³ COM(2007) 269, see fn. 4.

⁶⁴ UK Ship Recycling Strategy, February, 2007.

Available at: <www.defra.gov.uk/environment/waste/strategy/ship.htm> Last visited: 2 May 2008.

⁶⁵ Industry Code of Practice on Ship Recycling, see fn. 25.

⁶⁶ Available at: <www.marisec.org/recycling> Last visited: 2 May 2008.

Among the environmental NGOs, the Basel Action Network (BAN), Greenpeace and Robin des Bois have been particularly active in considering the problems connected to shipbreaking.⁶⁷ The organisations' most important aim has been to raise awareness of the environmental harms that the scrapping of vessels causes in the shipbreaking states. In order to do so, the organisations have thus far organised different public awareness campaigns. The work has also focused on observing which ships have been or are about to be sent for scrapping. The French organisation Robin des Bois regularly publishes a bulletin on shipbreaking, and Greenpeace has issued a list of 50 ships that it considers to be in danger of scrapping. Furthermore, the environmental NGOs participate in and try to influence the work carried out in the international governmental organisations. This is done by sending submissions to the meetings and posting comments and press-releases.

3.7 The Shipbreaking States

Unsurprisingly, the major shipbreaking states are interested in the developments on the international arena. The states also take part in the work of the governmental organisations. A main interest of the shipbreaking countries is to protect the domestic industry. However, the environmental concern of these countries should not be disregarded. Most notably, the Supreme Court of India has delivered decisions aimed at improving the current conditions in the nation's shipbreaking industry. As was mentioned earlier, the beach of Alang has been in the centre of the debate on harmful shipbreaking practices.⁶⁸ Turkish Courts have also dealt with ships intended to be scrapped in the country.⁶⁹ As regards China, there have been some reports indicating that the country is working on setting up "green" scrapping yards.⁷⁰

4. The Waste Movement Regime

4.1 Background to the Waste Movement Regime

Since the end of the Second World War, the industrial productivity has grown rapidly in the developed world.⁷¹ As the industry produces more goods, more waste is also generated. Thus, the need to dispose the waste has grown. On top of that, some of the wastes are considered hazardous and thus require special treatment.

As the amount of waste and the need for its disposal has increased, so has the awareness of the dangers posted by the waste in general and hazardous waste in particular. In the middle of the last century, the occurrence of local scandals started to highlight the dangers linked to the disposal of hazardous waste.⁷² The resistance towards waste facilities grew and "NIMBY -

⁶⁷ For more information about the work of the organisations see: <www.ban.org>, <www.greenpeace.org> and <www.robindesbois.org> Last visited: 2 May 2008.

⁶⁸ Lately, there have been reports indicating that the circumstances in Alang have improved, but also that shipbreaking activities have decreased. See for instance, Luther, M., *Stålpriserna ruinerar Alang*, Svensk Sjöfarts Tidning, June, 2005, pp. 64-66.

⁶⁹ A Turkish Court ordered the ship *Sea Beirut*, which was intended to be scrapped in Turkey, to return to France from where it had departed. See COWI/TREN 2004, pp. 38-39.

⁷⁰ Technical Guidelines, pp. 37-38.

⁷¹ Pellow, D., *Resisting Global Toxics: Transnational Movement for Environmental Justice*, MIT Press, 2007, p. 8.

⁷² A well-known scandal is, for example, the discovery in the United States of toxic waste dumped in a neighbourhood called Love Canal.

not in my backyard” became a catchphrase. As a reaction, national regulations regarding the disposal of waste were improved in the developed world. On the downside, the treatment of waste became more cumbersome and expensive.⁷³

In search for cheaper ways to dispose waste, the international trade in waste emerged in the 1970s and 1980s.⁷⁴ To a large extent, the trade was conducted between industrialised countries, which by trading waste could benefit from better capacities and economies of scale. However, even bigger cost reductions could be made by shipping waste to developing countries that were in need of capital and lacked proper environmental legislation. Thus, following the path of least resistance, shipments of waste from the developed to the developing world increased.⁷⁵

Since the beginning of the 1980s, the OECD and the EU made attempts to improve the international coordination on waste management. This was partly a reaction to the *Seveso* incident, when drums from Italy containing highly toxic material were found abandoned in France.⁷⁶ First and foremost, the work of the OECD and the EU established rules for the internal movement of waste. However, the focus of the work was expanded when an international outcry against shipments of waste to developing countries broke out in the late 1980s. The protests were the result of well-exposed cases involving waste from the western world being exported to developing countries that lacked the capacity to treat the waste in a sound manner.⁷⁷ This outcry provoked the international community to react and to regulate the transboundary movement of waste.

Today, the transboundary movement of waste is governed by a complex regulatory system, consisting of regulations on international, regional as well as national level. This chapter will provide an overview of the international waste movement regime in order to study the relationship between the regime and ships destined for scrapping in the next chapter. The focus of the overview will be on the international regulation established under the auspices of the UN as well as the regional rules established by the OECD and the EU.

4.2 The Basel Convention

The international community’s answer to the outcry against shipments of wastes was the Basel Convention, which was negotiated under the auspices of the United Nations Environmental Programme (UNEP). The work started in October 1987, with the aim to develop a global convention on the control of transboundary movement of hazardous waste, drawing on existing guidelines and relevant work of national, regional and international bodies.⁷⁸ Because of the disparate views of the parties, the negotiations proved to be very difficult and contentious. The majority of the developing countries proposed a complete ban on the movement of hazardous wastes, whereas the industrialised countries were in favour of a less strict prohibition.⁷⁹ In the end, the parties succeeded in reaching a compromise and the

⁷³ Pellow, p. 8.

⁷⁴ O’Neill, K., *Globalization and Hazardous Waste Management: From Brown to Green?*, in *Dynamics of Regulatory Change: How Globalization Affects National Regulatory Policies*, UCIAS Edited, Vol. 1, 2002, p. 3.

⁷⁵ Morrison, F., Muffett, C., *Hazardous Waste*, in Morrison, F., Wolfrum, R. (eds.), *International, Regional and National Environmental Law*, Kluwer Law International, 2000, p. 410.

⁷⁶ Krueger, J., *International Trade and the Basel Convention*, Earthscan Publications, 1999, p. 22.

⁷⁷ See Kummer, K., *International Management of Hazardous Wastes*, Oxford University Press, 1999, pp. 6-8. The cases included, for instance, the disposal of hazardous waste in a small town in Nigeria and the journey of the vessel *Khian Sea* that dumped some of its toxic cargo, originated from Philadelphia, on a beach in Haiti.

⁷⁸ *Id.*, p. 40.

⁷⁹ *Id.*, p. 45.

Basel Convention was established in March 1989.⁸⁰ It entered into force three years later, on the 5th of May 1992.

Currently, 170 states are parties to the Convention, including all major waste-generating countries with exception for the United States.⁸¹ All five major shipbreaking states have also ratified the Convention. The high number of ratifications can be seen as evidence of the Convention's success. Nonetheless, some critics have argued that the Convention does not reduce the transboundary shipments of waste, but it actually legitimises a trade and leaves developing countries vulnerable to unsafe disposal practices.⁸² That said, the majority of writers addressing the Convention seem to have agreed that although the regulation was far from a perfect solution it was a step in the right direction.⁸³

4.2.1 Objectives and Definitions

The Basel Convention has three main goals: to reduce the transboundary movement of waste to a minimum; that hazardous waste should be treated and disposed of as close as possible to their source of generation; and that hazardous waste generation should be reduced and minimized at source.⁸⁴

The definition of waste is naturally an essential part of all waste regulations. However, what constitutes waste is hard to identify and is, in practice, highly depending on the context.⁸⁵ What is in one context seen as waste can in another context be a useful commodity. Article 2(1) of the Basel Convention, defines wastes as “substances or objectives which are disposed of or intended to be disposed of or are required to be disposed of by the provisions of national law.” The meaning of “disposal” is defined by reference to Annex IV, which specifies the disposal operations that are covered by the Convention.⁸⁶ Operations listed as disposal are, for instance, “deposit into or onto land” and “release into seas/oceans”.⁸⁷

What constitutes hazardous waste depends also on the context.⁸⁸ The Basel Convention defines the hazardous wastes covered by the Convention in an extremely technical and complex manner, referring to lists found in the different Annexes. To begin with, a waste is considered hazardous if it belongs to a category listed in Annex I, unless it does not possess any of the characteristics listed in Annex III. An exception to the aforesaid are wastes listed in Annex VIII, which are considered hazardous even though they would lack any of the characteristics listed in Annex III. The wastes listed in Annex IX, are not considered hazardous as long as they do not contain Annex I material to an extent that causes them to exhibit an Annex III characteristic. Finally, a waste not covered by Annexes I and III is, nevertheless, defined as hazardous, if it is considered to be hazardous by the domestic legislation of the party of export, import or transit.⁸⁹

⁸⁰ Krueger, p. 26.

⁸¹ The United States has continued to participate in the Convention negotiations and in its working groups. Morrison, *et al.*, p. 411.

⁸² See Birnie, P., Boyle, A., *International Law and the Environment*, Oxford University Press, 2002, p. 436.

⁸³ Kummer, p. 79.

⁸⁴ Rummel-Bulska, I., *The Basel Convention and the UN Convention on the Law of the Sea*, in Ringbom, H., (ed.), *Competing Norms in the Law of Marine Environmental Protection*, International Environmental Law & Policy Series, Kluwer Law International, 1997, p. 84. Krueger, p. 27.

⁸⁵ O'Neill, K., *Waste Trading among Rich Nations – Building a New Theory of Environmental Regulation*, MIT Press, Cambridge, 2000, p. 26.

⁸⁶ Basel Convention, Article 2(4).

⁸⁷ *Id.*, Annex IV, entries D1 and D7.

⁸⁸ O'Neill, *Waste Trading among Rich Nations*, p. 26.

⁸⁹ Basel Convention, Article 1(1).

The Annexes in the Basel Convention are closely modelled on corresponding annexes in the EU's and the OECD's waste legislations.⁹⁰ The Annexes offer some degree of flexibility since they are easy to amend, but they have also been criticised for being too wide, allowing a disproportionate range of substances to be included. Furthermore, it is worth noticing that there are no minimum limits for the concentration of a certain substance. Consequently, a waste containing an insignificant value of a component listed in Annex I may still be considered a hazardous waste.⁹¹

The Basel Convention is not applicable to radioactive waste. Neither are wastes "which derive from the normal operations of a ship, the discharge of which is covered by another international instrument" covered by the Convention.⁹² This provision has been understood to mean wastes that are generated in the course of activities directly related to the purpose of a ship. For instance, substances that are regulated by the "International Convention for the Prevention of Pollution from Ships" (MARPOL) fall thus outside the Basel Convention.⁹³

Finally, it must be observed that the Basel Convention applies only to transboundary movement of waste. According to the Convention, "transboundary movement" means any movement of hazardous waste from an area under the national jurisdiction of one state to or through an area under the national jurisdiction of another state.⁹⁴

4.2.2 Restrictions and General Obligations

In order to achieve its objectives, the Basel Convention contains a number of restrictions on the movement of hazardous waste, in addition to some general obligations that the parties to the Convention must fulfil. To begin with, the Convention prohibits parties from permitting exportation of hazardous wastes to states that are not parties to the Convention. The export of hazardous waste to parties that have banned such import is also prohibited.⁹⁵ One could argue that these prohibitions can already be derived from general principles of international law, such as the principle of sovereignty.⁹⁶

In addition to the explicit export prohibitions, each party to the Convention is obligated to take appropriate measures to reduce the generation of hazardous waste to a minimum and to ensure that adequate facilities for the environmentally sound management of hazardous waste are available.⁹⁷ The Convention also contains a provision demanding that each party must take appropriate measures to ensure that the transboundary movement of hazardous waste is reduced to the minimum, consistent with the environmentally sound and efficient management of such waste.⁹⁸ Finally, according to Article 4(2)e, a party must take appropriate measures not to allow export of hazardous waste, if the party has reasons to believe that the waste will not be managed in an environmentally sound manner.

The general obligations provide guidance for the parties how to handle hazardous waste management. However, the provisions do not contain absolute and clear obligations. For instance, the meaning of "environmentally sound manner" is ambiguous. Furthermore, the

⁹⁰ Kummer, p. 48.

⁹¹ *Id.*, p. 50.

⁹² Basel Convention, Article 1(4).

⁹³ Kummer, p. 52. MARPOL covers the intentional pollution of the sea from ships, other than dumping.

⁹⁴ The definition was a compromise and uncertainty exists concerning the exact meaning of the provision. For a discussion about this uncertainty, see Kummer, pp. 52-55.

⁹⁵ Basel Convention, Article 4(6) and Article 4(1)c.

⁹⁶ This is because a state has a sovereign right to control activities within its territory. See Kummer, p. 20 and p. 61.

⁹⁷ Basel Convention, Article 4(2)a and Article 4(2)b.

⁹⁸ *Id.*, Article 4(2)d.

parties are only required to “take appropriate measures”, which leaves the nature and extent of such measures open.⁹⁹

4.2.3 Prior Informed Consent

As long as the abovementioned general obligations are followed and no import ban has been adopted, the movement of hazardous waste is, in principle, not prohibited between parties to the Basel Convention. In order to, nevertheless, control the transboundary movement of waste, the Convention contains a regulatory system built around the procedure of prior informed consent (PIC).¹⁰⁰

The PIC procedure applies to all transboundary movements of hazardous wastes between parties to the Convention. At the outset, the parties must designate a competent authority to administrate the procedure. The state of export must then in accordance with the PIC procedure notify, or require the generator or exporter to notify, the competent authorities of the states concerned of any intended transboundary movement of hazardous waste.¹⁰¹ The notification must contain certain specified information and be made in writing, through the channel of the competent authority of the state of export.¹⁰² Thus, the PIC procedure keeps the competent authority of the exporting state, as well as the authorities of any other states concerned, informed of any transboundary movement of hazardous waste.

When the state of import has received a notification, it must respond to the notifier in writing. In the response, the importing state can consent to the movement with or without conditions, request more information or deny the movement. The state of import must also confirm the existence of a contract between the exporter and the disposer in which the environmentally sound management of the wastes is stipulated and specified. According to Article 6(3) of the Convention, the state of export is prohibited from allowing the commencement of the waste movement before the notifier has received the consent of the importing state and the existence of a contract has been confirmed.¹⁰³

The rights and duties of transit states depend on whether they are parties to the Basel Convention or not. Transit states that are parties to the Convention have the same obligation as the importing state to respond to the notifier. Thus, the movement of hazardous waste cannot commence before consent of a transit state that is a party to the Convention has been obtained.¹⁰⁴ Transit states that are not parties to the Convention must also be notified. Otherwise, however, the Convention is silent on the rights of such transit states.¹⁰⁵

4.2.4 Illegal Traffic, Enforcement and Take-back Obligation

According to the Basel Convention, any transboundary movement of hazardous waste without notification to all the states concerned, or without the necessary consent from the states concerned, is deemed to be illegal traffic. The same applies to any transboundary movement

⁹⁹ Kummer, p. 60.

¹⁰⁰ *Id.*, p. 65.

¹⁰¹ A “state concerned” is defined as a state of export, import or transit, whether or not a party to the Convention, see Basel Convention, Article 2(13).

¹⁰² *Id.*, Article 6(1). The required information is found in Annex VA.

¹⁰³ *Id.*, Article 6(3).

¹⁰⁴ *Id.*, Article 6(4). A party transit state has, however, a possibility to waive the requirement of prior written consent.

¹⁰⁵ Basel Convention, Article 7. See Kummer pp. 68-70 for a discussion about the interpretation of this Article.

of hazardous wastes that result in the deliberate disposal of the wastes in contravention of the Convention and general principles of international law.¹⁰⁶

In order to prevent and punish illegal traffic, the parties to the Convention have an obligation to adopt and enforce national legislation.¹⁰⁷ Has illegal traffic, nonetheless, occurred because of conduct on the part of the exporter or generator, the state of export must ensure that the wastes are taken back, or if this is impracticable, otherwise dispose the wastes in accordance with the Convention. A similar obligation is laid down on the importing state, if the illegal traffic was the result of conduct on the part of the importer or disposer. Can the responsibility for the illegal traffic not be assigned to any party to the movement, the states concerned must together ensure that the wastes are disposed of in an environmentally sound manner.¹⁰⁸ Thus, the responsibility for illegal traffic is placed on the states, although it is usually private actors that are involved in the transactions of hazardous waste. The reason for this is that the states are required to control the movement of transboundary wastes in accordance with the PIC procedure. Thus, if illegal traffic occurs, the states have failed to fulfil their obligations and are consequently held responsible.¹⁰⁹

Finally, the Basel Convention also contains an obligation for the exporting state to take back exported hazardous waste, if for some reason the movement cannot be completed in accordance with the contract between the exporter and the disposer.¹¹⁰ No illegal action is necessary for this duty to apply, but it has been argued that the obligation does not cover every cause of impossibility to comply with the contract.¹¹¹

4.2.5 The Basel Ban and the Protocol on Liability

As described above, many of the provisions in the Basel Convention were compromises. Some of the controversial issues were left open for later negotiations. One of those issues concerned the ban of hazardous waste transports from developed to developing countries. According to the Convention, the governing body, i.e. the Conference of the Parties (COP), should regularly evaluate the need for a partial or complete ban on the movement of hazardous wastes.¹¹² A complete ban was especially demanded by developing countries. After the Convention had been adopted, the question of a ban was therefore raised at the following COP-meetings. Initially, some progress concerning the issue was made at the second meeting of the parties, in 1994, when the parties took a decision that banned the export of hazardous wastes for disposal from OECD countries to non-OECD countries.¹¹³ The decision, furthermore, declared that the export of hazardous waste for recycling would be banned by 1998. The binding force of this decision was, however, questioned since it had not been incorporated into the text of the Convention.¹¹⁴ At COP-3, which was held the following year, the decision was therefore formally incorporated into the Convention.¹¹⁵ The only adjustment

¹⁰⁶ Basel Convention, Article 9. In addition, if the consent has been obtained through falsification etc. the movement is also considered illegal traffic.

¹⁰⁷ See Basel Convention, Article 9(5) and Article 4(4). Cf. Kummer, pp. 70-72.

¹⁰⁸ See Basel Convention, Articles 9(2), 9(3) and 9(4).

¹⁰⁹ Kummer, p. 220.

¹¹⁰ Basel Convention, Article 8.

¹¹¹ Cf. Kummer, p. 222. She considers that for instance *force majeure* would trigger the take-back duty.

¹¹² Basel Convention, Article 15(7).

¹¹³ Conference Decision II/12. Available at: www.basel.int/meetings/cop/cop1-4/cop2repe.pdf
Last visited: 2 May 2008.

¹¹⁴ Krueger, p. 32.

¹¹⁵ Conference Decision III/1. Available at: www.basel.int/meetings/cop/cop1-4/cop3decisions_e.pdf
Last visited: 2 May 2008.

made was that the decision referred to Annex VII and non-Annex VII countries, instead of the previous wording of OECD and non-OECD countries.¹¹⁶

The decision taken at COP-3, called the Basel Ban or the Ban Amendment, remains very controversial among the parties to the Convention. The fundamental issue is that the decision not only bans exports of hazardous wastes for disposal, but also exports of hazardous waste intended for recycling.¹¹⁷ Consequently, all trade in hazardous waste between OECD and non-OECD countries would be prohibited. The complete prohibition does not satisfy all parties to the Convention. On the other hand, parties in favour of the ban argue that it is necessary in order to improve the Convention and to fight illegal dumping more efficiently.¹¹⁸ As will be shown below, the EU has incorporated the Ban Amendment into its legislation on waste movement.

Currently, the Ban Amendment has been ratified by 63 out of the 62 countries needed for the amendment to enter into force. Despite this, the entry into force continues to be disputed as it has been argued that the required number of ratifications can only be made by states that were present at COP-3.¹¹⁹

Another issue that was left for later negotiations concerned the liability and compensation for damage resulting from the transboundary movement of waste. Some developing countries were worried about their lack of funds and technologies for dealing with illegal dumping or accidental spills. This issue was subsequently dealt with through The Protocol on Liability and Compensation, established in 1999.¹²⁰ According to the protocol, generators, exporters, importers and disposers are all potentially liable at different stages of the movement of the waste. The liability is strict, subject to a limited range of defences.¹²¹ However, at present the protocol has only been ratified by 8 out of the 20 states required for it to enter into force.

4.3 The OECD Decision

The OECD is currently made up by 30 states that co-operate “for a better world economy”.¹²² The organisation has also worked extensively with waste management, which is not surprising considering that industrialised countries are the main producers of waste. The waste management work of the OECD has been conducted in close connection with the EU and keeping an eye on the development within the Basel Convention.¹²³

As concerns the transboundary movement of waste, the OECD’s main legislative act is a decision adopted by the Council in 1992.¹²⁴ This decision was driven by a fear of unnecessarily suffocating the recycling industry by too prohibitive rules.¹²⁵ The aim of the decision was therefore to facilitate the trade in waste destined for recycling between OECD

¹¹⁶ The states listed in Annex VII are “Parties and other States which are members of OECD, EC, Liechtenstein.”

¹¹⁷ Krueger, p. 32.

¹¹⁸ *Id.*, pp. 56-57.

¹¹⁹ The issue concerns the interpretation of Article 17(5). See Conference Decision VIII/30. Available at: <www.basel.int/meetings/cop/cop8/docs/16eREISSUED.pdf> Last visited: 2 May 2008. More information is also available at the BAN home page at: <www.ban.org/Deposit_Box.html> Last visited: 2 May 2008.

¹²⁰ Basel Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement of Hazardous Wastes and Their Disposal, December 10, 1999.

¹²¹ Birnie, *et al.*, p. 435.

¹²² <www.oecd.org> Last visited: 4 May 2008.

¹²³ For a summary of the waste management system of the OECD see Kummer, pp. 159-164.

¹²⁴ OECD Decision C(92)39/Final on the Control of the Transboundary Movements of Wastes Destined for Recovery Operations, April 6, 1992.

¹²⁵ See Louka, E., *International Environmental Law – Fairness, Effectiveness, and World Order*, Cambridge University Press, 2007, p. 433.

members. The decision, which is binding for the organisation's member states, is notably not limited to hazardous waste, but it covers all types of waste.

The decision was revised in 2001, to better correspond with the Basel Convention.¹²⁶ Nowadays, the decision establishes a "two-tier system", which categorises wastes according to their nature and hazardousness on either a green list or an amber list. The wastes on the green list are only subject to controls normally applied in commercial transactions.¹²⁷ As regards wastes on the amber list, their movement requires some additional conditions to be fulfilled and that a notification procedure, similar to the PIC procedure in the Basel Convention, is undertaken.¹²⁸ As shown below, the OECD Decision has also been incorporated into the EU's legislation on movement of waste.

4.4 The EU Regulation on Shipments of Waste

The EU has actively worked with the coordination of waste management in the Member States, with the aim of limiting the generation of waste and optimising the organisation of waste treatment. The EU's policy on waste management emerged in the 1970s and developed in strong connection with the work conducted in the OECD.¹²⁹ The specific issue of transboundary movement of hazardous waste was addressed for the first time by the EU in the beginning of the 1980s, when a directive governing the shipment of hazardous waste within the Community was adopted. The directive was later extended in order to also cover shipments of waste to third countries.¹³⁰

When the Basel Convention entered into force in 1992, there was an increased need in the EU to bring its own legislation on transboundary movement of hazardous waste in line with the Convention.¹³¹ Thus, the EU replaced its earlier directives, which covered the subject, with the Regulation 259/93 on the supervision and control of shipments of waste within, into and out of the EC.¹³² Because the previous directives had been poorly implemented by the Member States, the EU decided this time to enact a directly applicable regulation.¹³³

Not only did the new regulation include the rules of the Basel Convention, but it also incorporated the system concerning wastes destined for recovery that had been established by the OECD Decision.¹³⁴ Thus, the EU regulation became a more complex and far-reaching regulation than the Basel Convention as it established dual standards, making a distinction between waste destined for disposal and waste destined for recovery. Furthermore, in accordance with the OECD Decision, the scope of the regulation was not limited to hazardous waste, but all types of wastes were covered.

Similarly to the OECD Decision, one of the aims of the new EU regulation was to facilitate the export of waste destined for recycling to developing states. This approach was based on the idea of trade in recyclable material being economically beneficial and of recycling as environmentally sound waste management.¹³⁵ However, a change to this approach occurred in

¹²⁶ OECD Decision C(2001)107/Final concerning the Revision of Decision C(92)39/Final on the Control of the Transboundary Movements of Wastes Destined for Recovery Operations, May 21, 2002.

¹²⁷ Decision C(2001)107/Final, p. 10, Chapter II(C).

¹²⁸ Decision C(2001)107/Final, p. 10, Chapter II(D).

¹²⁹ Krueger, p. 25.

¹³⁰ Kummer, p. 131.

¹³¹ Krueger, p. 25. The EU has also signed the Basel Convention. It is considered a "mixed agreement", thus allowing both the EU as well as its individual member states to access the Convention. See Kummer, p. 138.

¹³² Council Regulation (EEC) No 259/93/ of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [1993] OJ L 30/1.

¹³³ Krueger, p. 25. Kummer, p. 131.

¹³⁴ Krueger, p. 25.

¹³⁵ Kummer, p. 137.

1996, after a tough political battle, when the Regulation 259/93 was amended in order to incorporate the Basel Amendment.¹³⁶ Because of the amendment, the export of hazardous waste for recovery and recycling from the EU to non-OECD countries became prohibited.

In the light of having three different regulations that govern the transboundary movement of hazardous waste in the EU, there has been a recurring need to update and harmonise the EU rules. Diverse definitions and lists of wastes in the international and the regional regulations have rendered their application rather difficult. Not surprisingly, the EU's waste legislation has frequently been criticised for being too complex.¹³⁷ Thus, in an attempt to streamline the existing control procedures, incorporates recent changes of international law and strengthen the provisions on enforcement and co-operation between Member States in case of illegal shipments, Regulation 259/93 was replaced by Regulation 1013/2006 on shipments of waste.¹³⁸ The Regulation entered into force on 12 July 2007 and is currently the central legislation governing the movement of waste within, to and from the EU.

4.4.1 Objectives and Definitions

The EU regulation on shipments of waste is strongly influenced by the Basel Convention. However, to some extent the provisions of the regulation go beyond the requirements laid down in the Convention.¹³⁹ The most notable differences between the two regulations are that the EU regulation applies to all types of wastes and that it has incorporated the Basel Amendment, thus prohibiting the export of hazardous waste to developing countries.

The Regulation 1013/2006 applies to shipments of waste within the Community, to or from third countries, or in transit through the Community.¹⁴⁰ The preamble clearly designate that the predominant objective of the regulation is the protection of the environment.¹⁴¹

“Waste” is in the EU regulation defined by reference to the definition provided in the framework Directive 2006/12 on waste.¹⁴² According to the framework Directive, waste is “any substance or object in the categories set out in Annex I which the holder discards or intends or is required to discard”.¹⁴³ The referred Annex I contains a general category which covers any materials, substances or products. Consequently, “discard” becomes the decisive factor that defines what constitutes waste.¹⁴⁴

“Hazardous waste” is defined by reference to the Directive 91/689 on hazardous waste.¹⁴⁵ The Directive on hazardous waste yet again, makes further reference to a list drawn up by the European Commission.¹⁴⁶ Ultimately, however, the most important definitions on what

¹³⁶ Kellow, A., Zito, A., *Steering through Complexity: EU Environmental Regulation in the International Context*, Political Studies, Vol. 50, 2002, p. 52.

¹³⁷ See for instance O’Keeffe, J., Hall, D., *Transfrontier Shipments of Waste: A Bureaucrat’s Dream?*, European Environmental Law Review, January, 2000, pp. 10-16. Tromans, S., *EC Waste Law – A Complete Mess?*, Journal of Environmental Law, Vol. 13/2, 2001, pp. 133-156.

¹³⁸ Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste [2006] OJ L 190/1.

¹³⁹ Cf. Kummer, pp. 136-137.

¹⁴⁰ Regulation 1013/2006, Article 1(2).

¹⁴¹ Regulation 1013/2006, Preamble, para. 1.

¹⁴² Regulation 1013/2006, Article 2(1).

¹⁴³ Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste [2006] OJ L 114/9, Article 1(a).

¹⁴⁴ See Langlet, D., *Prior Informed Consent and Hazardous Trade – Regulating trade in hazardous goods at the intersection of sovereignty, free trade and environmental protection*, Stockholm University, 2007, p. 100.

¹⁴⁵ Council Directive 91/689/EEC of 12 December 1991 on hazardous waste [1991] OJ L 377/20.

¹⁴⁶ Directive 91/689, Article 1(4). The mentioned list on hazardous waste has been established by the Commission Decision 2000/532/EC of 3 May 2000 [2000] OJ L 226.

constitutes hazardous waste are found in the Annexes to the Regulation on shipments of waste. Similarly to the Basel Convention, the Annexes contain lists of different types of wastes. The rules applicable to the wastes in the different Annexes are presented below.

4.4.2 Restrictions and Prohibitions on Shipments

The Regulation 1013/2006 establishes procedures and control regimes for the shipping of waste depending on the origin, destination and route of the shipment, the type of waste shipped, and the type of treatment to be applied to the waste at its destination.¹⁴⁷ In order to provide a brief overview of the rules, the following description will make a distinction between shipments within the Community and shipments to third countries.

Firstly, the rules concerning shipments within the Community shall be considered. All shipments of waste destined for *disposal* within the Community are subject to a procedure of prior written notification and consent.¹⁴⁸ However, as regards waste destined for *recovery*, the applicability of the notification procedure depends on the type of waste and which category it belongs to. For instance, shipments for recovery of waste categorised in Annex III, so called green listed waste, are only subject to a few general information requirements.¹⁴⁹

Secondly, shipments to third countries will be considered. Shipments of waste for *disposal* to third countries are prohibited. However, under certain conditions an exception is made for waste destined for disposal in an EFTA country, as long as the country in question is also a party to the Basel Convention.¹⁵⁰ The export must still adhere to the notification procedure *mutatis mutandis*, with the adaptations and additions listed in the Regulation.¹⁵¹ As regards shipments of waste for *recovery* to third countries, the legality of the shipment and which procedures must be followed depends on two factors. Firstly, whether the receiving country is a member of the OECD, and secondly, which category the waste belongs to, i.e. the type of the waste. The export of waste for recovery to OECD members is allowed, providing that the procedure of prior written notification and consent is followed *mutatis mutandis* and with some adoptions and additions made that depend on the type of waste.¹⁵² In contrast, the shipment of waste for recovery to non-OECD members is prohibited as regards certain listed wastes. These wastes are among others:

- wastes listed as hazardous in Annex V,
- wastes the import of which has been prohibited by the country of destination, and
- wastes the competent authority of dispatch has reason to believe will not be managed in an environmentally sound manner in the destination country.¹⁵³

To non-OECD members, only wastes listed in Annex III, i.e. the green listed wastes, may be allowed to be exported for recovery. The European Commission has sent a request to all non-OECD members, giving them the option to either prohibit or allow the import of waste listed

¹⁴⁷ Regulation 1013/2006, Article 1(1). Cf. Crowhurst, G., Davidson, S., *The New Regulation on Waste Shipments: Green List Controls*, European Environmental Law Review, August/September, 2007, p. 223.

¹⁴⁸ The procedure is explained below in 4.4.3.

¹⁴⁹ Regulation 1013/2006, Article 3.

¹⁵⁰ "EFTA" means the European Free Trade Association. Currently, Norway, Iceland, Liechtenstein and Switzerland are members of the Association. They are all also parties to the Basel Convention.

¹⁵¹ Regulation 1013/2006, Article 35.

¹⁵² *Id.*, Article 38.

¹⁵³ *Id.*, Article 36.

in Annex III. Based on the answers, the Regulation 1418/2007 was enacted.¹⁵⁴ The regulation in question lists which countries prohibit and which countries allow the import of Annex III wastes, and whether particular control procedures are applied to the import.

4.4.3 The Notification Procedure

The procedure of written notification and consent is harmonised with the PIC procedure in the Basel Convention. Substantially, the procedure is the same but some formal differences exist. To begin with, a difference is that the Regulation 1013/2006 explicitly identifies five parties involved in the shipment of waste. These are the *holder*, who is either the producer of the waste or the one who is in possession of it; the *collector*, who is the one carrying out waste collection; the *dealer*, who is anyone that acts in the role of principal to purchase and subsequently sell waste; the *broker*, who is anyone arranging recovery or disposal of waste on behalf of others; the *consignee*, who is a person or undertaking in the destination country to whom or to which the waste is shipped for recovery or disposal.¹⁵⁵

Similarly to the Basel Convention, the Regulation declares that a notifier must submit a prior written notification to and through the competent authority of dispatch when he or she intends to ship waste.¹⁵⁶ The notifier is selected in accordance with a ranking of the parties involved in the shipment. The original producer is on the first rank, followed by the licensed new producer who carries out operations prior to shipment. The third position is occupied by the licensed collector. Fourth in line is the registered dealer who has been authorised in writing as notifier. Fifthly, the registered broker will be assigned to act as notifier. Finally, if the aforementioned persons are unknown or insolvent, the duty to notify is placed on the holder.¹⁵⁷

When submitting the notification, the notifier must fill in a notification document and a movement document. These documents must contain, among other things, information and documentation about the waste and the parties involved in the shipment. In addition, the notifier is required to conclude a contract with the consignee, which must contain certain obligations listed in the regulation. Finally, all shipments of waste for which notification is required, are also subject to a requirement demanding that a financial guarantee or insurance that will cover a number of costs is established.¹⁵⁸

Once the notification has been carried out, the competent authority of dispatch sends the notification to the competent authority of destination and possible transit authorities. In line with the Basel Convention, the competent authority of dispatch can, however, raise objections and decide not to proceed with the notification under certain conditions. Furthermore, the competent authorities of destination and transit must deliver a decision regarding the shipment. Similarly to the Basel Convention, the authorities can consent with or without conditions or they can choose to object on one or more grounds stated in the regulation.¹⁵⁹

To sum up, a shipment of waste from the Community that is not explicitly prohibited may only take place after the following requirements have been fulfilled. Firstly, the notifier has to receive written consent from the competent authorities of dispatch and destination, and when

¹⁵⁴ Regulation (EC) No 1418/2007 of 29 November 2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to Regulation (EC) No 1013/2006 of the European Parliament and of the Council to certain countries to which the OECD Decision on the control of transboundary movements of wastes does not apply [2007] OJ L 316/6.

¹⁵⁵ Regulation 1013/2006, Article 2.

¹⁵⁶ *Id.*, Article 4.

¹⁵⁷ *Id.*, Article 2(15).

¹⁵⁸ *Id.*, Article 4.

¹⁵⁹ See Regulation 1013/2006, Article 7 and Article 9.

appropriate from the transit authorities, and meet the possible conditions laid down by them. Furthermore, a contract between the notifier and the consignee must have been concluded. In addition, financial guarantees must have been established and be effective. Finally, the parties involved in the shipment must have taken necessary steps to ensure the environmentally sound management of the waste during the shipment and during the recovery or disposal.¹⁶⁰

4.4.4 Illegal traffic, Enforcement and Take-back Obligation

Article 2(35) of the Regulation declares that a shipment without notification to and consent of all competent authorities concerned is considered to be an illegal shipment.¹⁶¹ The Member States are required to lay down rules on penalties for infringement of the provisions and also to take all necessary measures to ensure that the provisions are implemented. The penalties must be effective, proportionate and dissuasive. Furthermore, the Member States must provide for spot checks on shipments. These checks must include the inspection of documents and, where appropriate, physical checks of the waste.¹⁶²

Moreover, the regulation obligates the competent authority of dispatch to require and endeavour to secure that any waste exported from the Community is managed in an environmentally sound manner. The competent authority of dispatch must prohibit the export of waste to third countries, if it has reason to believe that the waste will not be managed in an environmentally sound manner.¹⁶³

Finally, similarly to the Basel Convention, the EU Regulation on shipments of waste contains an obligation to take back the waste if the shipment cannot be completed as intended. First and foremost, the competent authority of dispatch shall ensure that the waste is taken back by the notifier.¹⁶⁴ In case of an illegal shipment, the costs for the take-back will primarily be put on the notifier.¹⁶⁵

5. The Waste Movement Regime and the Scrapping of Vessels

5.1 Introduction

Whether ships sent for scrapping should fall under the scope of the waste movement regime is a much debated question. Some stakeholders consider vessels intended to be scrapped as waste and consequently find it reasonable to apply the regulations on waste movement. Other stakeholders, in opposition to this, consider the scrapping of vessels such a particular practice that a defunct ship should fall outside the scope of the regulations.

The following chapter will firstly describe the ongoing debate and achievements made concerning the position of vessels destined for scrapping within the Basel Convention. After that, the focus will turn to the EU regulation on shipments of waste, and it will be examined how ships destined for scrapping fit within the scope of the regulation. Finally, the second

¹⁶⁰ Cf. Regulation 1013/2006, Article 35(4), Article 37(1) and Article 38(4).

¹⁶¹ The provision contains further requirements in paragraphs c) to g) that define other situations that can constitute an illegal shipment. This includes, for instance, the falsification of documents.

¹⁶² Regulation 1013/2006, Article 50.

¹⁶³ *Id.*, Article 49(2)a and b.

¹⁶⁴ *Id.*, Article 22.

¹⁶⁵ *Id.*, Article 25.

half of this chapter will focus on the problems connected with the enforcement of the waste movement regime to ships destined for scrapping.

As has been shown above, the EU regulation on shipments of waste and the Basel Convention are closely connected. Although the focus will mainly be on the EU regulation, the considerations are therefore also of interest as regards the Basel Convention.

5.2 The Contested Scope of the Basel Convention

The applicability of the Basel Convention to ships destined for scrapping is highly contested. Opposing views have, for instance, been taken by environmental organisations and the shipping industry.¹⁶⁶ The arguments presented by these stakeholders give a good overview of the debate as to whether the waste movement regime should be applied to ships intended to be scrapped.

The shipping industry has, among other things, argued that the international waste regulation was not established in order to apply to ships. The issue of ships heading to scrapping yards was not considered by the parties to the Basel Convention when the regulation was established. Furthermore, the shipping industry has consistently maintained the view that the Basel Convention does not apply to ships on their way, under their own power, to a recycling yard and that any “hazardous waste” that results from the dismantling operation is created at the scrapping facility. In short, the basis for this argument has been that a ship cannot fall under the definition of “hazardous waste” in the Basel Convention since the ship *as a unit* does not possess any of the characteristics required for it to be defined as hazardous waste.¹⁶⁷ It has been argued that as long as a ship is not dismantled, the hazardous materials contained in the ship are not harmful.

In contrast, environmental organisations have argued that not only the individual substances contained in a ship but also the ship itself can be considered as hazardous waste under the Basel Convention. Furthermore, the environmental organisations have stressed that restricting defunct ships from being scrapped is in accordance with the objectives of the Convention. According to the organisations, the Convention is the only binding international regulation which is well placed to restrict the flow of poisonous ships to the beaches of Asia and hereby able to protect the workers as well as the environment.¹⁶⁸

The debate over the applicability of the Basel Convention to ships destined for scrapping has likewise continued within the bodies of the Convention. So far, however, the issue appears not to have been solved.¹⁶⁹ The Open-ended Working Group (OWG) of the Convention, submitted a questionnaire to the parties, asking for their opinions on what rules apply to a vessel sent for scrapping.¹⁷⁰ When studying the answers it becomes clear that no agreement exists. Some parties were of the opinion that a ship sent for scrapping is still a ship and cannot be considered as waste, thus excluding the applicability of the Basel

¹⁶⁶ *Dismantling Defunct Ships in the UK*, Environmental, Food and Rural Affairs Committee, Eighteenth Report of Session 2003-2004, pp. 9-10. Available at:

<www.publications.parliament.uk/pa/cm200304/cmselect/cmenvfru/834/834.pdf> Last visited: 2 May 2008.

Wall, D., Tsimplis, M., *Selling Ships for Scrap*, Lloyd's Maritime and Commercial Law Quarterly, 2004, p. 258.

¹⁶⁷ Arguments of the shipping industry can, for instance, be found in the document: UNEP/CHW.7/INF/10. *The Application of the Basel Convention to Ships Destined for Recycling*, Position Paper, pp. 29-35. Available at: <www.basel.int/meetings/cop/cop7/docs/i10e.pdf> Last visited: 2 May 2008.

¹⁶⁸ *Id.*, pp. 2-27.

¹⁶⁹ Buenker, M., *The New Frontier: E-waste*, Environmental Policy and Law, Vol. 37/1, 2007, p. 24.

¹⁷⁰ The responses are found in UNEP/CHW/OEWG/3/INF/5. *Legal aspects of the full and partial dismantling of ships Comments provided by Parties and others*. Available at: <www.basel.int/meetings/owg/owg3/i05e.pdf> Last visited: 2 May 2008.

Convention.¹⁷¹ The majority of the parties, however, took an ambiguous position and pointed to the difficulties of dividing between the roles of a vessel as a “ship” and as “waste”. Notwithstanding this argument, some states have still relied on the Basel Convention in order to restrict the entry of end-of-life vessels to their territories.¹⁷²

Despite the lack of agreement between the parties to the Basel Convention, some progress was made during the seventh COP. At that meeting, the parties took a decision which recognised 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.”¹⁷³ This decision does not only declare that a ship can be defined as waste, but it also clarifies to some degree the relationship between the waste movement regime and international maritime conventions.¹⁷⁴

5.3 The European Union’s Perspective

In the EU, the waste movement regime has widely been considered to be applicable to ships destined for scrapping. Particularly, the European Commission has vigorously expressed the view that the regulations on waste movement cover end-of-life vessels on their way to scrap yards. This has for instance been stated in the “Green Paper: Towards a Future Maritime Policy for the Union” and repeated in the “Green Paper on better ship dismantling”.¹⁷⁵ In the latter, the Commission declared that the international waste movement regime does, in principle, cover the transfer of end-of-life vessels from industrial to developing countries and that the export from the Community of vessels containing hazardous materials is prohibited by the EU regulation on shipments of waste.¹⁷⁶ This more positive approach to applying the waste movement regime can perhaps to some extent be explained by the EU’s more ambitious work on the protection of the environment, which has, for instance, been expressed by the incorporation of the Basel Amendment into the EU’s regulation on shipments of waste. Nevertheless, it must be noted that to date there have been no cases before the European Court of Justice (ECJ) in which the Regulation on shipments of waste has been applied to ships. Thus, there are no rulings that explicitly clarify the relationship between vessels destined for scrapping and the Regulations.

However, notwithstanding the lack of clear guidance from the ECJ, a few national courts in the Member States of the EU have applied the Community’s regulation on waste movement to ships destined for scrapping. One of the most well-known cases is the one concerning the French aircraft carrier *Clemenceau* that was intended to be scrapped in India in 2006. Despite a lot of protests and struggles on the way, including a demand of proof from the Egyptian authorities that the carrier did not breach the Basel Convention, the carrier had almost reached its final destination when it was ordered back to France by the French President Jacques Chirac. The President took the decision after a ruling of the highest administrative court in France had declared that the ship contained more asbestos than previously thought and that the export was in conflict with the EU’s and the international waste movement regulations.¹⁷⁷

¹⁷¹ *Id.*, See for instance the submissions of the United States and Trinidad Tobago.

¹⁷² This has for instance been done, as mentioned earlier, by Turkey concerning the vessel *Sea Beirut* but also by Egypt when it denied *Clemenceau* passage through the Suez Canal. See fn. 69 above and below 5.3.

¹⁷³ Conference Decision VII/26. Available at: <www.basel.int/meetings/cop7/cop7/docs/33eRep.pdf>

Last visited: 2 May 2008.

¹⁷⁴ The EU has made a reference to this decision in the preamble to Regulation 1013/2006 on shipments of waste, see para. 35.

¹⁷⁵ COM(2006) 275, *Green Paper: Towards a Future Maritime Policy for the Union*, p. 43.

¹⁷⁶ COM(2007) 269, p. 3.

¹⁷⁷ Decision du Conseil d’Etat, Case no. 288801 – 288811, Date of judgement 15 February 2006, “*Clemenceau*”.

Furthermore, Dutch courts have applied the previous EU regulation on waste movement on the ships *Sandrien* and *Otapan*. In the case concerning *Sandrien*, the Dutch authorities had detained the vessel in 2001, since they suspected that the owner was about to transfer the ship to India for scrapping without having given notice in accordance with the waste shipment regulation. The owner appealed the authorities' decision but the Court found the appeal to be unfounded.¹⁷⁸

Otapan was a decommissioned tanker intended to be scrapped in Turkey. The owner, a Mexican company, had therefore filed a notification document concerning the shipping of waste. The shipment was authorised and the tanker sailed towards Turkey. However, Turkey prohibited the vessel to enter its territorial waters, arguing that the vessel contained more asbestos than had been specified in the notification. Thus, the vessel had to return back in order to remove enough asbestos to correspond to the amount stated in the notification. When the ship returned, Greenpeace started proceedings claiming further errors in the notification document. The Dutch Court judged in accordance with the claim from Greenpeace and ordered the authorisation of the export to be revoked.¹⁷⁹

5.4 A Ship as Waste under the EU Regulation

As was described in the previous chapter, waste is defined in the EU as “any substance or object...which the holder discards or intends or is required to discard.”¹⁸⁰ Naturally, the definition of waste is essential for the Community's waste policy and regulations, and has therefore been the subject of considerable discussions in the academic literature.¹⁸¹ In addition to the academic discussion, the ECJ has repeatedly dealt with the meaning of waste. According to the Court, the term waste must be interpreted widely in order to reach a high level of protection. The Court has, moreover, declared that whether a material is waste or not depends on the specific factual circumstances and the decision must therefore be taken on a case by case basis.¹⁸²

In the light of the definition of waste and the abovementioned case law, the status of a ship destined for scrapping will be studied. To begin with, it is undisputed that a ship is an “object” within the meaning of the definition of waste. Thus, what becomes decisive is whether a decision to scrap a vessel falls under the meaning of “discard”. The term “discard” has not been defined in the Regulation 1013/2006 on shipments of waste. However, some guidance can be obtained from the definitions of recovery and disposal operations. The meaning of recovery and disposal are defined in the Regulation by reference to the waste framework Directive 2006/12.¹⁸³ The Directive provides a list that specifies all disposal and recovery operations. The list includes, for instance, “release of material into seas”, which is considered as a disposal operation, and “recycling of metal” considered as a recovery operation.¹⁸⁴ In view of the list and the description of the scrapping procedure provided above in the second chapter, it is clear that a ship being scrapped and the material it contains are subject to procedures defined as disposal or recovery operations. Consequently, the scrapping of a

¹⁷⁸ Council of State, Case no. 200105168/2, Date of judgement 19 June 2002, “*Sandrien*”.

¹⁷⁹ Council of State, Case no. 200606331/1, Date of judgement 21 February 2007, “*Otapan*”.

¹⁸⁰ Directive 2006/12, Article 1(1)a.

¹⁸¹ Cf. Scotford, E., *Trash or Treasure: Policy Tensions in EC Waste Regulation*, Journal of Environmental Law, Vol. 19, 2007, p. 367.

¹⁸² Joined Cases C-418/97 and 419/97, *Arco Chemie Nederland Ltd v Minister Van Volkshuisvesting* [2000] ECR I-4475. Case C-9/00 *Palin Granit Oy* [2002] ECR I-3533. Cf. COM(2007) 269, p. 6.

¹⁸³ Regulation 1013/2006, Article 2.

¹⁸⁴ See Directive 2006/12, Annex IIA entry D7, and Annex IIB entry R4. Cf. Basel Convention, Annex IV, see above 4.2.1.

vessel also falls under the meaning of “discard”. Thus, it can be concluded that a ship intended to be scrapped should be defined as waste.

This conclusion is also in line with the decision reached by the Dutch Court in the case concerning *Sandrien*. The owner of *Sandrien* argued that the vessel did not constitute waste at the time of the authorities’ decision to detain the ship. This argument was, however, rejected by the Court since there was strong evidence that the vessel was about to be scrapped and only insufficient evidence supporting the owner’s claim that the vessel would continue in operation.¹⁸⁵

Having clarified that a ship destined for scrapping can be considered as waste, it must next be examined under which categories of waste listed in the Annexes to the Regulation that a ship falls. Two things can be observed. Firstly, as was described in the second chapter, an old ship usually contains, among other things, asbestos, PCB and lead. These substances are all listed in Annex V of the Regulation. This means that wastes containing the substances are subject to the prohibition concerning export for recovery or disposal to non-OECD countries.¹⁸⁶ Secondly, Annex III contains the following entry:

GC030: Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified dangerous substance or waste.¹⁸⁷

Based on these observations the following conclusions can be made. According to the Regulation on shipments of waste, a ship that has been properly emptied of hazardous materials falls under Annex III and can thus be exported in accordance with the rules applicable to such waste. This means, in practice, that the ship can be exported for recovery operations to the current major shipbreaking states.¹⁸⁸ However, when a ship contains considerable quantities of hazardous substances, the whole vessel will be considered as hazardous waste. Depending on the destination of the ship, this either prohibits or at least restricts export.¹⁸⁹ Thus, export of a vessel for scrapping to the current shipbreaking states, which are all except for Turkey not members of the OECD, must be considered prohibited as long as the vessel has not been properly emptied of all hazardous materials.

The entry GC030 clarifies the status of a ship within the EU waste regulation. A similar entry to GC030 can unfortunately not be found in the Basel Convention. Nevertheless, it still remains to be clarified what should be understood as “properly emptied”. In this regard, the guidelines on shipbreaking could provide some assistance. In practice, however, to properly empty a ship of all hazardous materials is not without problems. As was described before, a ship is usually delivered for scrapping by her own power and must thus be in a seaworthy condition. To properly empty a vessel of all hazardous substances would in most cases result in the ship ceasing to be seaworthy, since pipes containing asbestos and other essential fixtures would need to be removed. Thus, the shipowners face a dilemma. The export to Asia of vessels that have not been properly emptied is prohibited under the Regulation on shipments of waste, but a ship which is properly emptied cannot reach the scrap yards by its own power. As the scrapping capacity in Europe is limited, this dilemma cannot be easily solved.

¹⁸⁵ *Sandrien*, fn. 178, paras. 2.2.2 and 2.2.3.

¹⁸⁶ See Regulation 1013/2006, Annex V and the entries: A2050 (asbestos), A1010 (lead), A1180 (PCB).

¹⁸⁷ Regulation 1013/2006, Annex III, entry GC030. This entry is also found in the OECD Decision (2001)107/Final, Appendix 3.

¹⁸⁸ This is furthermore subject to possible reservations made by those states in Regulation 1418/2007. See above 4.4.2.

¹⁸⁹ Cf. COM(2007) 269, p. 4.

5.5 Enforcement of the Waste Movement Regime

Having illustrated that it is possible to apply the waste movement regime to ships destined for scrapping, the following part will explore the difficulties of enforcing the regulations and the loopholes that can be used in order to avoid the rules. Attention will especially be paid to two issues. Firstly, it will be studied at which moment a ship becomes waste and what evidence exists to prove such a transition. Secondly, attention will be paid to which state has jurisdiction over a ship in order to enforce the waste movement regime, once the ship is considered waste. In other words, it will be analysed which state is responsible for ensuring that the compulsory procedures for exports of waste are followed. Considering the jurisdiction, it will furthermore be discussed how jurisdiction under the waste movement regime is compatible with the rules on jurisdiction laid down in other international regulations applicable to vessels. The focus of this part will be on the Regulation on shipments of waste established by the EU, but the rules under the Basel Convention will also be mentioned in order to give a broad picture. Despite the focus being on the EU, the conclusions are to some extent also applicable to the Basel Convention.

5.5.1 When Does a Ship Become Waste?

One of the main problems when enforcing the waste movement regime is to identify when a ship should be regarded as waste and thus falls under the waste regime. As has been explained above, waste is defined in the EU as objects that the holder intends to discard. Thus, the decisive moment, in which the ship becomes waste, is when the holder, i.e. usually the shipowner, decides to discard the ship.¹⁹⁰ In accordance with what was said above, this moment occurs when the owner takes the decision to scrap the vessel.¹⁹¹ Thus, when a decision to scrap the vessel has been taken, the ship should be considered waste even if it will still call at different ports with cargo before it reaches the scrapping yard. This interpretation of the actual moment of transition to waste is, however, not always reasonable. Consider for instance a situation where a decision to scrap a vessel is taken in January but the actual scrapping is done in October and the vessel remains in traffic for the period between the decision and the actual scrapping. In such a case, it is rather unreasonable to consider the vessel as waste already in January. Ulfstein argues that “when the decision has been taken to scrap the vessel in some distant future, and it meanwhile will be used as a ship, the vessel should not be regarded as waste already from the time of the decision.”¹⁹² In any case, this illustrates the difficulties of establishing how close a temporal connection should be required between the decision to scrap and the actual scrapping when deciding if a vessel is waste or not.

Furthermore, if the vessel is still seaworthy and the owner has not openly declared an intention to scrap the ship, it is a difficult task to determine when the vessel should be regarded as waste.¹⁹³ On the contrary, it is rather easy for the shipowner to avoid the waste movement regulations by hiding the intention to scrap the vessel.

¹⁹⁰ See above 5.4.

¹⁹¹ Cf. the study written by the Norwegian professor Geir Ulfstein. Ulfstein, G., *Legal Aspects of Scrapping Vessels*, revised November 26, 2001, p. 8. The study is available at: www.basel.int/meetings/lwg/lwg4/predocs/Lwg4_04.pdf Last visited: 2 May 2008. As was described earlier the decision to scrap a vessel is usually executed by sending the ship directly to the scrap yard or by selling the ship to a cash buyer.

¹⁹² *Id.*, p. 8.

¹⁹³ *Dismantling Defunct Ships in the UK*, p. 11.

The problems connected to establishing whether a shipowner conceals his intention to scrap a vessel were visible in a case concerning the Danish ferry *Kong Frederik IX*.¹⁹⁴ The Danish Ministry of Environment became aware that the 51-year-old ferry was to be sold, possibly in order to be scrapped in India. The authorities knew that the ferry contained asbestos. When the ship was sold, it was docked in Denmark but registered in St Vincent and the Grenadines. The former owner of the ship, as well as the new owners, claimed that the ship was sold in order to be used in service in the Middle East as a cargo ship. On demand, the Danish authorities received declarations and documentation from the new owner that the claimed activity was indeed about to begin. The ship was therefore classified as non-waste and it was allowed to leave the port. However, after the ferry had left Danish waters it sailed directly to India where it was scrapped.

The case illustrates the difficulties of proving that an owner has decided to scrap a vessel, thereby defining it as waste and making the waste movement regulation applicable. It has not been made clear whether the owner of *Kong Frederik IX* took the decision to scrap the vessel when the ship was anchored in the Danish port, thus providing the authorities with false information, or if the decision was taken later when the ship was out on international water. The statement of the owner was considered enough in order not to classify the ship as waste and the ship could therefore not be detained.

Currently, a similar case is pending in Finland concerning the old ferry *C Express*. The ferry has been detained by the Finnish environmental authorities, since they suspect that the vessel will be scrapped outside Europe under inappropriate conditions.¹⁹⁵ After *C Express* had been sold to a company registered in St Vincent and the Grenadines, a decision to issue a transport ban on the ship was taken by the Finnish Environment Institute. The new owner has consistently denied any intention to send the vessel for scrapping. Firstly, the company declared that the ship will be used as a casino in the Far East, but now it claims that *C Express* will be chartered to another company.¹⁹⁶ The new owner of the ship has filed a complaint on the transport ban to the Administrative Court. A ruling from the Court is, however, not expected in the near future. Pending the Court's decision, *C Express* is currently laying in the harbour.

In order to facilitate proving the intention to scrap a vessel, certain circumstances have been put forward as possible evidence.¹⁹⁷ To begin with, the existence of a scrapping contract is certainly strong evidence of an intention to discard a ship. For instance, the standard scrapping contract, DEMOLISHCON, issued by the Baltic International Maritime Council (BIMCO), contains a provision explicitly stating that the ship is sold for the purpose of scrapping only.¹⁹⁸ Furthermore, in order to prove intention to scrap a vessel, preparatory actions such as cancellation or modification of insurance, a notice of destination to a port, or notices given to the crew can function as evidence. Finally, it has been argued that proof of scrapping intentions can be gathered from phone calls and e-mails of the involved parties. The problem is of course that access to such information is usually restricted. In the case of *C*

¹⁹⁴ The case is presented in COWI/ENV 2007, p. 29.

¹⁹⁵ See Press Release, "SYKE issued transport ban on M/S *C Express*". Available at: <www.environment.fi/default.asp?contentid=241785&lan=en> Last visited: 2 May 2008.

¹⁹⁶ See Press Release, "New plans for using M/S *C Express*". Available at: <www.environment.fi/default.asp?contentid=244006&lan=en> Last visited: 2 May 2008.

¹⁹⁷ See Ulfstein, pp. 8-9. See also *Shipbreaking and the Legal Obligations Under the Basel Convention*, submitted by Basel Action Network and Greenpeace International, 10 January 2002, p. 2. Available at: <www.ban.org/Library/ShipbreakingLegal%20Final.pdf> Last visited: 2 May 2008.

¹⁹⁸ DEMOLISHCON, Article 16. Available at: <www.bimco.org/Corporate%20Area/Documents/Document_samples/Sundry_Other_Forms/DEMOLISHCON.aspx> Last visited: 2 May 2008. It remains to be seen whether the use of this relatively new standard contract will be widespread.

Express, the Finnish authorities' attention was raised by the vessels old age, the price paid for the ship, which was equivalent to the ship's scrap value, and the difficulties the former owner had had to sell the ship.¹⁹⁹

Another problem that makes enforcement difficult is that because of the movable character of vessels they are hard to monitor. Thus, co-operation between national environmental authorities and access to information is essential in order to enforce the waste movement regime to vessels destined for scrapping.

5.5.2 Jurisdiction Issues

Questions concerning jurisdiction over ocean-going vessels are complicated, since a vessel can be registered in one state, i.e. the flag state, but sail on the high seas and call ports belonging to foreign states, i.e. port states. Furthermore, ships might be subject to the jurisdiction of coastal states when sailing in their territorial waters. Finally, the owner of the vessel can be a company registered in a completely different state.

As regards vessels destined for scrapping, the question of jurisdiction has been debated in view of the fact that two competing systems of rules concerning jurisdiction can be regarded as applicable, i.e. the waste movement regime and the United Nations Convention on the Laws of the Sea (UNCLOS).

Firstly, there are rules on jurisdiction in the waste movement regime. As has been explained above, according to the Regulation on shipments of waste, the competent authorities of the state of dispatch, transit and destination must consent to the shipment of waste.²⁰⁰ The competent authority of dispatch is, furthermore, required to assist with the notification procedure and to ensure that the waste is taken back if the export is not carried out as planned.²⁰¹ Thus, the competent authority of dispatch has the main responsibility for the movement of the waste. According to the Regulation on shipments of waste, the competent authority of dispatch is defined as the authority for the area from which the shipment is planned to be initiated or is initiated.²⁰² Ulfstein has argued that this means the competent authority of dispatch is the designated authority of the area from which the movement starts or is planned to start.²⁰³ With movement is meant the physical action of moving the waste. Furthermore, according to Ulfstein, this indicates that the state where the ship becomes waste has jurisdiction to enforce the waste regulation, whether or not the ship in question is flying the flag of the state in question.²⁰⁴ Consequently, it is the state in which the ship is situated when it becomes waste that has jurisdiction to enforce the waste movement regulations. Using maritime terminology, it is the port state that has jurisdiction. In view of this, once a vessel is intended to be scrapped and thus has become waste, all states on whose territorial waters the ship subsequently sails or whose harbours are called, can be considered as exporting states or transit states and as a result theoretically exercise jurisdiction.

In addition to port state jurisdiction, some environmental NGOs have argued that also flag states have jurisdiction to enforce the waste movement regulations on ships flying their flags.²⁰⁵ Could flag states enforce the waste movement regime, this would increase the

¹⁹⁹ See "*SYKE issued transport ban on M/S C Express*", fn. 195.

²⁰⁰ See above 4.4.3.

²⁰¹ See above 4.4.4 and Regulation 1013/2006, Article 7 and Article 22. Cf. Basel Convention, Article 6.

²⁰² Regulation 1013/2006, Article 2(19).

²⁰³ Ulfstein, p. 12.

²⁰⁴ *Id.*, p. 13.

²⁰⁵ See *BAN Comments and Proposals for Resolving Basel Convention Shipbreaking Issues*, submission by Basel Action Network, 6 January, 2004, pp. 8-13.

Available at: <www.ban.org/Library/BAN_Submission_shipbreaking_jan04.pdf> Last visited: 2 May 2008.

number of states having jurisdiction and strengthen the enforcement of the regulations. However, this argument appears not to be well-founded. The waste movement regulations do not point out flag states as having jurisdiction. In the absence of any express provisions in the waste movement regulations, a flag state as such has no obligation or right to enforce the waste movement regime upon a vessel flying its flag.²⁰⁶

The second system of rules on jurisdiction is established by the UNCLOS.²⁰⁷ The UNCLOS defines the rights and responsibilities of nations in their use of the world's oceans. The rules on jurisdiction established by the UNCLOS are based on a progression of jurisdictional competence depending on the distance to land.²⁰⁸ In short, a state has complete jurisdiction over its internal water, which comprises among other things the state's ports.²⁰⁹ Behind the internal waters lays the territorial sea. On the territorial sea a state still has jurisdiction to enforce its legislation upon a foreign ship. This is, however, qualified by the ship's right of innocent passage.²¹⁰ Innocent passage means navigation through the territorial sea which is not prejudicial to the peace, good order or security of the coastal state.²¹¹ Finally, when a ship is on the high seas, subject to a few exceptions, only the flag state has jurisdiction to enforce its rules and regulations. Consequently, other states cannot enforce their legislation on a vessel flying a foreign flag when the ship in question is on the high seas.²¹²

In view of these two systems of rules on jurisdiction, some concerns have been raised on how the rules on jurisdiction of the waste movement regime and the UNCLOS are compatible with each other.²¹³ It has, for instance, been questioned how a port state can fulfil its obligation under the waste movement regulations to ensure that the requirements for export are met by an end-of-life vessel flying a foreign flag, when bearing in mind that the vessel according to UNCLOS has a right of innocent passage on the territorial sea. As regards this issue, however, the European Commission has held the two systems of rules as being compatible with each other. The reason for this view is that the UNCLOS does provide rights for coastal states to enforce applicable rules of international law that concern environmental protection on foreign vessels.²¹⁴ Furthermore, in the case concerning *Sandrien*, the owner of the ship tried to argue that the detention of the vessel was in breach of UNCLOS.²¹⁵ The owner argued that according to Article 211 of the Convention, a state that has drawn up special requirements to protect the maritime environment is required to properly announce these requirements, and to inform the competent international organisation of them. However, the Dutch Court declared that the UNCLOS did not impede the fact that pursuant to the EU regulation on shipment of waste, prior notification was required before exporting the ship. The Court considered the notification not to be a special requirement under Article 211.²¹⁶ Moreover, in practice problems relating to the compatibility of the waste movement regime and the UNCLOS are likely to be avoided, since states tend to enforce the waste movement regulations only on defunct ships lying in their ports. In such cases, the two systems of rules

²⁰⁶ Cf. Ulfstein, pp. 13-14. These considerations should also apply to the Basel Convention, although the Convention uses the term "country of export" instead of "state of dispatch". In his study, Ulfstein's point of departure is the Basel Convention, but he assumes that the rules in the EU regulation are interpreted in the same way. Ulfstein, p. 15.

²⁰⁷ Currently 155 states have joined the Convention, including the EC.

²⁰⁸ See Evans, M., *International Law*, Oxford University Press, 2006, pp. 629-630.

²⁰⁹ Churchill, R., R., Lowe, A., V., *The Law of the Sea*, Manchester University Press, 1999, p. 60.

²¹⁰ Evans, p. 630.

²¹¹ UNCLOS, Section III.

²¹² Evans, p. 636.

²¹³ See for instance *Dismantling Defunct Ships in the UK*, p. 11 and COM(2007) 269, pp. 4-5.

²¹⁴ See COM(2007) 269, p. 5. Cf. UNCLOS, Article 21(f) and Article 211.

²¹⁵ *Sandrien*, para. 2.4. See fn. 178.

²¹⁶ *Id.*, para. 2.4.3.

on jurisdiction do not contradict each other because, as was explained above, the port state has complete jurisdiction over vessels located in its own ports according to both systems of rules.

However, the rules on jurisdiction remain problematic. Concerning the scrapping of vessels, they can be regarded as the Achilles heel of the waste movement regime. As has been explained above, the Regulation 1013/2006 on shipments of waste applies only to shipments of waste having a link to the Community.²¹⁷ Thus, if the decision to scrap a ship is taken when the vessel is outside the EU and the ship does not subsequently return to European waters, the Regulation on shipments of waste never becomes applicable. Similar considerations concern the Basel Convention, since the Convention explicitly requires the hazardous waste movement to be transboundary in order to make the Convention apply.²¹⁸ No transboundary movement has occurred if the ship was on the high seas when the decision to scrap the vessel was taken and it after that sailed straight to the shipbreaking yard. Also, an end-of-life vessel that never visits the territory of a member state of the Basel Convention or the EU, after the decision to scrap the ship has been taken, will fall outside the waste movement regime.²¹⁹ Consequently, shipowners that manage to hide the intention to scrap a ship, until the vessel has reached the high seas or at least sailed outside European waters, will avoid being caught by the Regulation on shipments of waste.²²⁰ The loophole in the jurisdiction can, furthermore, be taken advantages of by selling the vessel to a cash buyer situated outside Europe or in a state not a party to the Basel Convention, while claiming that the vessel will continue to be in traffic. The cash buyer can then move the ship out on international waters before subsequently selling it to a scrap yard. By using an intermediary company registered abroad, the shipowner can more easily hide the intentions and protect himself from bad publicity.

Additionally, the enforcement of the waste movement regime to ships destined for scrapping is weakened since a port state's interest of enforcing regulations on foreign ships is usually rather weak in cases where no own interests are at stake.²²¹ In addition, despite having the main responsibility for enforcing the regime, a port state has inadequate possibilities to access information concerning foreign vessels. As shown earlier, this makes it difficult to reveal plans to scrap a ship and therefore to decide whether the waste movement regime is applicable or not.

Finally, a concern raised about the present jurisdiction relates to the risk that foreign vessels, which have been detained by a port state under the waste movement regime, will be abandoned in port by their owners.²²² Considering the lack of scrapping facilities in the western world and the costs for pre-cleaning a vessel, it may be tempting for a shipowner to simply abandon an end-of-life vessel that has been detained. The port state has weak possibilities to hold the owner of the vessel responsible if the ship is sailing under a foreign flag. In the end, the costs for scrapping the vessel would thus be put on the port state that may have little or no connection to the ship or to the shipowner.²²³ Also, the obligation to take back an illegal shipment of a vessel, in combination with the risk of abandonment, may

²¹⁷ See above 4.4.1. The regulation covers, shipments of waste between Member States, to or from third countries or in transit through the Community, Regulation 1013/2006, Article 1.

²¹⁸ Cf. Basel Convention, Article 1 and Article 2(3).

²¹⁹ Consider also that a developing country that is a member of the Basel Convention usually has weak possibilities to enforce the waste movement regime on ships destined for scrapping located in the country.

²²⁰ Cf. COM(2007) 269, p. 5.

²²¹ Churchill, *et al*, p. 66.

²²² See the Maritime and Coastguard Agency's comment (Ev. 84, para 29) presented in *Dismantling Defunct Ships in the UK*, p. 11.

²²³ The aforementioned *Sandrien*, as well as *Silver Ray*, a vessel detained in Belgium, are examples of ships that have become problems for the national authorities after they have been detained because of suspicions that there would otherwise be a breach the waste movement regime. See COWI/TREN 2004, pp. 37-38.

restrain states from enforcing the waste movement regime although they may have evidence showing that a vessel is intended to be exported in breach of the regulations.²²⁴

6. The Draft Convention on Ship Recycling

6.1 Background

As the previous insights have shown, shipbreaking is a complex and multi-faceted issue and so far the problems related to the scrapping of vessels have not been solved. The present regulatory situation appears not to be satisfactory. Neither has the waste movement regime succeeded to hinder the stream of hazardous ships from reaching Asia, nor have the enacted guidelines on ship scrapping managed to improve the conditions in the scrapping yards sufficiently. At the same time, the need for scrapping is expected to increase.

In the light of this, there was agreement within the MEPC that the IMO should develop a mandatory instrument governing the scrapping of vessels. The idea was to create a binding and globally applicable regulation for international shipping and scrapping facilities.²²⁵ In the end of 2005, the IMO therefore adopted a resolution that requested the MEPC to develop such a mandatory instrument on ship recycling.²²⁶ A first draft text for the Convention was submitted by Norway the following year. Since then the work has progressed within different groups that have been reporting to the MEPC. Currently, the work has reached an advanced stage and the intention is to submit the draft to the IMO Council in order to adopt the new Convention in May 2009.²²⁷

Although the Convention is still being negotiated, it has been considered unlikely that its basic structure would change in any substantive way.²²⁸ This chapter will thus outline the general structure and elements of the draft Convention. Furthermore, some of the issues still being negotiated will be described, followed by an overview of the environmental NGOs' critique of the Convention. Following that, the draft Convention will be assessed and it will be examined whether the regulation constitutes an improvement of the present situation regarding scrapping of vessels. Finally, the relationship between draft Convention and the waste movement regime will be examined.

6.2 Objectives and Rules

The draft Convention aims to establish a "cradle to grave" approach covering the whole life of a vessel. Thus, the Convention will regulate the design and construction of ships in order to facilitate their safe and environmentally sound recycling. Further, the Convention will provide rules on how ship scrapping yards are to be operated in a safe and environmentally sound manner. Finally, the Convention will set up certificate and reporting requirements, in order to establish an appropriate enforcement mechanism for the scrapping of vessels.²²⁹

²²⁴ Cf. the Maritime and Coastguard Agency's comment (Ev. 84, para 29) presented in *Dismantling Defunct Ships in the UK*, p. 11

²²⁵ Mikelis, *Developments and Issues on Recycling of Ships*, p. 2.

²²⁶ IMO Resolution A.981(24) *New Legally-Binding Instrument on Ship Recycling*.

²²⁷ See reports from the MEPC 56th and 57th session. Available at: <www.imo.org> Last visited: 2 May 2008.

²²⁸ Mikelis, *Developments and Issues on Recycling of Ships*, p. 4.

²²⁹ *Id.*, p. 4.

At the moment, the Convention consists of 21 Articles.²³⁰ The Articles are rather general to their nature, setting out the rights and obligations of the parties and procedural aspects, such as amendment and entry into force of the Convention. The more substantive provisions are instead to be found in the Annex, which is divided into four chapters. The first chapter contains a few general provisions, including definitions. The second chapter contains certain requirements for ships. It is divided into three parts. Part A governs the design, construction, operation and maintenance of ships. Part B contains provisions about the preparations for ship recycling. Part C, finally, concerns surveys and certification of ships. The third chapter of the Annex contains requirements for scrapping facilities, and the fourth chapter provisions on reporting procedures. Additionally, the Convention has six appendices that contain standard forms for certificates and documents as well as a list of the hazardous materials which are covered by the regulation.²³¹ Finally, in addition to the articles, the annex and the appendices, the draft Convention requires that guidelines are developed that shall specify the procedures outlined in the Convention.²³²

The draft Convention establishes several control elements. These elements have been constructed to create a control and enforcement mechanism that is effectively implemented throughout the life of a ship, while at the same time avoiding an unnecessary increase of the administrative burden conferred upon the parties, the shipping industry and the recycling facilities.²³³ To begin with, the draft Convention prohibits or restricts the *installation and use of certain hazardous materials* in ships.²³⁴ This provision concerns the use and installation of materials when building new ships and repairing old ones. In the long run, it is supposed to decrease the amounts of hazardous materials contained in ships. Secondly, the draft Convention demands the creation of a compulsory *inventory* of hazardous materials for every ship.²³⁵ The purpose of this inventory is to identify hazardous materials onboard, their location and approximate quantity. When an inventory has been established, it must be kept updated throughout the life of the vessel, reflecting changes in the ship's structure and equipment. Thirdly, the inventory is subject to an *initial survey*, which will verify that the information presented in the inventory is correct. The initial survey is later followed by additional surveys during the lifetime of the ship, and a *final survey* before the ship is scrapped.²³⁶ Fourthly, the draft Convention creates an *authorisation system for shipbreaking facilities*. The authorisation system demands that the yards fulfil certain requirements.²³⁷ This is linked to a provision requiring that ships destined for scrapping are only allowed to be sent to authorised yards.²³⁸ The final control element established by the draft Convention demands that after the final survey, but before the ship is sent for scrapping, the vessel must be awarded an international certificate which states that the ship is *ready for recycling*. In addition, an individual *ship recycling plan*, which specifies in what manner each ship will be scrapped, must be issued by the scrap yard. The scrap yard is, furthermore, obligated to issue a *statement that the scrapping is completed* after a vessel has been dismantled.²³⁹

²³⁰ The version of the text of the draft Convention referred to in this document is that reproduced in the report of the 56th session of the MEPC in July 2007 by the MEPC's working Group on ship recycling as set out in document MEPC 56/WP.5

²³¹ Materials controlled are, among others, asbestos and PCBs. See Draft Convention, Appendix 1.

²³² At the moment there are nine guidelines connected to the Convention, one general, five about ships and three about the scrapping yards. Cf. Mikelis, *Developments and Issues on Recycling of Ships*, p. 5.

²³³ Mikelis, *Developments and Issues on Recycling of Ships*, p. 6.

²³⁴ Draft Convention, Ch. 2 Part A Regulation 4.

²³⁵ *Id.*, Ch. 2 Part A Regulation 5.

²³⁶ *Id.*, Ch. 2 Part C Regulation 11.

²³⁷ *Id.*, Ch. 3 Regulation 17.

²³⁸ *Id.*, Ch. 2 Part B Regulation 8.

²³⁹ *Id.*, Ch. 4 Regulation 26.

The certification of ships, which is required by the draft Convention, is carried out by the Administration or by an organisation that the Administration has recognised. Article 2 of the draft Convention defines the Administration as the government of the state whose flag the ship is entitled to fly. This is, in other words, the flag state. As regards the shipowner, the owner is required to notify the Administration of the intentions to scrap a ship so that the Administration can prepare the final survey and the required certifications. Finally, the scrapping yard that is preparing to receive a ship for scrapping, must also notify its competent authority.²⁴⁰

The draft Convention contains provisions concerning inspections of ships and procedures for dealing with violations of the rules. To begin with, according to Article 8 a ship to which the Convention applies can be subject to inspections in any port of a party, in order to determine if the ship is in compliance with the Convention. However, if no special circumstances are at hand, the inspection is limited to verifying that the ship carries a valid inventory of hazardous materials.²⁴¹ As concerns violations of the rules, the draft Convention contains a provision stating that the parties shall co-operate in the detection of violations and the enforcement of the rules. Furthermore, the Convention includes a provision which demands that when there is sufficient evidence that a ship is operating in violation of the rules, the party holding the evidence may request an investigation of the ship as soon as it enters ports under the jurisdiction of another party. The report of the investigation must subsequently be submitted to the party requesting the investigation and to the Administration, i.e. the flag state, so that appropriate actions can be taken. Ship scrapping facilities can also be subject to inspections requested by a party.²⁴² The draft Convention requires, moreover, that any violations of the rules must be prohibited by national laws, and sanctions must be established by the Administration wherever the violation occurs. The Administration has also a duty to inform a party that has reported an alleged violation of any measure it has taken in response to the violation. Similar considerations apply to ship recycling facilities. Finally, any violations of the draft Convention, which occur within the jurisdiction of any party, must be prohibited and sanctions must be established under the law of the party in question. The party can then either initiate proceedings under its own law, or inform the Administration of the ship that a violation has occurred.²⁴³ All possible efforts must be made to avoid a ship being unduly detained or delayed when inspecting ships or detecting and enforcing violations.²⁴⁴

6.3 Issues under Discussion

Since the draft Convention is still being developed, some issues are yet unsolved and remain under discussion. Regarding the mandatory inventory of hazardous materials, it has been discussed how detailed the inventory should be and when the inventory should be established for existing ships. Currently, the Convention requires that a survey for the inventory must be held within five years from the entry into force of the Convention. However, some parties have considered this to be too burdensome in view of the large number of vessels that exist.²⁴⁵ The whole survey system has, furthermore, been criticised for being too burdensome. Some parties have argued that periodical surveys are unnecessary. According to them, only an initial

²⁴⁰ *Id.*, Ch. 4 Regulation 25.

²⁴¹ Notice that the Article is in square brackets, which means that it is drafted but not agreed.

²⁴² Draft Convention, Article 9.

²⁴³ *Id.*, Article 10.

²⁴⁴ *Id.*, Article 11.

²⁴⁵ Mikelis, *Developments and Issues on Recycling of Ships*, p. 7.

and a final survey for new ships, and just a final survey for existing ships would be sufficient.²⁴⁶

Another very controversial issue concerns the pre-cleaning of ships.²⁴⁷ Some parties to the negotiations have argued that pre-cleaning should be conducted before sending a ship to the recycling yard. Parties opposing this view have in response argued that pre-cleaning would make ships unseaworthy and would thus make it impossible to export vessels for scrapping. Currently, the draft Convention has tried to solve this difficult issue by not requiring pre-cleaning of a vessel if the recycling facility is fully authorised to manage the type of hazardous materials contained in the ship. Thus, if the facility lacks the necessary authorisation the shipowner must either pre-clean the ship or turn to another yard.²⁴⁸

The scope of the draft Convention has also been the object of discussion. At the moment, government owned ships fall outside the Convention, but some parties have considered this exclusion not to be consistent with the spirit of the regulation.²⁴⁹ Furthermore, it was agreed that the draft Convention should only apply to ships over 500 GT. The Convention, nevertheless, contains a provision which declares that each party to the Convention must ensure by the adoption of appropriate measures that also smaller ships act in a manner consistent with the Convention, so far it is reasonable and practicable.²⁵⁰ Finally, to date no agreement has been reached concerning whether ships that only trade domestically should be included in the scope the Convention.²⁵¹

6.4 Critique of the Draft Convention

Notwithstanding the issues still under discussion by those involved in the drafting process, the draft Convention has in its present form been the target of strong criticism by environmental NGOs. The heart of the critique is that the Convention, in controlling the scrapping of vessels, fails to meet the standards already set by the Basel Convention.²⁵² According to the environmental NGOs, the draft Convention must provide an “equivalent level of control” to the Basel Convention. This demand is based on Article 11 of the Basel Convention, which concerns the right of parties to the Convention to enter into other multilateral agreements or arrangements. According to Article 11, the parties to the 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 provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.”

²⁴⁶ *Id.*, p. 8.

²⁴⁷ *Id.*, p. 8.

²⁴⁸ Draft Convention, Ch. 2 Part B Regulation 8(2).

²⁴⁹ Mikelis, *Developments and Issues on Recycling of Ships*, p. 9.

²⁵⁰ Draft Convention, Article 3.

²⁵¹ Mikelis, *Developments and Issues on Recycling of Ships*, p. 9. See the definition of “ship” in the Draft Convention, Article 2(10).

²⁵² The critique has for instance been presented in: *Critique of Draft I.M.O. "International Convention for Safe and Environmentally Sound Recycling of Ships"*, prepared by the Basel Action Network on behalf of the Global NGO Platform on Shipbreaking, 15 March 2006.

Available at: <http://ban.org/Library/IMO_Draft_Convention_CritiqueFINAL.pdf> Last visited: 2 May 2008.

The environmental NGOs have argued that the draft Convention does not pay due regard to this provision and that it derogates from the standards established by the Basel Convention.²⁵³ In this regard, the NGOs have, among other things, argued that the Convention will not reduce the transboundary movements of hazardous waste, which is one of the main aims of the Basel Convention.

Moreover, environmental NGOs have pointed out that responsibility can usually be avoided by the shipowner under the draft Convention, since the Convention primarily confers the responsibilities on the flag state or the shipbreaking state. According to the NGOs, this cannot be regarded as a fair distribution of responsibilities for the scrapping of vessels.²⁵⁴ Finally, the environmental NGOs are also concerned that the shipowners are not really interested in preventing hazardous materials contained in ships from being exported to developing countries, and that ultimately the draft Convention is used by the shipping industry to avoid adhering to principles of environmental justice embodied in the Basel Convention.²⁵⁵

6.5 An Assessment of the Draft Convention

In the light of the critique just presented and the problems described earlier concerning the application of the waste movement regime to ships sent for scrapping, it will next be examined to what extent the draft Convention can improve the present situation regarding the scrapping of vessels and whether it will succeed in solving the problems related with shipbreaking.

The main benefit of the draft Convention is that it provides mandatory rules specifically addressing the issue of shipbreaking. Should these rules be widely accepted, and hopefully they will be accepted by as many states as possible, a truly global regulation would be created. Binding and global rules are needed to govern the scrapping of vessels. As has been illustrated, the enforcement of the waste movement regime to ships destined for scrapping is currently rather weak as it remains disputed whether the regime applies to end-of-life vessels. Furthermore, since ships are movable they can easily circumvent the regime by shifting to a more favourable jurisdiction. These problems would be avoided if the draft Convention was accepted worldwide. Globally accepted rules on shipbreaking would also help to create a so called “level playing field” for the shipping industry where all actors would be subject to same rules and procedures.²⁵⁶

The draft Convention contains some further improvements. Firstly, the subjection of shipbreaking facilities to compulsory authorisation procedures, along with the establishment of an inventory of hazardous materials contained in a ship, are significant steps to improve the working conditions in the scrapping yards and to protect the environment. Secondly, the restricted use and installation of hazardous materials will in the long run ease the harm that shipbreaking currently causes. Thirdly, the “cradle to grave approach” is advantageous. The scrapping of vessels concerns so diverse areas that a wide approach is needed, covering the whole life span of a ship. On the other hand, this wide approach may cause the regulation to be watered down, as reaching agreement on a wide range of issues requires many

²⁵³ *Id.*, The environmental NGOs have argued that out of 24 elements identified by the NGOs as necessary to redress the ship scrapping crisis, the Draft Convention only covers two, while the Basel Convention addresses 20.

²⁵⁴ *Id.*, under section 3 and 4.

²⁵⁵ See Press Release, “*Draft I.M.O. Treaty Called ‘Shockingly Inadequate’ in Addressing Global Ship Scrap Crisis*”, 16 March 2006, p. 2.

Available at: <www.greenpeaceweb.org/shipbreak/prfinal160306.pdf> Last visited: 2 May 2008.

²⁵⁶ Cf. the Commission’s call for a level playing field in COM(2007) 269, p. 10.

compromises. Bearing this in mind, it is understandable that most of the substantive provisions of the draft Convention are found in the Annex and in the guidelines. This offers flexibility in the present negotiations and makes it easier to amend the provisions in the future.

In order for the substantive provisions to be adhered to in practice, effective enforcement is essential. It remains to be seen if the enforcement system established by the draft Convention will be followed properly. As described above, the draft Convention creates a system that emphasises the co-operation between parties to detect and enforce violations, and the parties are furthermore required to establish adequate sanctions. This system places the main responsibility for enforcement on the flag state, notwithstanding that other states also have a right to start proceedings if violations occur within their jurisdiction.

When considering the uncertainties connected to the questions of jurisdiction under the waste movement regime, the clear enforcement and jurisdiction rules established by the draft Convention are clearly an improvement. Nevertheless, the port state's access to information is still rather limited. As described above, the right of inspection is limited to verifying that the inventory of hazardous waste is valid. A more detailed inspection can only be done if the ship does not carry a valid certificate or if a number of other circumstances listed in the Convention are at hand.²⁵⁷ This restricts the port state's possibilities to detect violations of the rules.

As regards the enforcement, it can furthermore be questioned if the flag state, which may often lack capacity and interest, should be given the main responsibility for enforcing the rules. The problem of using flags of convenience in order to avoid responsibility is well-known.²⁵⁸ The shipowner could still circumvent the rules of the draft Convention by choosing a convenient flag, i.e. a flag of a state that does not have the capacity to conduct inspections and to effectively enforce the Convention. Yet another problem is that the flag state may not have jurisdiction over the shipowner, if the company owning the vessel is registered in another state.²⁵⁹

Finally, the draft Convention contains a deficiency that was already pointed out by the environmental NGOs. This concerns the fair allocation of the responsibilities for shipbreaking established by the draft Convention.²⁶⁰ Five main actors can be said to be involved in the procedure of scrapping a vessel. These are: the port state, the flag state, the shipbreaking state, the shipowner and the shipbreaker. As said before, the draft Convention places the main responsibility for the control procedures on the flag states. This includes, among other things, the responsibility for the survey and certification system established by the Convention. The shipbreaking states are in charge of the authorisation of the shipbreaking facilities within their territories. In this regard, the shipbreaking state, in co-operation with the shipbreaker, is required to improve their scrapping facilities in order to meet the requirements of the Convention and carry on the scrapping industry. Regarding the responsibility of the port states, they have the aforementioned right to inspect any ship and start proceedings if violations are detected within their jurisdiction. As regards the responsibility of the shipowners, it is restricted to notifying the Administration of the intentions to scrap a vessel and keeping the inventory of hazardous materials updated. Ultimately, as long as the controls established by the draft Convention are followed, ships containing hazardous materials can thus be scrapped in the shipbreaking yards in Asia. In the end, this means that the shipowners are able to profit on selling ships containing hazardous materials for scrapping, without

²⁵⁷ Draft Convention, Article 8.

²⁵⁸ See for instance Churchill, *et al*, pp. 273-274.

²⁵⁹ *Critique of Draft I.M.O. "International Convention for Safe and Environmentally Sound Recycling of Ships"*, p. 5.

²⁶⁰ *Id.*, p. 4.

having to bear the costs that are subsequently caused by the materials when the ships are scrapped. This is not in accordance with principles of international environmental law. According to the internationally recognised *polluter pays principle*, it is the person or company who creates an environmental harm that should bear the costs for the remedy of that harm.²⁶¹ In the case of shipbreaking, this principle has been disregarded as the shipowners, which are the ones gaining profits of the vessels during their time in service, avoid bearing the costs for the pollution that the ships cause when they are scrapped. Instead, these costs are ultimately paid by the shipbreaking states and those people negatively affected by shipbreaking. In view of this, the draft Convention does not allocate responsibilities and costs for the scrapping of vessels in a reasonable way.

6.6 The Draft Convention and the Waste Movement Regime

Finally, the relationship between the draft Convention and the existing waste movement regime will be discussed. As was explained above, Article 11 of the Basel Convention prohibits the draft Convention to derogate from the environmentally sound management of waste as is established by the Basel Convention.²⁶² In other words, the draft Convention should provide an “equivalent level of control”. This requirement has also been expressed repeatedly in decisions taken by the parties to the Basel Convention.²⁶³ The European Commission has likewise declared that the draft Convention should not derogate from the standards established by the Regulation on shipment of waste.²⁶⁴

To decide whether the present draft Convention provides an equivalent level of control compared to the Basel Convention is not easy. This is because the scope of the control established by the Basel Convention is disputed and since some issues in the draft Convention are still unsettled. As described earlier, the environmental NGOs are of the opinion that the present draft Convention does not meet the standards laid down in the Basel Convention. This opinion is, however, not shared by everyone. Advocates for the existence of an equivalent level of control have emphasised that the draft Convention does not necessarily need to be a replica of the Basel Convention, as long as the Convention generates real change in the conditions under which ships are scrapped.²⁶⁵ In a study submitted by Japan at COP-8, it was argued that the present draft Convention does provide an equivalent level of control.²⁶⁶

As regards the relationship between the draft Convention and the Regulation on shipments of waste, the situation is more clear-cut. The Regulation on shipments of waste prohibits the export of waste for disposal to non-OECD countries. Only non-hazardous waste for recycling

²⁶¹ The polluter pays principle is, for instance, found in the Rio Declaration on Environment and Development, Principle 16. It has also been adopted by the OECD and the EU. For a good overview of the principle see Sadeleer N., *Environmental Principles: from Political Slogans to Legal Rules*, Oxford University Press, 2002, pp. 21-60.

²⁶² Basel Convention, Article 11.

²⁶³ Conference Decision VII/26 and Conference Decision VIII/11. Available at: <www.basel.int/ships/commentsOEWG6/oewg6.html> Last visited: 2 May 2008.

²⁶⁴ Cf. COM(2007) 269, p. 11.

²⁶⁵ *Workshop Report: Ship Recycling – the draft IMO Convention on the safe and environmentally sound recycling of ships*, Lisbon, 24 April 2007. Available at: <www.emsa.eu.int/Docs/workshops/ws20070424.pdf> Last visited: 2 May 2008.

²⁶⁶ See the Japanese submission: UNEP/CHW.8/INF/39 *Development of the draft International Convention for the Safe and Environmentally Sound Recycling of Ships – Assessment in the Context of Decision VII/26*. Available at: <www.basel.int/meetings/cop/cop8/docs/i39e.pdf> Last visited: 2 May 2008. See also *Comments received pursuant to OEWG6 decisions*, which include the submissions of India and the EU dealing with the issue of equivalent control. Available at: <www.basel.int/ships/commentsOEWG6/oewg6.html> Last visited: 2 May 2008.

is allowed to be exported to non-OECD countries. Consequently, ships exported from Europe to the ship yards of Asia must be pre-cleaned, which is also expressed in the entry GC030 of Annex III. However, as was described in this chapter, the draft Convention does currently not require pre-cleaning if the scrapping facility is authorised to handle the hazardous materials contained in the ship. Thus, the draft Convention does not in its present form provide an equivalent level of control when compared with the Regulation on shipments of waste. To provide an equivalent level of control, either one of the regulations must be modified. Changing the EU's Regulation on shipments of waste appears, however, not to be an option. The European Commission has declared that there will be no changes in the Regulation before the draft Convention achieves an equivalent level of control over end-of-life vessel.²⁶⁷ The EU Regulation on shipments of waste would still continue to apply to ships sent for scrapping from Europe if the draft Convention enters into force in its present form. This would not be a satisfactory outcome since it could, among other things, increase the risk of out-flagging European vessels. It remains to be seen how this dilemma will be settled.

7. Conclusions and Reflections

7.1 Conclusions

Shipbreaking is a complex and a multi-faceted issue. The subject has attracted the interest of several organisations but it does not fall under one single competence. Thus, the ILO, the IMO and the parties to the Basel Convention, all have legitimate interests to consider the practice of shipbreaking. In view of the current shipbreaking procedures, it is also evident that actions are necessary in order to restrict the severe harms currently caused by the scrapping of vessels.

In this study it has been shown that the present waste movement regime can be applied to ships destined for scrapping. In many ways, it is not far-fetched to consider a vessel destined for scrapping as waste, in the same manner as a car, a computer or other commodities are considered waste when they are intended to be discarded. Nevertheless, ocean-going vessels destined for scrapping are at the same time very different, although they fulfil the requirements that define waste. Vessels are large constructions with a relatively long life-length and they are able to operate around the world, sometimes far from where they were constructed. Because of these factors, ships destined for scrapping can hardly be accommodated within procedures established by the waste movement regime.

Moreover, the enforcement of the waste movement regime to ships destined for scrapping is problematic. In order to define a vessel as waste, an intention to scrap the ship must be established. As has been shown in this study, this is often a rather difficult, if not impossible, task. Furthermore, a movable vessel can escape enforcement relatively easily if the shipowner hides the intention to scrap the ship until it is out on safe waters. Finally, the enforcement of the waste movement regime is also weakened by the fact that the applicability of the Basel Convention to ships destined for scrapping is disputed.

In this thesis it has been argued that the IMO draft Convention is in many ways an improvement compared with the waste movement regime. The draft Convention takes notice of the special features of ocean-going vessels and creates a global and binding regulation exclusively focused on the life of a vessel from its construction until it has been scrapped. It requires inventories of hazardous materials for all ships, supports green construction of

²⁶⁷ COM(2007) 269, p. 11.

vessels and requires the authorisation of shipbreaking facilities. These are all good measures aiming at solving the problems related with the scrapping of vessels.

As has been argued in this study, the draft Convention does, however, contain some weaknesses. The present emphasis laid on flag state enforcement, with a restricted possibility for other states to detect and enforce violations, raises concern whether the provisions of the draft Convention will be followed in practice. The emphasis on flag state enforcement is also problematic, considering how easily shipowners can change the flag of their vessels. These problems, nonetheless, concerns generally all maritime legislation and are hard to overcome. The enforcement of the draft Convention is, ultimately, better constructed to the circumstances that apply to end-of-life vessels, than the rules on jurisdiction in the waste movement regime, which are based on the notion of “exporting state” and the belief that waste is produced at one location.

Moreover, the study has argued that the allocation of responsibility in the draft Convention is insufficient and does not incorporate the polluter pays principle. At present, the draft Convention puts the burden of responsibility for the scrapping of vessels on the shipbreaking state and the port state. Arguably, these stakeholders are not in the best position to carry the bulk of the costs that implementing the rules of the draft Convention will demand. What is more, the shipowners, which are the ones profiting from the vessels during their lifetimes, can escape bearing the pollution costs that the scrapping of the vessels causes. These costs are instead placed on the shipbreaking states, which are in most cases developing states. This is contradictory to the polluter pays principle and does not represent a fair allocation of the costs for the scrapping of vessels.

Finally, it remains to be seen how the dissimilarities between the draft Convention and the existing waste movement regime will be solved. This especially concerns the pre-cleaning of vessels, which as has been show is currently a requirement explicitly stated in the EU Regulation on shipments of waste. Although being a valid requirement for the protection of the environment, the pre-cleaning of vessels before scrapping has to be deemed impossible under the current circumstances. The European Commission appears, however, not to be prepared to change the EU Regulation. Nevertheless, having two regulations applicable to vessels destined for scrapping is not a satisfactory solution and could possibly lead to out-flagging of vessels from the EU.

7.2 Reflections

It will still most likely take several years before the draft Convention enters into force even if the Convention is adopted as planned in May 2009. A fast and widespread ratification would be necessary to meet the increased need of scrapping that is expected in the following years. In order to facilitate a fast entry into force of the Convention, it may therefore be necessary to compromise on the issues that are currently debated and to make some of the requirements in the Convention softer. This regards, for instance, the pre-cleaning of vessels, at what moment the inventory of hazardous wastes must be established and when surveys must be undertaken.

It appears that restricting vessels from being scrapped in Asia is neither a practical nor a sustainable solution. What is instead needed is to improve the standards of the scrapping facilities in the current shipbreaking states. As has been showed, the draft Convention does contain provision that focus on improving the scrapping procedures. This is a positive development, but what is moreover needed is financial support to the shipbreaking states in order for them to improve the standards. Otherwise there is a risk that the provisions of the draft Convention will not have a real impact. In view of this, the shipping industry should be demanded to bear a share of the costs that improving the facilities would require. This would

more fairly allocate the costs of pollution which are connected to the scrapping of vessels, and also implement the polluter pays principle into the present shipbreaking practices.

List of References

Literature

- Birnie, Patricia, Boyle, Alan, *International Law and the Environment*, 2. ed., Oxford University Press, Oxford, 2002.
- Buenker, Michael, *The New Frontier: E-waste*, (2007), Vol. 37/1, *Environmental Policy and Law*, pp. 22-24.
- Churchill, Robin R., Lowe, Vaughan A., *The Law of the Sea*, 3. ed., Manchester University Press, Manchester, 1999.
- Crowhurst, Georgina, Davidson, Simone, *The New Regulation on Waste Shipments: Green List Controls*, (2007), August/September, *European Environmental Law Review*, pp. 223-226.
- Dodds, David, *Breaking Up is Hard to Do: Environmental Effects of Shipwrecking and Possible Solutions Under India's Environmental Regime*, (2007), Vol. 20, *Pacific McGeorge Global Business & Development Law Journal*, pp. 207-236.
- Evans, Malcolm (ed.), *International Law*, 2. ed., Oxford University Press, Oxford, 2006.
- Gorton, Lars, *Problem i samband med försäljning av fartyg till upphuggning*, (1994), No. 208, *MARIUS*, pp. 287-304.
- Gorton, Lars, Hillenius, Patrick, Ihre, Rolf, Sandevärn, Arne, *Shipbroking and Chartering Practice*, 6 ed., LLP, London, 2004.
- Kellow, Aynsley, Zito, Anthony, *Steering through Complexity: EU Environmental Regulation in the International Context*, (2002), Vol. 50, *Political Studies*, pp. 43-60.
- Krueger, Jonathan, *International Trade and the Basel Convention*, Earthscan Publications, London, 1999.
- Kummer, Katharina, *International Management of Hazardous Wastes: The Basel Convention and Related Legal Rules*, Oxford University Press, New York, 1999.
- Langlet, David, *Prior Informed Consent and Hazardous Trade – Regulating trade in hazardous goods at the intersection of sovereignty, free trade and environmental protection*, Stockholm University, Stockholm, 2007.
- Louka, Elli, *International Environmental Law – Fairness, Effectiveness, and World Order*, Cambridge University Press, New York, 2007.
- Mikelis, Nikos, *Developments and Issues on Recycling of Ships*, presented at The East Asian Seas Congress, 2006.
- Available at: <www.imo.org> Last visited: 2 May 2008.

Mikelis, Nikos, *A Statistical Overview of Ship Recycling*, presented at International Symposium on Maritime Safety, Security & Environmental Protection, Athens, September 2007.

Available at: <www.imo.org> Last visited: 2 May 2008.

Morrison, Fred, Muffett, Carroll, *Hazardous Waste*, in Morrison, Fred, Wolfrum, Rüdiger (eds.), *International, Regional and National Environmental Law*, Kluwer Law International, The Hague, 2000.

O’Keeffe, Jacqui, Hall, Denton, *Transfrontier Shipments of Waste: A Bureaucrat’s Dream?*, (2000), January, *European Environmental Law Review*, pp.10-16.

O’Neill, Kate, *Waste Trading among Rich Nations – Building a New Theory of Environmental Regulation*, MIT Press, Cambridge, 2000.

O’Neill, Kate, *Globalization and Hazardous Waste Management: From Brown to Green?*, in Vogel, David, Kagan, Robert (eds.), *Dynamics of Regulatory Change: How Globalization Affects National Regulatory Policies*, Vol. 1, University of California Press, Berkley, 2002.

Paul, Katie, *Exporting Responsibility - Shipbreaking in South Asia - International Trade in Hazardous Waste*, (2004), Vol. 34/2, *Environmental Policy and Law*, pp. 73-78.

Pellow, David, *Resisting Global Toxics: Transnational Movement for Environmental Justice*, MIT Press, Cambridge, 2007.

Rummel-Bulska, Iwona, *The Basel Convention and the UN Convention on the Law of the Sea*, in Ringbom, Henrik (ed.), *Competing Norms in the Law of Marine Environmental Protection*, International Environmental Law & Policy Series, Kluwer Law International, London, 1997.

Sadeleer, Nicolas de, *Environmental Principles: from Political Slogans to Legal Rules*, Oxford University Press, New York, 2002.

Sawyer, John, *Shipbreaking and the North-South Debate: Economic Development or Environmental and Labor Catastrophe?*, (2002), Vol. 20, *Penn State International Law Review*, pp. 535-562.

Scotford, Eloise, *Trash or Treasure: Policy Tensions in EC Waste Regulation*, (2007), Vol. 19, *Journal of Environmental Law*, pp. 367-388.

Tromans, Stephen, *EC Waste Law – A Complete Mess?*, (2001), Vol. 13/2, *Journal of Environmental Law*, pp. 133-156.

Ulfstein, Geir, *Legal Aspects of Scrapping Vessels*, revised 26 November 2001.

Available at: <www.basel.int/meetings/lwg/lwg4/predocs/Lwg4_04.pdf>

Last visited: 2 May 2008.

Wall, Darren, Tsimplis, Michael, *Selling Ships for Scrap*, (2004), *Lloyd’s Maritime and Commercial Law Quarterly*, pp. 254-264.

European Union

Regulations, Directives and Decisions

Commission Decision 2000/532/EC of 3 May 2000 [2000] OJ L 226.

Council Directive 91/689/EEC of 12 December 1991 on hazardous waste [1991] OJ L 377/20.

Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste [2006] OJ L 114/9.

Council Regulation (EEC) No 259/93/ of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [1993] OJ L 30/1.

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste [2006] OJ L 190/1.

Regulation (EC) No 1418/2007 of 29 November 2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to Regulation (EC) No 1013/2006 of the European Parliament and of the Council to certain countries to which the OECD Decision on the control of transboundary movements of wastes does not apply [2007] OJ L 316/6.

Communications and Studies

COM(2006) 275, *Green Paper: Towards a Future Maritime Policy for the Union*, 7 June 2006.

COM(2007) 269, *Green Paper on Better Ship Dismantling*, 22 May 2007.

Oil Tanker Phase Out and the Ship Scrapping Industry – study on the implications of the accelerated phase out scheme of single hull tankers, COWI study for the European Commission Directorate General Energy and Transport, June, 2004. Cited as: COWI/TREN 2004. Available at: <<http://ec.europa.eu/environment/waste/ships/index.htm>>
Last visited: 2 May 2008.

Ship Dismantling and Pre-cleaning of Ships, COWI study for the European Commission Directorate General Environment, June, 2007. Cited as: COWI/ENV 2007.
Available at: <<http://ec.europa.eu/environment/waste/ships/index.htm>>
Last visited: 2 May 2008.

Guidelines on Scrapping of Vessels

Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships adopted by the Sixth Meeting of the Conference of Parties to the Basel Convention on 13 December 2002.

Available at: <www.basel.int/ships/techguid.html> Last visited: 2 May 2008.

Industry Code of Practice on Ship Recycling, developed by ICS and other industry organisations, August 2001.

Available at: <www.marisec.org/recycling> Last visited: 2 May 2008.

Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey, approved by the 289th session of the International Labour Organisation's Governing Body in March 2004.

Available at: <www.ilo.org/public/english/protection/safework/sectors/shipbrk/index.htm>

Last visited: 2 May 2008.

IMO Guidelines on Ship Recycling adopted on 5 December 2003, Resolution A.962(23).

Available at:

<www.imo.org/includes/blastDataOnly.asp/data_id%3D11404/ResShiprecycling962.pdf>

Last visited: 2 May 2008.

International Conventions

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989, Basel, 22 March 1989, (1989) 28 ILM 657.

International Convention for the Prevention of Pollution from Ships, 1973, ("MARPOL").

United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, (1982) 21 ILM 1261.

Rio Declaration on Environment and Development, Rio de Janeiro, June 13 1992, (1992) 31 ILM 876.

Basel Convention

Decisions and Protocols

Conference Decision II/12.

Available at: <www.basel.int/meetings/cop/cop1-4/cop2repe.pdf>

Last visited: 2 May 2008.

Conference Decision III/1.

Available at: <www.basel.int/meetings/cop/cop1-4/cop3decisions_e.pdf>

Last visited: 2 May 2008.

Conference Decision VII/26.

Available at: <www.basel.int/meetings/cop/cop7/docs/33eRep.pdf>

Last visited: 2 May 2008.

Conference Decision VIII/11.

Available at: <www.basel.int/ships/commentsOEWG6/oweg6.html>

Last visited: 2 May 2008.

Conference Decision VIII/30.

Available at: <www.basel.int/meetings/cop/cop8/docs/16eREISSUED.pdf>

Last visited: 2 May 2008.

Basel Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement of Hazardous Wastes and Their Disposal, December 10, 1999.

Submissions

UNEP/CHW.7/INF/10. *The Application of the Basel Convention to Ships Destined for Recycling*, Position Paper.

Available at: <www.basel.int/meetings/cop/cop7/docs/i10e.pdf> Last visited: 2 May 2008.

UNEP/CHW/OEWG/3/INF/5. *Legal aspects of the full and partial dismantling of ships Comments provided by Parties and others*.

Available at: <www.basel.int/meetings/oewg/oewg3/i05e.pdf> Last visited: 2 May 2008.

UNEP/CHW.8/INF/39 *Development of the draft International Convention for the Safe and Environmentally Sound Recycling of Ships – Assessment in the Context of Decision VII/26*.

Available at: <www.basel.int/meetings/cop/cop8/docs/i39e.pdf>

Last visited: 2 May 2008.

Comments received pursuant to OEWG6 decisions. Submissions of India and the EU.

Available at: <www.basel.int/ships/commentsOEWG6/oewg6.html>

Last visited: 2 May 2008

IMO

IMO Resolution A.981(24) *New Legally-Binding Instrument on Ship Recycling*.

Draft International Convention for the Safe and Environmentally Sound Recycling of Ships, MEPC 56/WP.5.

OECD

OECD Decision C(92)39/Final on the Control of the Transboundary Movements of Wastes Destined for Recovery Operations, April 6, 1992.

OECD Decision C(2001)107/Final concerning the Revision of Decision C(92)39/Final on the Control of the Transboundary Movements of Wastes Destined for Recovery Operations, May 21, 2002.

Cases

National Courts

“*Clemenceau*”.

Decision du Conseil d’Etat, Case no. 288801 – 288811, Date of Judgement 15 February 2006.

“*Sandrien*”

Council of State, Case no. 200105168/2, Date of Judgement 19 June 2002.

“*Otapan*”

Council of State, Case no. 200606331/1, Date of Judgement 21 February 2007.

The judgements of these cases are available via:

<www.basel.int/ships/relevcaselaw.html> Last visited: 2 May 2008.

European Court of Justice

Joined Cases C-418/97 and 419/97, *Arco Chemie Nederland Ltd v Minister Van Volkshuisvesting* [2000] ECR I-4475.

Case C-9/00 *Palin Granit Oy* [2002] ECR I-3533.

Material from NGOs

Shipbreaking and the Legal Obligations Under the Basel Convention, submitted by Basel Action Network and Greenpeace International, 10 January 2002.

Available at: <www.ban.org/Library/ShipbreakingLegal%20Final.pdf>

Last visited: 2 May 2008.

Global Statement 2007 of Shipping Vessels Sent to Demolition, issued by Robin des Bois, 2008.

Available at: <www.robindesbois.org/english/sea/global-shipbreaking-2007.html>

Last visited: 2 May 2008.

BAN Comments and Proposals for Resolving Basel Convention Shipbreaking Issues, Basel Action Network, 6 January 2004.

Available at: <www.ban.org/Library/BAN_Submission_shipbreaking_jan04.pdf>

Last visited: 2 May 2008.

Critique of Draft I.M.O. "International Convention for Safe and Environmentally Sound Recycling of Ships", prepared by the Basel Action Network on behalf of the Global NGO Platform on Shipbreaking, 15 March 2006.

Available at: <http://ban.org/Library/IMO_Draft_Convention_CritiqueFINAL.pdf>

Last visited: 2 May 2008.

Press Releases

Press Release, “*SYKE issued transport ban on M/S C Express*”.

Available at: <www.environment.fi/default.asp?contentid=241785&lan=en>

Last visited: 2 May 2008.

Press Release, “*New plans for using M/S C Express*”.

Available at: <www.environment.fi/default.asp?contentid=244006&lan=en>

Last visited: 2 May 2008.

Press Release, “*Draft I.M.O. Treaty Called ‘Shockingly Inadequate’ in Addressing Global Ship Scrap Crisis*”, 16 March 2006.

Available at: <www.greenpeaceweb.org/shipbreak/prfinal160306.pdf>

Last visited: 2 May 2008.

Others

Answer of Environmental Minister Jan-Erik Enestam to a written question posted by MP Astrid Thors, KK 785/2004, 17 November 2004.

Available at: <www.eduskunta.fi/faktatmp/utatmp/akxtmp/kk_785_2004_p.shtml>

Last visited: 2 May 2008.

“DEMOLISHCON” BIMCO Standard Contract for the sale of Vessels for Demolition and Recycling.

Available at:

<www.bimco.org/Corporate%20Area/Documents/Document_samples/Sundry_Other_Forms/DEMOLISHCON.aspx> Last visited: 2 May 2008.

Dismantling Defunct Ships in the UK, Environmental, Food and Rural Affairs Committee, Eighteenth Report of Session 2003-2004.

Available at:

<www.publications.parliament.uk/pa/cm200304/cmselect/cmenvfru/834/834.pdf>

Last visited: 2 May 2008.

Englund, Will, Cohen, Gary, *The Shipbreakers*, Baltimore Sun, December, 1997.

Interim Measures for Shipowners Intending to Sell Ships for Recycling Developed by the Industry Working Group on Ship Recycling

Available at: <www.marisec.org/recycling> Last visited: 2 May 2008.

Langewiesche, William, *The Shipbreakers*, (2000), Vol. 286/2, The Atlantic Monthly.

Luther, Mathias, *Stålpriserna ruinerar Alang*, Svensk Sjöfarts Tidning, No. 11, June, 2005.

Note on Shipbreaking, issued by India’s Supreme Court Monitoring Committee on Hazardous Wastes.

Available at: <www.scmc.info/special_issues/note_on_shipbreaking.htm>

Last visited: 15 February 2008.

Shipbreaking in OECD, Working Report No. 18, 2003, Danish Environmental Protection Agency. Available at:
<www2.mst.dk/common/Udgivramme/Frame.asp?http://www2.mst.dk/Udgiv/publications/2003/87-7972-588-0/html/default_eng.htm> Last visited: 14 May 2008.

Skrotning av svenskägda fartyg - Historik och prognos för framtida skrotningsbehov, Revised December 2006, Lloyd's Register – Fairplay.

UK Ship Recycling Strategy, February, 2007.
Available at: <www.defra.gov.uk/environment/waste/strategy/ship.htm>
Last visited: 2 May 2008.

Visit to Alang/Sosiya Shipbreaking Yards, report from India's Supreme Court Monitoring Committee on Hazardous Wastes, March, 2005.
Available at: <www.scmc.info/special_issues> Last visited: 15 February 2008.

Workshop Report: Ship Recycling – the draft IMO Convention on the safe and environmentally sound recycling of ships, Lisbon, 24 April 2007.
Available at: <www.emsa.eu.int/Docs/workshops/ws20070424.pdf>
Last visited: 2 May 2008.