

Ship Recycling

- An analysis of the inconsistencies within the legislation regarding ship recycling.

Kandidatnummer: 332

Leveringsfrist: 25.04.2007

Veileder: Arne Falkanger Thorsen, BW Gas

Semester for levering: V-07

Til sammen 17 957 ord

Preface



Photographer: Brendan Corr

The ship blows its sharp whistle for the last time. It puts its engine on full speed ahead for the land, wailing and groaning as it reaches a speed that it would never have dared risk at sea. Its steel hull scrapes the sand, reaching into the earth where it came from. Then it stops, grounded on the end of its final charge, its final journey....

- Sebastiao Salgado

Photographer, UNICEF Special Representative

I would like to direct a special thank to my advisor Arne Falkanger Thorsen

Oslo, April 25th 2007

Katrine Berge Enger

List of Abbreviations:

BIMCO	The Baltic and International Maritime Council
DNV	Det Norske Veritas
DWT	Dead Weight Tonnage
EEA	European Economic Agreement
ESM	Environmental Sound Management
EU	European Union
ICS	International Chamber of Shipping
ILO	International Labour Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LNG	Liquefied Natural Gas
MARPOL	Maritime Pollution Convention
MEPC	Marine Environment Protection Committee
NGO	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
SSB	Statistisk Sentral Byrå
UNCTAD	United Nations Conference on Trade and Development

Table of Content:

1 INTRODUCTION.....	5
1.1 PRESENTATION OF THE SUBJECT MATTER	5
1.2 RESEARCH QUESTION.....	5
1.3 LIMITATIONS OF THE ASSESSMENT	5
2 BACKGROUND	7
2.1 NORWAY AS A SHIPPING NATION	7
2.2 SHIP RECYCLING.....	7
2.2.1 <i>Alternatives</i>	8
2.2.2 <i>Recycling locations</i>	9
2.3 THE RECYCLING PROCESS.....	9
2.4 THE PROCESS OF SELLING SHIPS AS SCRAP.....	11
3 LEGISLATION.....	13
3.1 GENERAL.....	13
3.2 NATIONAL LEGISLATION	13
3.2.1 <i>The Norwegian Pollution Control Act</i>	13
3.2.2 <i>The Norwegian Ships Security Act</i>	14
3.3 THE 1989 BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL	15
3.3.1 <i>History</i>	15
3.3.2 <i>The scope of the Basel Convention</i>	16
3.3.3 <i>National fulfilment of the Basel Convention</i>	18
3.4 IMO GUIDELINES ON SHIP RECYCLING	19
3.4.1 <i>History</i> :.....	19
3.4.2 <i>The scope of the IMO Guidelines on Ship Recycling</i> :.....	19
4 ANALYSIS OF THE INCONSISTENCIES AND THE EQUALITIES BETWEEN IMO GUIDELINES ON SHIP RECYCLING AND THE BASEL CONVENTION.....	22
4.1 PRESENTATION OF THE CURRENT LEGAL SITUATION:	22
4.2 “HAZARDOUS WASTE” IN THE BASEL CONVENTION AND “HAZARDOUS MATERIALS” IN THE IMO GUIDELINES	22
4.2.1 <i>Definition of “waste” in the Basel Convention</i>	23
4.2.2 <i>Comparison of the wording on “Hazardous waste” in the Basel Convention and “Hazardous material” in the IMO Guidelines</i>	27
4.3 INFORMATION CONSENT SYSTEMS	28
4.4 REQUIREMENT FOR “GREEN PASSPORTS”.....	29
4.5 REQUIREMENT FOR “SHIP RECYCLING PLAN”	30
4.6 DISTRIBUTION OF RESPONSIBILITY FOR THE DIFFERENT PARTIES WITHIN THE RECYCLING PROCESS.....	32
4.6.1 <i>Responsibilities of ship owners</i>	32
4.6.2 <i>Responsibilities of the flag states</i>	33
4.6.3 <i>Responsibilities of the recycling states</i>	34

4.7 ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTE/MATERIAL AT THE RECYCLING FACILITIES	35
4.8 “BEST PRACTICE”/ “GOOD PRACTICE” FOR A SHIP RECYCLING FACILITY	36
4.9 CONCLUSION ON THE COMPARISON BASEL CONVENTION AND THE IMO GUIDELINES	39
5 DRAFT INTERNATIONAL CONVENTION FOR THE SAFE AND ENVIRONMENTALLY SOUND RECYCLING OF SHIPS	40
5.1 INTRODUCTION.....	40
5.2 ANALYSIS OF THE INCONSISTENCIES AND THE EQUALITIES OF THE KEY ELEMENTS OF THE “DRAFT INTERNATIONAL CONVENTION FOR THE SAFE AND ENVIRONMENTALLY SOUND RECYCLING OF SHIPS” AND THE BASEL CONVENTION	41
5.2.1 <i>Form and layout</i>	41
5.2.2 <i>“Hazardous waste” in the Basel Convention and “Hazardous Materials” in the “Draft Convention”</i>	42
5.2.3 <i>Banned import</i>	43
5.2.4 <i>Environmentally sound management of waste/material at the ship recycling facilities</i>	43
5.2.5 <i>Obligation to ensure no import/export of hazardous waste/material when reason to believe that it will not be managed in an environmental sound manner</i>	45
5.2.6 <i>Obligation to minimize the generation of hazardous waste and materials</i>	45
5.2.7 <i>Decontaminate ships in the OECD countries</i>	46
5.2.8 <i>Trading with non-members</i>	47
5.2.9 <i>Illegal traffic</i>	48
5.3 CONCLUSION ON THE DISCUSSION ON THE “DRAFT CONVENTION”	48
6 VIEW ON A HYPOTHETICAL DEVELOPMENT	49
6.1 THE CURRENT SITUATION	49
6.2 HYPOTHETICAL CHANGES WITHIN THE RECYCLING SYSTEM.....	49
7 CONCLUDING REMARKS AND RECOMMENDATIONS.....	51
8 REFERENCES.....	53

1 Introduction

1.1 Presentation of the subject matter

The object of this paper is to discuss both the current legislation on ship recycling and the proposal on the new legal instrument on ship recycling. It is generally the Norwegian view on the different regulations that will be addressed. The assessment will be divided into three major parts. The first part is an introduction on ship recycling in general, and a brief passage of the legal instruments subject to this assessment. The second part is an analysis of the inconsistencies and the similarities between IMO¹ Guidelines on Ship recycling and the Basel Convention. These are currently two of the most important legal frameworks on ship recycling. I will look into some of the major inconsistencies, but also emphasise the equalities that exist between the two documents. The third part relates to the proposal on a new legally binding instrument developed by IMO, concluding with an analysis of the inconsistencies and the equalities of the key elements of this “Draft International Convention for the Safe and Environmentally Sound Recycling of Ships” and the Basel Convention.

1.2 Research Question

The research question in this assessment is:

In the context of the current legislation on ship recycling, and with the development of a new legally binding instrument, how are the different legal frameworks consistent with each other?

1.3 Limitations of the assessment

My focus will be on three concrete regulations, respectively the IMO Guidelines, the Basel Convention and the proposal for a new convention being developed by IMO. In an attempt to provide a comprehensive analysis, it was not possible to mention every relevant article or section in these legal frameworks. It is also important to acknowledge that there are more regulations on ship recycling than the ones approached in this assessment, such as the

¹ The International Maritime Organization, hereinafter simply referred to as IMO. This organization will be described below.

ICS “Industry Code of Practice on Ship Recycling” and the EU regulations that are applicable² on this matter. The national regulations applicable on ship recycling will be analysed, though not in detail.

I have chosen some areas and articles that I found to be particularly interesting and looked into these in detail. Those subjects of greater importance are emphasised in the text.

² Council Regulation (EEC) No. 259/93 of 1 February 1993 on the supervision and control of shipment of waste within, into and out of the European community.

2 Background

2.1 Norway as a shipping nation

Norway is one of the world's largest shipping nations, being number 3 on the list of beneficial ownership countries³ and number 11 of the largest shipping flags⁴. Shipping is the second largest industry in the country after oil, and there are about 300 shipping companies in Norway⁵. The Norwegian fleet contains around 1700 ships, totalling 49.8 million dead-weight tons⁶. In 2005, 863 Norwegian ships over 1000 gross tonnes were registered in Norway and 670 Norwegian ships were registered outside Norway⁷. The Norwegian classification industry classifies over 17 % of the world fleet⁸. The shipping industry is a vital element of the Norwegian economy, and more than 90.000 Norwegians are directly involved in this industry. The total value creation in 2004 in the maritime industry was calculated to be around 63 billion NOK⁹, representing 7,8% of the total value creations in all of Norway's industries.

It should be noted that not everyone finds the shipping business to be an important branch in the Norwegian industry. In 2006 Professor Guttorm Schjeldrup was the leader of a committee that presented a proposal to change the tax system for shipping companies because they found that the shipping industry did not represent an important part of the Norwegian industry. The majority of the committee shared a view that such business could be bought from other nations, and instead use the labour and capital in more profitable ways in Norway.

2.2 Ship recycling

The world fleet plays a crucial role in the world economy, with over 90% of world trade carried by the international shipping industry. The modern import and export of goods that we see today would not be possible without the shipping industry. There are currently around 50.000 merchant ships trading internationally, transporting all types of cargo around the world. The useful trading life of a merchant ship varies from 20 to 40 years or

³ UNCTAD

⁴ Lloyd's Register Fairplay

⁵ Norges Rederiforbund

⁶ Norges Rederiforbund

⁷ ssb

⁸ Norges Rederiforbund

⁹ Marine Norway

more. An oil tanker tends to have a relatively short life span of around 20 years. A passenger ship or an LNG tanker can operate for more than 40 years. Ships, unlike many other types of equipment, often have a significant value as scrap when ending their service. This opportunity to gain a last profit is one the ship owner has calculated on. A ship is normally sold due to age, but there might also be other reasons why the ship owner wants to sell his ship as scrap. If the state of the market is low, ship owners will have to weigh the advantages of keeping the ship, in terms of future income, against the advantages of selling the ship as scrap. The scrap price is an important factor in this calculation. If the total cost of having the ship is greater than the expected income the owner would want to get rid of the vessel, and place the capital elsewhere. The total number of ships being sold as scrap each year is around 3500- 4000, and about 600-700 of these are large vessels¹⁰. Any vessel larger than 45 000 DWT is considered a large vessel. This means that approximately 3.5-4% of the world fleet is sold for recycling each year.

One of the reasons why some ship-breaking nations and independent organizations want the legal situation to be cleared out as soon as possible, is the new regulation concerning the phase-out schedule¹¹ for single-hull tankers that entered into force on the 5th of April 2005. This phase-out schedule is a resolution made by IMO, and the aim is that all single hull oil tankers are to be phased out by year 2010. The effect of this is that the number of vessels to be scrapped will increase in the years to come, with a major peak in year 2010.

2.2.1 Alternatives

There are not many alternatives on what to do with a ship when she has reached the end of her operating life. Scuttling of the vessels has been proposed as a possibility, although the environmental cost of this method is highly uncertain. Legislation concerning dumping, such as “The London Dumping Convention”¹², will prohibit any attempt in this matter. Another alternative would be to store the unwanted vessels. This is already a reality for many of the American and British military vessels waiting to be recycled, and the effect on the environment is disastrous.

Environmentally, ship recycling is currently the best way of disposing a ship. A ship is mainly made out of steel, and this steel is reusable. Almost every part of the hull,

¹⁰ Greenpeace, Shipbreaking Site

¹¹ Adopted in December 2003 as amendments to Annex I of the MARPOL Convention

¹² “Convention on the prevention of marine pollution by dumping of waste and other matter” se art 3) (ii)

machinery, fittings and furniture can be re-used; nearly 95 % of a ship can be recycled¹³. This means that recycling of ships must be considered the “green way” to handle ships that have reached the end of their operating lives, given that the recycling method is done in a proper manner. The problems concerning the industry are related to the way the recycling is done, the occupational wealth and health, safety at the workplace, and the environment. Recycling of ships the way it is done today is not a lasting solution. Changes have to be done.

2.2.2 Recycling locations

The recycling industry was originally a European industry, where most of the ships were scrapped in Italy and Spain. The US was also considered a big scrapping nation, but in the mid- 80s the industry moved to the Far East, especially to Taiwan. The industry has now settled primarily in four countries: India, Bangladesh, Pakistan and China. These four countries deal with an estimated 85 % of the world recycling of ships today¹⁴. Turkey is also a big recycling nation. The reason for this geographical shift in the industry is that ship recycling is no longer favourable for most developed countries. Recycling of ships is a labour- intensive industry and all of today’s recycling countries have a large amount of cheap labour available. In addition the current recycling nations are in need of the materials and the machinery from these ships. The communities around the ship-breaking areas are dependent on this economic activity. Various parts from the vessel such as; the generators are used in the local electricity production, the steel is recycled and used in construction works, and fittings from the ships are sold at special stores. The estimated numbers of people working directly in the ship-breaking industry are over 100.000¹⁵.

2.3 The recycling process

Ships being sold for recycling are either brought to a dock, or driven onto a beach where the ship later will be taken apart. This last method, called “beaching”, is the most frequently applied method. It was initiated by an accidental beaching when a vessel was driven ashore on the Chittagong beach in Bangladesh in 1965¹⁶. This method became popular, mainly because it was no longer necessary to provide for sufficient depth of

¹³ BIMCO

¹⁴ Wijnolst, Nico

¹⁵ Greenpeace, Shipbreaking Site

¹⁶ International Labour Organization, SafeWork

harbours or huge cranes. When the tide is high, the vessel is driven at full speed towards the beach, and once the water recedes the workers will move in to empty out the ship. Everything on board is taken from the ship and on to land, where it is sold to different buyers. Lockers, furnishings, piping and electrical cables are among the valuable things to find onboard a ship. The cables are brought to the beach where the plastic covering the wires is burned and the wires are sold. After finishing emptying the vessel, the actual dismantling process can begin. This is a manual process, making it extremely labour-intensive. The workers will remove the superstructure and topside components, and progressively cut the main and lower decks from bow to stern. As the material is removed from the ship, it will become lighter, and it will be progressively pulled ashore¹⁷. Then the hull structure is taken apart with the use of hand held shears and gas torches¹⁸. The larger parts of the ship that are cut loose are lifted away by cranes and put on the ground where they are cut into smaller pieces before being shipped away to different foundries and smelters.

The recycling process in China however, does not include beaching of the vessels. The vessels are docked and taken apart at the dock. The ship will eventually sink and then be taken to shore. The method is known to be a more environmental way of recycling ships.

A ship can also be recycled in a dry dock, meaning that the ship is brought out of water before being taken apart. Since the ship is not in the water it can be separated into sections immediately, and the recycling process takes less time. The sections are moved to areas where they can be cut into smaller pieces and taken away to foundries, smelters or other buyers. There are proper containers and storage for any toxic material and the handling of such is done in an environmental friendly manner. The working conditions are known to be secure and healthy; the workers have proper equipment, and wear special suits designed for the recycling process. A dry dock shipyard was established in Eemshaven in the Netherlands, in 2005, and the company is planning on using this project as a pilot for further reproduction of 30-40 new shipyards¹⁹. This method is expected to be expensive; the actual price is not yet released to the public.

¹⁷ GlobalSecurity, shipbreaking

¹⁸ GlobalSecurity, shipbreaking

¹⁹ Ecodock.com

One of the main problems at the current ship recycling yards is the fact that the ships are not properly cleaned by way of removing hazardous and toxic contents and material before beaching, which means the workers at the shipyards have to deal with hazardous materials. There may be explosive or inflammable gasses onboard the ship, and the materials within the ship components often contain hazardous chemicals and toxic substances. Toxic materials that are forbidden to use in building of vessels today are frequently present in outranged vessels ready for recycling. The most common toxic materials and components are, among others, asbestos, polychlorinated biphenyls (PBC) and Tributyl Tin (TBT)²⁰. The workers are often unskilled, and without the proper equipment like gloves, helmets, and boots, this results in an unhealthy and unsafe work environment, and releases of such substances to the environment.

2.4 The process of selling ships as scrap

There are numerous different ways in which the sale of ships for recycling may be undertaken²¹. There are, however, two main routes for selling ships for demolition.

One route is to sell the ship straight to the recycling facility. This procedure is not often done; many ship owners only go through with such a sale once in a decade. Therefore, their practice and experience in selling ships for recycling are often poor. On the other hand, the recycling facilities buy ships for recycling on a weekly, or even daily basis. The financial aspect of selling a ship directly to the recycling facility is also noteworthy. The situation might be that payment for the ship cannot be made until the ship has been delivered, due to local regulations or regulations within the recycling facility. A financial institution can then issue a letter of credit on behalf of the facility. This is an assurance for the ship owner, although these documents often are confidential and may contain lower credits than expected. In a worst case, the ship owner will deliver the ship to the recycling facility without getting proper payment.

The positive side of selling the vessel directly to the facility is that the ship owner has full control in the process of selecting a proper recycling facility. The owners have the ability to verify that the chosen facility appears to do every part of the dismantling and recycling in a preferred manner. This way the owners can ensure that the vessel is not sold to a

²⁰ Greenpeace and The Basel Action Network

²¹ All of this section has a reference to MEPC 55th session; and "Normal Recycling Procedures" submitted by ICS

facility known to treat their employees badly. It has to be mentioned that the appearance of a recycling facility might differ from the reality.

Another route is to sell the ship through a “cash buyer”. This means selling the ship to a company or a person that buys ships for recycling, and later sells them to recycling facilities. Although the “cash buyer” then becomes the owner of the ship, the contract will normally lay the responsibility to transport the ship to the recycling facility on the original ship owner as a technical management only. For the original ship owner this is a great way to make sure the vessel is actually delivered for recycling, and the “cash buyer” needs the crew to manoeuvre the vessel on to the beach or in to the dock. The “cash buyer” may be located in the same area as a recycling facility and will therefore be well aware of local legislations. Some of these regulations may not apply for domestic trade. The knowledge of the scrap market and the local market is of great value in this context.

This alternative provides for a better and more secure financial situation for the ship owner, because he will get the payment from the “cash buyer” without any concerns towards the later resale. The price is consequently lower than what it would be if the ship were sold directly to the recycling facility.

Selling the ship to a “cash buyer” is by far the most common way to sell an end- of- life vessel. There may however, be some moral issues of concern when selling a ship through a third person. When a ship is sold to a “cash buyer” the ship owner has no control over the later resale, and consequently no possibility to make sure the ship is sold to a facility that will handle the ship within the required legislations. However, some shipping companies do detailed and complicated background checks on the “cash buyer” in order to make sure the one reselling the vessel will do this in a respectful manner.

In the process of selling and buying vessels for scrap both the seller and the buyer may be represented by brokers. A broker has good knowledge about the market and the prices. The brokers will try to get both parties to agree on terms within the contract and the price of the vessel, and are purely a link between the buyer and the seller, and will resume absolutely no liability with regard to the sale itself or any environmental or other consequences thereof.

3 Legislation

3.1 General

The current international legislative framework regulating ship recycling alone is the IMO Guidelines for Ship recycling and the “Industry Code of Practice on Ship Recycling”²².

The last mentioned code will not be part of the assessment. “The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal”²³ is also applicable in this matter. The Norwegian view on this convention will be described below. I find it worth mentioning that there are international regulations on the workers rights. The International Labour Organization²⁴ adopted in 2004; “Safety and health in ship breaking: Guidelines for Asian countries and Turkey”. These guidelines shall assist the ship-breakers and the authorities in the recycling facilities to prevent and protect the workers from possible hazards. Furthermore, safety operations for the machinery and the tools, as well as proper training and competent leaders issues, are described in the ILO guidelines.

IMO is currently developing a new legally binding instrument on ship recycling.

I will go into the Basel Convention, the IMO Guidelines, and the proposal for a new IMO convention in further detail below.

3.2 National legislation

3.2.1 The Norwegian Pollution Control Act

The legislation on national level is primarily the Norwegian Pollution Control Act of 1981²⁵. The object of the law is “*to protect the outdoor environment against pollution and to reduce existing pollution, to reduce the quantity of waste and to promote better waste management*”. The act applies to “*sources of pollution and waste and sources of waste*”.

²² These codes were established under the co-ordination of ICS in February 1999. Several organizations from the shipping industry participated in making these codes.

²³ Hereinafter referred to simply as the Basel Convention

²⁴ Hereinafter referred to simply as ILO

²⁵ Lov om vern mot forurensning og om avfall, 13 mars. Nr. 6 1981 Norwegian Pollution Control Act

*within the realm*²⁶” or “*to any threat of pollution within the realm*”²⁷. Both §§ 28 and 37 are applicable in this matter. The first section of § 28 holds that “*No person may empty, leave, store or transport waste in such a way that it is unsightly or may cause damage or nuisance to the environment. The provision of the first sentence also applies to wrecked ships and aircraft and other similar large objects*”. The regulation in § 37 concern orders to clear up waste, or to pay for it to be cleared up.

The last part of § 28 first section leaves no doubt that “*wrecked ships*” are subject to the prohibition. The question, however, is when a ship is considered a wreck. The chosen terminology, “*wrecked ships*”, may create some difficulties in terms of how to interpret the regulation. A ship may be considered a wreck when it can no longer be rescued because of damages caused by an accident or if it is too old to be operating. The question is then if a ship on its very last journey to the recycling facility is to be considered a wreck. The vessel is sailing by its own power, and there is not necessarily something the matter with her. The interpretation of wrecked ships is not discussed in the preparatory works²⁸. The uncertainties regarding the meaning of a wrecked ship, and the rather narrow scope of the act makes this law incomplete in the fight against pollution from ship recycling. As mentioned, the law is only applicable if the pollution in question is affecting the realm, or the source of the pollution is within the realm. As this assessment will show, ship recycling does take place elsewhere than in Norway.

3.2.2 The Norwegian Ships Security Act

A new act on ship security was adopted in February 2007²⁹. Within this act is a regulation regarding ships that are taken out of service permanently³⁰, which states that these ships shall be handled in a secure manner, to prevent possible pollution. The Ministry of trade and industry can adopt administrative regulations on how to proceed in order to comply with the regulations, and hereunder give regulations on removal of hazardous waste on board the vessel, and regulations on duty to report. No such directions are currently adopted. This law is applicable for both Norwegian³¹ and foreign ships³². However, the

²⁶ Norwegian Pollution Control Act § 3.1 section no 1

²⁷ Norwegian Pollution Control Act § 3.1 section no.2

²⁸ Ot.prp. No 11 (1979-80)

²⁹ lov-2007-02-26-9, skipssikkerhetsloven, (The Norwegian Ship Security Act- unofficial translation)

³⁰ Skipssikkerhetsloven §36

³¹ The Norwegian Maritime Code §1: ”A ship shall be regarded as a Norwegian ship when it has not been entered in the register of ships of another states and is owned by 1) a Norwegian national;

rulings only apply for foreign ships within the Norwegian territorial water, the contiguous zone and the continental shelf, and only as long as the regulations are in compliance with international rules³³. The regulations apply for Norwegian ships no matter where they are³⁴. The consequence of this is that Norwegian law and administrative regulations are enforceable on Norwegian ships ready for recycling no matter where in the world they are.

The act enters into force on the 1 July this year³⁵, and it will be interesting to see the real effect of the law. It is hardly applicable if the ship is sold to a third person, and later sold to a recycling facility, and there might be interpretation problems on the meaning of “secure manner” (not an official translation). It is possible that the opportunity for the Minister of trade and industry to give administrative regulations where detailed procedures can be drafted may ease possible interpretation problems.

3.3 The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

3.3.1 History

In 1986 the cargo vessel *Khian Sea*, loaded with 13 000 tons of toxic ash from a factory in Philadelphia, USA, went on a journey lasting more than a year, trying to find a place to dump its cargo. About a quarter of all the toxic ash was eventually dumped on a beach in Haiti, after import permission was given. This permission was soon withdrawn, based on the real nature of the dumped cargo. The government of Haiti ordered *Khian Sea* to remove the ash. The vessel had already changed both name and owner, and the new owners refused to remove any of the ash. The rest of the toxic ash was apparently dumped in the Indian Ocean³⁶. Another incident occurred in Nigeria in 1988, when people working on scrapping a ship got seriously ill during the removal of the vessels cargo. These two incidents caught the global community’s attention on the waste production, and the disposal of the waste in

2) a shipping partnership or other company whose members have unlimited liability for its obligations, provided that Norwegian nationals are co-owners for at least six tenths; 3) other companies, provided they are registered in Norway”.

³² Skipssikkerhetsloven § 2

³³ Skipssikkerhetsloven § 3.2

³⁴ Skipssikkerhetsloven § 3.1

³⁵ Skipssikkerhetsloven § 72

³⁶ In 1993 two men were convicted by the US court to imprisonment for the dumping on the high seas. The city of Philadelphia refused to take any responsibility when the cleaning of the beach on Haiti began in 1998, but paid after negotiations US \$ 50 000 of the total bill of \$ 372 000.

developing countries. An issue relating this matter was the lack of international legislation. The Basel Convention was concluded in 1989, but did not enter into force until 1992.

3.3.2 The scope of the Basel Convention

The Basel Convention is a legally binding legislation, to which 169 parties are bound. Norway ratified the convention 02.07 1990, and has also accepted later amendments to the convention.

The convention is not made specifically for recycling of ships. It applies generally for waste³⁷, which is subject to transboundary movement³⁸, as long as the waste is defined as hazardous waste or other waste, either by the convention or domestic legislation. The convention is based on several basic principles. A general foundation of the Basel Convention is that hazardous wastes should be disposed of locally and that international transport and dumping of such wastes should be minimized³⁹ and regulated. Another important principle of the Basel Convention is the prior information consent⁴⁰ (PIC), which refers to the duty of the state of export⁴¹ to make a declaration of the hazardous substances being exported. The state of import⁴² has to reply to this notification by either accepting with or without conditions, requesting additional information, or denying the import⁴³.

Transport of hazardous waste is unwanted, and one of the aims in the Basel Convention is to minimize this inadequate activity as much as possible. In order to achieve this, the convention prohibited export of hazardous waste or other waste to non-parties, and import of such waste from a non-party⁴⁴. The parties of the convention are given the opportunity to prohibit import of hazardous waste for disposal, as long as the other parties are properly informed⁴⁵. This right is strengthened by the obligation to prohibit “*export of hazardous waste and other waste to the Parties which have prohibited the import of such waste..*”⁴⁶.

³⁷ Waste is defined in the convention Art. 2 (1) as “substance or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law.”

³⁸ The definition of transboundary movement includes movements from one states national jurisdiction to another states jurisdiction, or movements through an area not under any states national jurisdiction.

³⁹ Basel convention art 4.2 (a)

⁴⁰ Basel convention art 6

⁴¹ Basel convention art 2 (10)

⁴² Basel convention art 2 (11)

⁴³ Basel convention art 6 (2)

⁴⁴ Basel convention art 4 (5)

⁴⁵ Basel convention art 4 (1) a

⁴⁶ Basel convention art 4 (1) b

To make sure waste does not get imported to a party not handling the waste in a proper way, the convention imposes an obligation of “due diligence” on all parties. All parties are required to prohibit import if there is “*reason to believe that the waste in question will not be managed in an environmentally sound manner*”⁴⁷. This rule obliges even when the parties have notified the import, and proper acceptance has been given. The principle of “environmentally sound manner” is one of the main principles on which the Basel Convention is founded, and it applies in a numerous different aspects throughout the convention. The convention is seeking to ensure that throughout all the steps of its management, human health and the environment are protected from the potential adverse impact that wrong management of waste may have⁴⁸.

The “*Basel convention Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships 2003*”⁴⁹ was created to help ease the ship recycling process and to guide the parties to achieve the protection of human health and environment as required. These Guidelines is supplementary to the Basel Convention, and they are intended to provide guidance and information to countries that already have, or wish to establish recycling facilities. There is guidance on procedures, processes and practises that should be implemented to attain environmentally sound management at facilities for ship recycling⁵⁰. The technical guidelines are meant as extra information and recommendations, and they are not mandatory, and the states are therefore not legally obligated to follow the guidelines. However, it is expected that all of the members will act in accordance with the recommendations. Norway was one of three countries that took the lead in the preparation of these guidelines⁵¹.

An important amendment to the Basel Convention called *The Based Ban* came into the convention in 1995. The first draft noted the following: “*Parties agreed to an immediate ban on the export from OECD to non-OECD countries of hazardous wastes intended for final disposal. They also agreed to ban by 31 December 1997, the export of waste intended*

⁴⁷ Basel convention art 4 (2) g

⁴⁸ Basel convention art 2 (8)

⁴⁹ The technical guidelines were adopted at the twentieth session of the Technical Working Group in May 2002. “The Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships” will hereinafter be referred to simply as the Technical Guidelines.

⁵⁰ Technical Guidelines 1 Exclusive Summary under “The Guidelines” page 7

⁵¹ Note by the secretary in accordance with the Technical Guidelines.

*for recovery and recycling (decision II/12)*⁵². The final text has the same context; only the wording is different. This amendment is not incorporated in the convention text, and is therefore not legally binding. It is included in the convention as an amendment, and will enter into force when three-fourths of the parties have ratified it. Norway accepted the amendment in 1997, and 63 parties have currently ratified the Basel Ban. In order for the amendment to enter into force 113 parties have to accept it. The Basel Ban is part of the general principle; *the polluter shall pay*. This means that the generator of the pollution has to pay for the disposal of it, not just the actual costs of the disposal, but also the environmentally sound of the disposal

Failure to comply with the rules in the Basel Convention will be considered illegal traffic⁵³. Illegal traffic constitutes a criminal offence⁵⁴.

3.3.3 National fulfilment of the Basel Convention

The preamble of the Basel Convention affirms that every member state is responsible for the fulfilment of obligations to protect human health and the environment. The Norwegian implementation of the Basel Convention does not allow application directly on citizens of Norway, but in 2004 the Ministry of Environment adopted an administrative regulation on Recycling and Treatment of Waste⁵⁵, which was made as a follow-up to both the Basel Convention and an EEA agreement⁵⁶. The legislation that is relevant to the Basel Convention is the regulation that The Norwegian Pollution Control Authority must authorize any import or export of waste in order for the transaction to take place. Export of waste to a state not being a member of the Basel Convention demands for other conventions or agreements between the EEA and the non -member state⁵⁷.

The Norwegian interpretation of the Basel Convention will be addressed in detail below.

⁵² Decision II/12, 1995. There is in the final decision not made use of the distinction OECD/non-OECD countries, but there are a reference to ban hazardous waste export for final disposal and recycling from Annex VII countries (this are all the parties that also are members of the EU, OECD and Liechtenstein) to non-Annex VII countries (all other parties to the convention). The Basel Ban is sometimes referred to as the Ban.

⁵³ Basel convention art 9

⁵⁴ "The Parties consider that illegal traffic in hazardous wastes or other wastes is criminal" Basel convention art 4 (3). There is an obligation to each party to introduce the necessary national legislation to punish and prevent illegal traffic, Art 9 (5)

⁵⁵ Avfallsforskriften, FOR-2004-06-01-930

⁵⁶ Regulation 259/93

⁵⁷ Avfallsforskriften § 13-1

3.4 IMO Guidelines on Ship Recycling

3.4.1 History

The International Maritime Organisation is an Intergovernmental organization formed to coordinate the different governments on issues regarding international shipping. IMO was not seriously involved with ship recycling until the IMO Marine Environment Protection Committee (MEPC) had its forty-second session in 1998. At that time the committee agreed that they had a responsibility in ship recycling, and that they should play a major role in the future supervision in this matter. They started drafting recommendatory guidelines and the “Guidelines on Ship Recycling” were concluded in July 2003⁵⁸. The 165 member states were all requested to apply the guidelines immediately.

3.4.2 The scope of the IMO Guidelines on Ship Recycling

These guidelines are considered a step forward in the ship recycling business, and contain recommendations believed to be helpful in achieving the “*..need to reduce the environmental, occupational health and safety risks related to ship recycling and, at the same time, securing the smooth withdrawal of ships that have reached the end of their operating lives..*”⁵⁹.

One fundamental idea in these guidelines is the Green Passport. This is the name of an inventory of all the materials known to be potentially hazardous to the environment or human health used in the construction of the ship, its equipment or its system⁶⁰. The intention is that this document shall accompany the ship throughout its working life, and all the different owners shall progressively incorporate all changes of design or equipment done to the ship. The final owner will deliver the document with the ship to the recycling facility and thus identify all the potential hazardous materials on board in order to minimize any possible health and environmental issues that might arise during the recycling process. The responsibility of creating a Green Passport falls on either the shipbuilder or the ship owner, depending on whether the ship in question is a new or an existing ship⁶¹. The Green passport is verified by the classification societies, and there are

⁵⁸ The guidelines was adopted on the 5th of December 2003, at the twenty-third regular session of the Assembly by resolution A.962 (23)

⁵⁹ IMO Resolution A.962 (23), the assembly. This resolution will hereinafter be referred to simply as IMO Guidelines.

⁶⁰ IMO Guidelines section 5.1

⁶¹ IMO Guidelines section 5.5 .1) and .2)

annual verifications of the Green Passport to register every new change. Lloyd's Register and Det Norske Veritas (DNV) are examples of classification societies that do verifications of Green Passports. There are currently no official records on vessels carrying Green Passports.

Some of the problems during ship recycling are due to the design and construction of the ship. IMO Guidelines therefore encourage all shipbuilders and ship designers to use materials "*which can be recycled safely and in an environmental sound manner*"⁶² and "*minimizing the use of materials known to be potentially hazardous to health and the environment*"⁶³. These recommendations are also intended for manufactures of marine equipment,⁶⁴ and existing ships are encouraged to have onboard as little hazardous waste as possible⁶⁵.

A third foundation in the IMO Guidelines is prior preparations of ships for recycling. An important part of these preparations is the development of a recycling plan. The plan is primarily made by the recycling facility, but sometimes in consultation with the ship owner⁶⁶. The consequence of the recycling plan is that the recycling work begins before the ship is being delivered to the shipyard. The plan gives the ship owner some responsibility prior to delivery, such as encouraging the ship owner to empty out the fuel tanks as much as possible before delivering the ship⁶⁷. It is also considered necessary that a ship owner provides a "*gas-free certificate*" or "*hot work safe certificate*"⁶⁸. These are both clarifications, respectively declaring that the vessel is gas free, and that oil and explosives have been removed from the tanks so it will be safe to use tools creating heat when cutting the vessel apart. These assurances from the ship owner will help prevent possible explosions and injuries on the workers.

These guidelines are not mandatory, and there are no legal consequences if the specified standards in the recommendations are not maintained. However, organizations like

⁶² IMO Guidelines section 6.1.4 .1)

⁶³ IMO Guidelines section 6.1.4 .2)

⁶⁴ IMO Guidelines section 6. 2.2

⁶⁵ IMO Guidelines section 7.2.1

⁶⁶ IMO Guidelines section 8.3.2.2

⁶⁷ IMO Guidelines section 8.3.3.2 .3)

⁶⁸ IMO Guidelines section 8.3.4.1 .1)

Greenpeace may inform the media if the process is not carried out in compliance with the guidelines and in that way negative attention will be brought on the company.

Although the IMO guidelines and the Basel Convention regulate far more than I have discussed and clearly warrant much deeper analysis, the scope of the assignment does not permit me to do so at this time.

4 Analysis of the inconsistencies and the equalities between IMO Guidelines on Ship recycling and the Basel Convention

4.1 Presentation of the current legal situation:

The legal situation in Norway on ship recycling is rather complex. The Norwegian government have not announced an official view on the interpretation of the definition of waste. However, organizations like NorWatch and Greenpeace have interpreted governmental statements, and concluded that the government does not considered ships for recycling as waste⁶⁹. In addition to this, Norway does not appear as the state of export when applying the articles of the convention, which means that even if the ship in question is Norwegian the Norwegian owners will fall outside the scope of the convention. These subjects will be discussed in more detail below.

Even though the Norwegian view on the Basel Convention is undefined, the discussion of this assessment is still highly topical and there are several reasons for this. Norway might give an official interpretation of “waste” and decide that ships ready for recycling are considered waste. The EU community does find obsolete vessels as waste, and international organisations are lobbying to make the rest of the world follow this interpretation. The new Norwegian Ships Security Act has regulations that may lay down stricter responsibilities in the recycling process of Norwegian vessels. The vessels are to be handled in a secure manner to prevent pollution, and this applies to Norwegian ships no matter where they are.

4.2 “Hazardous waste” in the Basel Convention and “Hazardous materials” in the IMO Guidelines

The Basel convention does not contain one simple definition of “waste”. The whole of the first article is used as a reference to Annex I, and II in which the different types of wastes subject to the convention are described. In the convention the wastes are called “*Hazardous Waste*” and “*other waste*”. For the purpose of the convention waste is

⁶⁹ Norwatch, Newsletter no. 15, 1998

“substance or objects which are disposed or are intended to be disposed of or are required to be disposed of by the provision of national law”⁷⁰.

The IMO Guidelines does contain a definition of *“Hazardous material”⁷¹*, which is defined as *“ materials posing harm to human health or the environment identified in the IMDG Code, the Basel Convention, or other international authorities or instruments.”*

There are several legal problems concerned to the phrasing of these articles. A major concern is whether ships, under any circumstances can be considered waste under the Basel Convention. There is secondly a question of whether there are any possible problems due to the inconsistent choice of wording in the Basel Convention and the IMO Guidelines.

4.2.1 Definition of “waste” in the Basel Convention

In order to get into the comparison there will first be an analysis of the definition “waste” in the Basel Convention. The discussion of whether ships destined for recycling are within the definition of waste under the Basel Convention is an ongoing discussion. As mentioned earlier, the Basel convention was never drafted with ships in mind, and the wording of the text creates some difficulties when the articles are used on ships. The first issue relates to the timing of when a ship becomes waste. The definition of waste in the Basel Convention⁷² is referred to above. A ship is clearly an *“object”* in accordance with the definition. The real issue is that the definition refers to *“objects which are disposed or are intended to be disposed...”*. Disposal means any operation specified in Annex IV to the convention. These operations are divided into operations that do not lead into recycling and re-use, and operations that may lead to recycling and re-use. Ship recycling falls within the last category, and under the operation described in the Annex as *“Recycling/reclamation of metals and metal compounds”⁷³*.

The only phrasing in the text that might be an alternative is the option *“ are intended to be disposed..”⁷⁴*. Knowing that a ship is intended to be disposed does not answer the question of when the ship becomes waste. This opens yet another question, namely, when should a

⁷⁰ Basel Convention art 2 .1.)

⁷¹ IMO Guidelines section 3

⁷² Basel Convention art 2.1

⁷³ Basel Convention, Annex IV, part B, R4

⁷⁴ Basel Convention art 2.1

ship be considered “intended” to be disposed. “Intention” is a subjective quality and it must be determined whose intention to look for. This is not expressed in the convention. The decision to recycle a vessel is likely to be made by the owner of the vessel, and it is, therefore, his intention that should be examined. The owner of a ship is often a company, and there will in these cases be the company’s intention that is decisive. The way to establish “intention to scrap a ship” will be to prove that a decision to sell a ship to recycling has been made. This is not only difficult to prove, but in most cases also difficult to discover. The intention to scrap a ship, can however be exposed. The owner may have entered into a contract where the ship is sold for “recycling only”. In that case the vessel will, in accordance with the Basel Convention⁷⁵, be waste from the time the contract is legally binding for the parties. This scenario illustrates a rather uncomplicated situation, but the reality is often more complex. A recycling contract might be legally binding for the owner in March although the ship is not being delivered to the recycling facility until September, and the ship is to remain in service until the ship is being delivered.

The ship would then be in a position where, under other international law and domestic law it is considered a ship, and under the Basel Convention it is considered waste. The consequence of this is that a vessel may be considered both a ship and waste at the same time. This opens the situation for potential conflicts between conventions created for ships, and other conventions created to regulate waste management.

The ship owner might not have completed a recycling contract, but there may be other indications towards intention to recycle the ship. Preparatory steps before entering into a contract might have been taken, such as contacting a broker. This may be an indication, but it does not prove “intention to dispose”.

There might be situations in which someone can prove that a ship owner had the intention to dispose the ship, but the uncertainties surrounding makes the legal situation unbearable. Another question is whether or not it is correct to call a ship waste. A ship has a great value, even if it has come to a point where the vessel no longer can operate. The ship will be insured, it might have numerous people working onboard and it might carry cargo that

⁷⁵ Basel Convention art 2.1

is worth millions of dollars. These are all factors that might indicate that waste is not the proper word for a ship, even if it has come the end of its life.

Part of the argument from people not in favour of applying the Basel Convention to ships is that the legal framework of the convention does not fit the nature of ships and maritime transport. They point out that the convention seems to be directed towards hazardous waste that can be placed into boxes and be stored until export⁷⁶.

In order to be within the scope of the convention, there has to be a transboundary movement. This means “*any movement of hazardous waste or other waste from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.*”⁷⁷.

This regulation opens further legal discussions. As illustrated above, the legal status on ships within the Basel Convention is already rather complicated, and several legal issues occur as a result of the criteria of transboundary movement. If the ship owner decides that the vessel shall be sold for recycling while the vessel is on the high sea⁷⁸, and therefore takes her straight to the recycling state, the transboundary movement is missing. This means the transaction will not be within the control regime of the Basel Convention. One might suspect that the ship owner had the whole transaction figured out before entering the high sea but the problem, of course, is to prove this.

The legal situation regarding these problems has been under discussion for a long time, and the problems have caused strong reactions within several non- governmental organizations. In order to improve the situation, the EU Commissioner for the Environment; Stavros Dimas gave a statement⁷⁹ in which he said: “*From a point of view of EU legislation, let me be clear that ships destined to be dismantled or recycled are considered as waste. In this respect, the European Commission has a direct role to play, by making sure that these ships are treated, transferred and recycled according to our waste legislation.*”

⁷⁶ BIMCO; “Why recycling legislation should be left to the IMO”

⁷⁷ Basel Convention art 2.3

⁷⁸ Definition on the high seas; under article 13(1) (a) of the 1958 Geneva Convention on the High Seas: all parts of the sea that are not included in the territorial waters or the internal waters of a state.

⁷⁹ The statement was made at an Open Hearing at the European Parliament in Brussels on 25 April 2006.

Similarly, end-of-life-ships that contain hazardous substances are to be treated according to the rules that apply to the treatment of hazardous waste, especially the rules concerning their movements. We consider that the transfer of ships containing hazardous substances from the EU to countries outside the OECD constitutes export of hazardous waste. This is prohibited under both the Basel Convention and the European Union's Waste Shipment Regulation. The Commission will not hesitate to ensure that this prohibition is properly applied and enforced in the Member States.”

This statement is not legally binding to the member states, but will, as soft law, have some legal effect. The reaction to this statement is most likely that member states of the EU will apply the Basel Convention to ships, and this might settle some of the legal tension. However it should be noted that legal experts around the world find it hard to reconcile with the statement, based on the legal facts surrounding the situation⁸⁰.

Norway has not taken an official view on whether ships for recycling are considered waste or not. In 1998, Ellen Hambro, from the Waste and Recycling Department at the Ministry of Environment, made a statement in which she claimed “ *a ship which is still running (in a sense that it still has all the necessary certificates for legal sailing) is not considered waste according to Norwegian regulations even if the shipping company intends to condemn the ship (i.e. send it to India for scrapping)*”⁸¹. The scope of this statement is limited to Norwegian regulations, but Professor Geir Ulfstein wrote a paper in 1999 on behalf of the Norwegian Ministry of Environment on the legal aspects of scrapping of vessels⁸². The paper does not contain a definite conclusion on the definition issue, but indicates a negative attitude towards accepting ships as waste. The former Minister of the Environment, Børge Brende, claimed in a letter to Greenpeace that the international legislation on export of hazardous waste was not intended to deal with ship-breaking, and therefore do not cover this industry⁸³. Even though no official statement is given, it is the view that Norway does not consider ships as waste. The consequence is namely that the Regulation on Recycling and Waste Treatment (avfallsforskriften), where authorization from the Norwegian Pollution Control Authority is required, will not be applicable because the ships in question are not considered waste.

⁸⁰ BIMCO seems to disagree with this statement

⁸¹ NorWatch Newsletter no.15, 1998

⁸² Legal Aspect of Scrapping of Vessels, Geir Ulstein

⁸³ Letter to Greenpeace, dated 13/03-02

4.2.2 Comparison of the wording on “Hazardous waste” in the Basel Convention and “Hazardous material” in the IMO Guidelines

The definition of “Hazardous Material” in the IMO Guidelines⁸⁴ refers to the Basel Convention, but the definitions point out “materials” identified in the IMDG and the Basel Convention. The Basel Convention does not define “Hazardous materials”; the terminology is limited to “Hazardous waste”⁸⁵. This avoidance of the term “Waste” in the IMO Guidelines might entail that the definition in the Basel Convention falls outside the scope of the Guidelines. This view can be supported by the IMO Guidelines definition of the operating life of a ship. The operating life of a ship is defined as “*the time when it is capable of performing its current functions*”⁸⁶, and this definition may indicate that a view within the IMO is that an operating ship cannot become waste. A ship is, as earlier mentioned, driven upon shore under its own powers and is therefore an operating ship until it lies on the beach being taken apart.

The IMO Guidelines were adopted years after the Basel Convention had entered into force, and it would have been easy to create a text that was synchronized to the existing convention. The fact that the guidelines were given a different wording and the clear indication of what a operating ship is, opens for speculation whether the IMO Guidelines were ever intended to be in perfect harmony with the Basel Convention. It seems clear the IMO Guidelines did not wish to utilize the word “waste” and therefore adopted a similar word. The current situation in which different words are utilized makes interpretation of the IMO Guidelines problematic. The choice of words, and the definition of an “Operating Ship” clearly indicate that “Hazardous Materials” in the IMO Guidelines are something different than “Hazardous Waste” in the Basel Convention. The fact that the IMO Guidelines contain a reference to the Basel Convention point to a different direction, namely that the lists of “Hazardous Waste” in the Basel Convention is meant to be part of the definition in the IMO guidelines. These inconsistencies are creating uncertainty on how to interpret the two documents with regard to each other.

The view that ships for recycling are considered waste is a supposition in the following section of this assessment.

⁸⁴ IMO Guidelines section 3

⁸⁵ Basel Convention art 1 and 2.1

⁸⁶ IMO Guidelines section 3

4.3 Information consent systems

The IMO Guidelines note that the ship owner, after selecting a recycling yard, should inform the competent authority of the recycling state⁸⁷. The guidelines contain in addition a reference to the information system in the Basel Convention⁸⁸. A ship owner is defined as “*the person or persons or company registered as the owner of the ship or, in the absence of registration, the person or persons or company owning the ship*”⁸⁹. The article further states “*This term also includes those who have ownership of the ship for a limited period pending its sale to a recycling facility.*” That means that if the vessel is sold to a cash buyer, he will be the owner of the ship, and the one responsible to inform the recycling state. The information procedure in the Basel Convention involves both the exporting state and the recycling state, and is significantly different from the procedure provided in the IMO Guidelines. The information system in the Basel Convention is called a “*prior informed consent*” system⁹⁰. The way the system works is that the state of export⁹¹ notifies the state of import⁹² about the export of the waste, and before any export takes place the state of import shall respond to the notifier⁹³. The response may be consent to the prior notification, and the import can take place. There is also a possibility that the state of import will not consent to the transaction, or that they will demand that certain conditions be fulfilled in order for the movement to be allowed.

The state of export is defined as “*a Party from which a transboundary movement of hazardous waste or other waste is planned to be initiated or is initiated*”⁹⁴. The Norwegian government and shipping industry interpret this so that the state of export is the state where the physical movement of the ship for recycling starts. This state must give information to the recycling state as required. That means that even if the shipping company owning the vessel is placed in Norway, and they decide the ship shall no longer be operative, Norway will not be the state of export. In order for Norway to be the export state the journey to the recycling state would have to start in Norway. As long as the decision to recycle the ship is

⁸⁷ IMO Guidelines section 8.1.8

⁸⁸ IMO Guidelines section 9.5.2.2

⁸⁹ IMO Guidelines section 3

⁹⁰ Basel Convention art 6

⁹¹ Basel Convention art 2.10

⁹² Basel Convention art 2.11

⁹³ Basel Convention art 6.1 and 6.2

⁹⁴ Basel Convention art 2.10

taken when the ship is outside the Norwegian realm, Norway will not be the state of export within the Basel Convention.

The inconsistency in the information systems within the Basel Convention and the IMO Guidelines may cause an issue due to which system to choose and follow. It appears that IMO was aware of the possible inconsistency. This statement is based on the fact that IMO included a recommendation referring to the procedure within the Basel Convention⁹⁵ in its guidelines. This reference seems more informative than recommendatory. First of all, is it surprising that IMO chose to adopt a different system in their guidelines especially since the “prior informed consent” system in the Basel Convention is well known. Secondly, is it hard to use another system than the one within the guidelines, this because the reference to the Basel Convention does not clear the legal situation for the reason that there is no information on how to relate to the “prior informed consent” system. The consequence is that within the IMO Guidelines there is a contradiction regarding the two information systems, and it seems more natural to follow the system within the guidelines itself rather than an uncertain reference to the Basel Convention.

The inconsistencies on this particular matter might create problems in terms of which system to relate to. It is likely that the “prior informed consent” system within the Basel Convention, in which communication among all the parties continues throughout the whole recycling process, is more time consuming than the system in the IMO Guidelines, in which the competent authority in the recycling state is the only party that needs to be informed. The fact is it would probably take months⁹⁶ to get all the approvals needed to go through with the transportation of the waste according to the Basel Convention. It might be an easier solution to fall back on the information system in the IMO Guidelines.

4.4 Requirement for “Green Passports”

One of the recommendations in the IMO Guidelines is the “Green Passport”⁹⁷. This documentation of the potentially hazardous material used either in construction of the vessel or onboard as cargo, has been considered one of the greatest achievements in the IMO Guidelines.

⁹⁵ IMO Guidelines section 9.5.2.2

⁹⁶ Information from BIMCO

⁹⁷ IMO Guidelines section 5

The Technical Guidelines contain recommendations on how the process of ship recycling should be⁹⁸ carried out. One of the recommendations regarding this preparation is to provide a list of “*Inventory of onboard hazardous/polluting wastes*”⁹⁹. The inventory shall ideally be carried out prior to the arrival at the recycling facility, and no later than upon arrival. The content of the inventory shall be a list of hazardous and polluting waste, this meaning a survey of all the waste on board, the amount being carried, and where the waste is located onboard the ship.

There are no distinctive differences between the two sets of guidelines, although the survey within the Technical Guidelines does not include the materials used in the construction of the ship itself. Only the waste carried onboard the ship is mentioned within those guidelines. The major concern regarding this matter is that none of the guidelines are mandatory.

4.5 Requirement for “Ship recycling plan”

Ship recycling plan is recommended in section 8.3.2 in the IMO Guidelines. The purpose of such a plan is to prepare the ship for the upcoming recycling. The main responsibility in preparing the ships lies with the ship recycling facility¹⁰⁰, but IMO recommends that the owner of the ship actively participate in making the plan¹⁰¹. The preparation process begins before the ship arrives at the recycling facilities¹⁰², and in that time prior to the delivery of the ship, the co-operation between the ship owner and the recycling facility is crucial. One of the main aims is to prepare the ship for recycling so that “*a facility should be capable of recycling the whole ship in a responsible way*”¹⁰³, and, more importantly, to “*ensure that wastes potentially contributing to pollution of the environment or potential hazard to worker health and safety, are properly identified and handled*”¹⁰⁴. The IMO Guidelines contains a list of items that should be considered by the ship owner in co-operation with the recycling facility¹⁰⁵ prior to the actual recycling.

⁹⁸ Technical Guidelines section 4

⁹⁹ Technical Guidelines section 4.1.1

¹⁰⁰ IMO Guidelines section 8.3.1.3

¹⁰¹ IMO Guidelines section 8.3.2.2

¹⁰² IMO Guidelines section 8.3.2.1

¹⁰³ IMO Guidelines section 8.3.1.1

¹⁰⁴ IMO Guidelines section 8.3.2.3

¹⁰⁵ IMO Guidelines section 8.3.3.2

Another aspect of the recycling plan is to provide for a “*gas-free certificate*” or “*hot work safe certificate*”¹⁰⁶.

The Technical Guidelines contain some recommendations similar to the ones in the IMO Guidelines. There are several instructions on how to clear the ship of all residual materials¹⁰⁷. For instance, cleaning of tanks, bunkers, and fuel tanks should be done so that the “*ship is presented for dismantling in a clean and safe condition*”. The process of cleaning out the vessels should be done prior to the arrival at the recycling facility, but the Technical Guidelines leaves open the possibility to proceed with the cleaning at the recycling facility. This represents a more moderate procedure in comparison to the IMO Guidelines, where it is made clear that the ship should be prepared prior to the recycling, and that the safety of the ship is considered prior to the delivery¹⁰⁸. Even though none of these guidelines are mandatory, an inconsistency of when to clean out the ships will be a source of problems. Evasion of the recommendations on how to prepare the vessel prior to the delivery is easier if one feels that the Technical Guidelines supports an opportunity to prepare the ship at the facility. One of the main aims behind the ship recycling plan in the IMO Guidelines is to protect the people working at the recycling facilities¹⁰⁹. The wording of the Technical Guidelines is rather unfortunate in this matter, because it leaves open for a discussion how to proceed in the preparation of the vessel.

The Technical Guidelines do recommend that a “*Safe for hot work*” certificate be provided prior to any torch cutting¹¹⁰; this is similar to the guidance that IMO provides. The main difference is that IMO points out that the certifications should be done by the ship owner, while the Technical Guidelines are meant as guidance to the countries where the recycling facilities are located. That means there might be a disagreement in relation to the distributing of responsibility in this matter.

¹⁰⁶ IMO Guidelines section 8.3.4.1.1, and above under section 3.4.2

¹⁰⁷ Technical Guidelines section 4.1.2

¹⁰⁸ IMO Guidelines section 8.3.2.2

¹⁰⁹ IMO Guidelines section 8.3.2.3

¹¹⁰ Technical Guidelines section 4.2.1 “*Precautions*”

4.6 Distribution of responsibility for the different parties within the recycling process

4.6.1 Responsibilities of ship owners

The IMO Guidelines¹¹¹ note that the ship owner should consider the working practices and facilities in the ship recycling facilities in the following matters: the ability of the yard to safely handle hazardous materials and dispose of them properly. He should also consider that there is provision of appropriate personal protective equipment, that the yard maintains and monitors ships so that “gas free”- and “fit for hot work” certificates are maintained, and that there are training programs for the workers. In addition to these obligations, the IMO recommends the ship owner arrange for removal and disposal of waste if, after investigation, it turns out that the selected recycling facility does not have the ability to manage the waste in a manner consistent with international and national law¹¹².

The Basel Convention and the Technical Guidelines do not indicate any clear responsibility for the ship owner. The Technical Guidelines are meant to provide guidance to countries that either have or wish to establish recycling facilities for ships, and do not address any particular tasks of the owner of the ship. The Basel Convention, on the other hand, contains regulations that may establish certain responsibility for the ship owners. With respect to the Basel Convention, there is clarification between when a ship is carrying waste and the ship itself shall be recycled. In both the first and the latter category the state of export will be the one to give proper notice to the import state¹¹³. The distinction is necessary because, the ship owner will be responsible not to send the ship to a recycling facility if there is a *“reason to believe that the waste in question will not be managed in an environmental sound matter..”*¹¹⁴.

The responsibilities of the ship owner are clearly more defined in the IMO Guidelines. A relevant question however, is to ask why this issue is not mentioned in the Technical Guidelines. These guidelines are made as a supplement to the Basel Convention, and could easily have added a chapter on the status of the ship owners, even if the main purpose of the guidelines is to guide the recycling facilities.

¹¹¹ IMO Guidelines section 8.1.3

¹¹² IMO Guidelines section 8.1.4

¹¹³ Basel Convention art 6.1

¹¹⁴ Basel Convention art 4.2 (e)

The issue in this relation is that ship owners do not have a legally binding instrument pointing out the responsibilities they are obligated to take on. They do have some guidance within the Basel Convention, and rather good recommendations within the IMO Guidelines, but they are not consistent with each other. One factor that will influence how ship owners deal with their responsibilities is, of course, the cost of these responsibilities. The possibility of getting away without any extra expenses can be tempting when interpreting different sources of law, which is why it is extremely important to have consistent and distinctive regulations regarding this particular matter.

In this regard it is important to identify the actual ship owner. If the vessel is sold to a cash buyer, he will be the owner of the vessel and the one with the responsibilities.

4.6.2 Responsibilities of the flag states

The IMO Guidelines note that the flag state is responsible for the operations throughout the life of the ship, including its final voyage, as long as the ship is operational¹¹⁵. It is a responsibility to ensure that ships comply with the applicable conventions. This means the flag state is responsible until the recycling process has actually begun. The ship is operational until the very end, because it beaches for demolition under its own power. The flag state is also responsible for establishment of criteria to make sure the ship is properly prepared and ready for recycling¹¹⁶.

The Flag state is not given any particular responsibilities in the Basel Convention or in the Technical Guidelines. The Basel Convention, however, is based on the principle that the producer of the waste retains responsibilities throughout the recycling process, a principle often referred to as “the polluter shall pay”. This principle is described in the conventions preamble; “*Convinced that hazardous waste and other waste should, as far as is compatible with environmentally sound and efficient management, be disposed of in the State where they were generated*”¹¹⁷. The question is therefore whether the flag state or the ship owner is the one generating the waste. Assuming that the ship itself is considered waste, (note the earlier discussion and supposition on this), the ship owner will be

¹¹⁵ IMO Guidelines section 9.2

¹¹⁶ IMO Guidelines section 9.2.1

¹¹⁷ Basel Convention preamble section 8

considered the one generating the waste, and consequently the one responsible throughout the recycling process, including the last voyage.

This means there is an inconsistency in this matter between the IMO Guidelines and the Basel Convention. The two documents have left two different stakeholders responsible for operations throughout the life of a ship, included the last voyage. The flag state is responsible for the ship to comply with applicable conventions, if the ship does not obey these rules she might lose her right to sail under the flag of this state. The owner on the other hand have a similar responsibility to obey rules, but in addition a financial responsibility. There is therefore no conflict in this matter.

4.6.3 Responsibilities of the recycling states

The IMO Guidelines are quite clear on the recycling state responsibilities to enforce national and international legislation concerning “*workers safety, health and welfare, and the protection of the environment in the ship recycling industry...*” at the recycling facility¹¹⁸. The recycling state is also responsible for introducing the national legislation, and to lay down any conditions necessary in order for a ship to be accepted for recycling¹¹⁹. This last recommendation might be in conflict with another recommendation within the sets of these guidelines, namely the responsibility of the flag state¹²⁰. IMO recommends that the flag state should set its own “ready for recycling” criteria. This legal situation may create an unwanted dispute if the flag state and the recycling state have made incompatible or in other ways different criteria on how to prepare the ship for recycling. No flag states have ever set out their own “ready for recycling” criteria, so the conflict is highly theoretical¹²¹.

The Basel Convention gives the state of import¹²² a responsibility in responding to the notification received from the state of export¹²³, and hereunder a responsibility to request certain conditions be fulfilled in order to accept the import¹²⁴. The Technical Guidelines require the states to have some sort of reporting system in order to confirm compliance¹²⁵, but how to accomplish the reporting and the inspection will depend on national regulations.

¹¹⁸ IMO Guidelines section 9.4.1.1

¹¹⁹ IMO Guidelines section 9.4.1.2

¹²⁰ IMO Guidelines section 9.2.1

¹²¹ BW Gas

¹²² Basel Convention art 2.11

¹²³ Basel Convention art 2.10

¹²⁴ Basel Convention art 6.2

¹²⁵ Technical Guidelines section 6.3

The Technical Guidelines contain a recommended list¹²⁶ of all the issues that should be verified before the recycling process begins. It is emphasised that the responsibilities in the list “*may involve international agencies, national/regional and/or local authorities, as well as the industry themselves (shipping and dismantling industries)*”¹²⁷. The wording in the guidelines gives a strong indication that the recycling state should feel responsible for the list to be followed in a proper manner. The object of the list is preparation of the ship, the recycling facilities and handling of the waste.

There are no inconsistencies in the legislation regarding the responsibilities of the recycling states within the Basel Convention and the IMO Guidelines.

4.7 Environmentally Sound Management of hazardous waste/material at the recycling facilities

One of the main foundations in the Basel Convention is to provide environmentally sound management of hazardous waste. In applying this principle to transboundary movement, treatment and disposal of waste, the convention is seeking to ensure that throughout all the steps of waste managing, human health and the environment are protected from the potential adverse impacts that wrong treatment of waste may cause. The term in the convention is defined as; “*taking all practical steps to ensure that hazardous waste or other waste are managed in a manner which will protect human health and the environment against the adverse effects which may result from such waste*”¹²⁸. This principle is also emphasised elsewhere in the convention with a reference to the Technical Guidelines¹²⁹. In the Technical Guidelines an overview of how to dismantle ships in an environmentally sound manner¹³⁰ is laid out. In addition to this there are detailed recommendations on how to proceed in order to manage the waste properly¹³¹. The IMO Guidelines do not contain any detailed recommendations on how to achieve an environmentally sound management at a recycling facility, but IMO makes cross-references to the Technical Guidelines in this matter¹³². The fundamental principle on

¹²⁶ Technical Guidelines section 6.3, Table 10

¹²⁷ Technical Guidelines section 6.3, under-text Table 10

¹²⁸ Basel Convention art 2.8

¹²⁹ Basel Convention art 4.2 (b) and art 4.8

¹³⁰ Technical Guidelines, Executive summary, figure 1 “Overview of elements to consider for ESM of a ship dismantling facility”, page 9

¹³¹ Technical Guidelines section 3

¹³² IMO Guidelines 8.1.1

environmentally sound management at the recycling facility is also referred to when IMO defines the role of the Basel Convention¹³³.

There is no room in this assessment to look into all of the recommendations on how to achieve an environmentally sound management at a recycling facility. However, I do find it necessary to mention some of the major components in the Technical Guidelines, given the fact that IMO Guidelines reference these recommendations.

Environmentally sound management at a recycling facility has at least four major components under the Technical Guidelines. The first one is the development of an environmentally sound management policy¹³⁴. Secondly it is considered necessary to identify the objects undergoing recycling and other objects this process may involve¹³⁵. The third major component is the development and implementation of an Environmental Management Plan¹³⁶. The fourth component is development of a report and control system¹³⁷.

There are no inconsistency between the IMO Guidelines and the Basel Convention with its Technical Guidelines due to the fact that the legislation is the same.

4.8 “Best practice”/ “Good practice” for a ship recycling facility

IMO notes that compliance with the Guidelines would result in “best practices”¹³⁸ at the recycling facilities. Additionally, later in the guidelines, recommendations are made regarding the authorities for the recycling facilities, assuring that “*the handling and disposal of asbestos, oils and other hazardous substances, whether prior to the ship’s arrival at the recycling facilities, or subsequently, have been conducted in an acceptable manner*”¹³⁹. Although the definition of “*acceptable manner*” is missing, the proposal concerning “best practices” of the recycling facilities is intended as an overall aim for the guidelines. This leaves opens for consideration the possibility that the different wording in the two sections is unintended, rather than an attempt to make different statements. This

¹³³ IMO Guidelines 9.5.1

¹³⁴ Technical Guidelines section 3.1, “Applicability for the ship-recycling industry”, and section 7.1

¹³⁵ Technical Guidelines section 3.2, under-text to art 4.2 from the Basel Convention

¹³⁶ Technical Guidelines section 6.2, “Planning for Environmentally Sound Management”, and section 7.3

¹³⁷ Technical Guidelines section 6.3

¹³⁸ IMO Guidelines section 2.1

¹³⁹ IMO Guidelines section 9.4.4.2

means that if a recycling facility follows the guidelines will that constitute “best practice”, and “acceptable manner” in accordance with the IMO Guidelines.

The Technical Guidelines contains an entire section describing “good practice”¹⁴⁰ at the recycling facility. The guidance on this matter is a lot more detailed than the recommendations from IMO. The questions are therefore whether the different phrasing or the different lay out makes any legal inconsistency. The first issue is the use of terms, “best” in the IMO Guidelines versus “good” in the Technical Guidelines. “Best” implicates the best possible solution, while “Good” can implicate satisfying or approved. It can therefore seem that IMO provides stricter regulations on the practise for recycling than the Basel Convention.

The second question is whether the different lay out in the two sets of guidelines creates any issues. The Technical Guidelines has established a list of seven activities considered necessary steps in the process of achieving the desired recycling facilities¹⁴¹. The different approach chosen in the IMO Guidelines might create inconsistency between the two guidelines. Without going into every detail a brief look into the steps set out in the Technical Guidelines is necessary in order to see what the relation really is.

The first mentioned activity is to carry out an inventory of onboard hazardous/polluting wastes¹⁴². This activity must be considered consistent with the recommendations on preparing Green Passports in the IMO Guidelines¹⁴³.

The second activity set out in the Technical Guidelines is removal and cleaning of the ship prior to recycling¹⁴⁴. The IMO Guidelines recommend that the ship owner remove any waste the facility cannot manage¹⁴⁵. In addition to this, there are general recommendations for the ship owner regarding participation in the preparations of the vessel, including removal of hazardous waste¹⁴⁶.

¹⁴⁰ Technical Guidelines section 4

¹⁴¹ Technical Guidelines section 4.1 Table 6, Steps in the process of ship decommissioning for disposal

¹⁴² Technical Guidelines section 4.1.1

¹⁴³ IMO Guidelines section 5

¹⁴⁴ Technical Guidelines section 4.1.2

¹⁴⁵ IMO Guidelines section 8.1.4

¹⁴⁶ IMO Guidelines section 8.3.1.2 and 8.3.3.2

The third step in the process is securing the ship to assure adequate safe access¹⁴⁷. This activity is in conformity with the recommendation to provide for “gas-free” and “hot work safe” certifications in the IMO Guidelines¹⁴⁸. The fourth step regulates the removal of equipment. The equipment in question is mainly loose equipment and smaller parts of the ship like anchors, chains and propellers¹⁴⁹. There are no identical recommendations in the IMO Guidelines, nor is there any recommendations that can be interpreted to cover removal of loose equipment. This may, therefore, create an uncertain situation regarding whether or not one must remove such equipment. The removal of such equipment is to secure the workers safety in the later dismantling process.

The fifth step referred to in the Technical Guidelines is removal of hazardous/polluting substances¹⁵⁰. This is removal of waste prior to cutting the ship into smaller pieces. This step is mentioned in the IMO Guidelines, and the responsibility is laid up on the ship owner¹⁵¹. It is noteworthy to mention that this responsibility only covers removal of the waste the facility cannot handle. This indicates that the Technical Guidelines recommends a stricter regime than IMO. This opens the possibility of leaving more waste onboard the vessel prior to the actual cutting, if one is applying the principles from the IMO Guidelines, rather than applying the Technical Guidelines.

The sixth step is due to the actual dismantling of the vessel¹⁵². It must be done in a safe and practical way, and a progression plan should be drawn up. The IMO Guidelines, are operating with a similar plan, referred to as the “Recycling plan”¹⁵³, and this plan covers all of the recycling processes including the dismantling operation. The main purpose of this “recycling plan”¹⁵⁴ indicates that the plan shall secure the environment as well as workers’ health and safety. This is in conformity with the plan in the Technical Guidelines in which it states that a safe and practical cutting of the vessel is desirable.

¹⁴⁷ Technical Guidelines section 4.1.3

¹⁴⁸ IMO Guidelines section 8.3.4.1.1

¹⁴⁹ Technical Guidelines section 4.1.4

¹⁵⁰ Technical Guidelines section 4.1.5

¹⁵¹ IMO Guidelines section 8.3.1.2

¹⁵² Technical Guidelines section 4.1.6

¹⁵³ IMO Guidelines section 8.3.2

¹⁵⁴ IMO Guidelines section 8.3.2.3

The seventh and last step in the process concerns the storage, recycling and disposal of the material¹⁵⁵. The hazardous waste that occurs when the vessel is being taken apart must be stored and disposed of in accordance with laws and regulations. The IMO Guidelines do not contain any detailed recommendations regarding the management of waste after the dismantling process has started. However, the Guidelines point out that “*From the moment the recycling facility accepts the ownership of the ship for recycling, the responsibility for the proper handling of any waste generated lies with the facility.*”¹⁵⁶. Even though it is not emphasised in the IMO Guidelines that management of waste must be done in accordance with laws and regulations, it is reasonable to assume that in order to handle the waste properly this must be done in accordance with laws and regulations. The recommendations regarding handling of waste are therefore consistent with each other.

After comparison of the principle of “best practice” in the IMO guidelines and the “good practice” in the Technical Guidelines, it appears that most of the recommendations are consistent with one another. The differences and possible legal issues resulting there from are discussed above.

4.9 Conclusion on the comparison Basel Convention and the IMO Guidelines

The Basel Convention and the IMO Guidelines have several inconsistencies. The fact that several nations do find the Basel Convention to be applicable to ship recycling makes this situation rather unfortunate. The consequences of these inconsistencies are that the workers and the environment are suffering as a result of legal issues. Something must be done to sort out the legal situation regarding ship recycling.

¹⁵⁵ Technical Guidelines section 4.1.7

¹⁵⁶ IMO Guidelines section 9.4.3.4

5 Draft International Convention for the Safe and Environmentally Sound Recycling of Ships

5.1 Introduction

The current situation of the Basel Convention and the IMO Guideline not being consistent with each other, and the uncertainties on the Basle Convention applicability on ships for recycling caused IMO to acknowledge the need to develop a new, legally binding instrument to regulate ship recycling. The decision to start the development was made by IMO in July 2005¹⁵⁷, and they requested the organization's Maritime Environment Protection Committee (MEPC)¹⁵⁸ to create an appropriate draft. The draft of a new legally binding convention is called "*Draft International Convention for the Safe and Environmentally Sound Recycling of Ships*"¹⁵⁹ and is set to be ready for adoption in the biennium 2008-2009. This new instrument will regulate three main areas: 1) the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling, 2) the operation of ship recycling facilities in a safe and environmentally sound matter, and; 3) the establishment of an appropriate enforcement mechanism for ship recycling with certifications and reporting requirements. The preliminary version is currently under development, but first draft has already been released to the public. The general reception of the concept of a new legally binding instrument has been very good, but the "Draft Convention" itself has been met with mixed emotions. The Global NGO Platform on Shipbreaking¹⁶⁰ claims the "Draft Convention" is "*Shockingly Inadequate*"¹⁶¹.

It is based on the different opinions on the "Draft Convention" that I will compare this document with the existing legal framework, the Basel Convention, in order to elucidate the critics' point of view. There will not be room for an analysis of every possible detail that might be of interest, thus a comparison of only the key elements will be included.

¹⁵⁷ Resolution A.981 (24)

¹⁵⁸ Hereinafter simply referred to as MEPC

¹⁵⁹ Hereinafter simply referred to as "Draft Convention"

¹⁶⁰ The Global NGO Platform on Shipbreaking members are currently: Basel Action Network, Ban Asbest, Bellona Europe, European Federation of Transport and Environment, Greenpeace International, International Federation of Human Rights, IBAS, North Sea Foundation and The Other Media (India).

¹⁶¹ Paper called "DRAFT I.M.O TREATY CALLED "SHOCKINGLY INADEQUATE" in ADDRESSING GLOBAL SHIP SCRAP CRISIS

Since Norway is a member of IMO and has presented a proposal for the new convention, it will most likely feel obligated to ratify a new convention, and to follow the legislation this presents.

5.2 Analysis of the inconsistencies and the equalities of the key elements of the “Draft International Convention for the Safe and Environmentally Sound Recycling of Ships” and the Basel Convention

5.2.1 Form and layout

Both the Basel Convention and the “Draft Convention” are legally binding instruments. The difference however, is that the “Draft Convention” is structured in a rather unusual manner in which most of the provisions are found in annexes to the convention. The articles within the convention are more of a general art, thus the real substance of the convention is placed in the annexes. The chosen method is not the normal format of a convention. An annex is known to be “*add[ed] as an extra or subordinate part*”¹⁶². When all the regulations with substance of importance are placed in an annex, is it natural to look for reasons for why this type of method would be chosen. The only plausible reason seems to be to avoid the regulation within the “Draft Convention” regarding amendments¹⁶³. Because the amendments regulations are intended to be strict, any amendments must “*be adopted by two-thirds of the Parties present and voting in the Committee, on condition that at least one-third of the Parties shall be present at the time of voting*”¹⁶⁴. Having the requirements in an annex could make the amendment process easier, which has both positive and negative effect. The advantage is that the annexes can more easily be updated when needed. The impediment however, is that the legal statue of the text is uncertain because of the frequent changes that might occur.

Another issue of concern is the reference to the list of nine non -legal guidelines included in the “Draft Convention”¹⁶⁵. The main concern is related to why these guidelines are not made part of the conventions articles. These guidelines are not yet official because they are currently been worked on.

¹⁶² Concise Oxford English Dictionary, 11th edition, page 52

¹⁶³ “Draft Convention” art 18

¹⁶⁴ “Draft Convention” art 18 (c)

¹⁶⁵ “Draft Convention” annex 2

It is also noteworthy that the Basel Convention does not operate with any general exceptions, but there are exceptions made for waste that is radioactive, as long as the waste falls within the scope of other international conventions¹⁶⁶. Waste derived from normal operations of a ship is also excluded from the convention, but the same principle applies; the waste must be covered by another international instrument¹⁶⁷. The “Draft Convention” is operating with a general exception for “*any warships, naval auxiliary, or other ships owned or operated by a Party and used, for the time being, only on governmental non-commercial service*”¹⁶⁸. The result of this article is that the “Draft Convention”, with its requirements and guidelines, does not apply to military and government owned ships.

5.2.2 “Hazardous waste” in the Basel Convention and “Hazardous Materials” in the “Draft Convention”

This comparison is somewhat similar to the comparison between the Basel Convention and the IMO Guidelines¹⁶⁹, but there are some interesting factors that need to be emphasised here. There is little doubt about what is considered hazardous waste in the Basel Convention¹⁷⁰. The “Draft Convention” however, uses the same terminology as used in the IMO Guidelines and the current discussion on this matter is likely to continue. The peculiar side of this situation is the fact that the terminology in the IMO Guidelines has been criticized ever since the adoption of the guidelines. With IMO working on a new convention to clear out some of the existing legal inconsistencies, some of which is caused by the current choice of words, is it difficult to see how the situation will improve when the same interpretation problems will persist due to the same choice of words. IMO now has the opportunity to either make a regulation consistent with the Basel Convention, or to make a clear statement that the hazardous material in the new convention is different than the “waste” definition in the Basel Convention.

There is however, a proposal on guidance for the development of an inventory of hazardous material, which is required in regulation B-I-4 of the “Draft Convention”¹⁷¹. This document is called the “Single List” and contains all of the hazardous materials and goods that must be identified in the inventory. If the “Single List” is adopted the current

¹⁶⁶ Basel Convention art 1.3

¹⁶⁷ Basel Convention art 1.4

¹⁶⁸ “Draft Convention” art 3 (2)

¹⁶⁹ See above under section 4.2.2

¹⁷⁰ Basel Convention art 1 and 2. 1, and annexes i, ii, and iii, and above in the assessment under section 4.2.1

¹⁷¹ MEPC 55/3/1 submitted by Japan and Germany

situation will be improved, but the “Single List” is proposed to be part of the guidelines and will therefore not be mandatory.

The lack of a clear definition of “hazardous material” within the “Draft Convention” is a negative surprise, and the situation in that manner may remain status quo.

5.2.3 Banned import

The possibility to prohibit the import of hazardous waste is one of the fundamental principles in the Basel Convention¹⁷². This regulation places the responsibility on the exporter. It is prohibited to export hazardous waste to any states that have used their right to prohibit such import. There is nothing in the “Draft Convention” that gives the recycling state the right to ban import in order to make export prohibited. There are however, requirements in the annex of the “Draft Convention”¹⁷³ concerning which ships to recycle or not, but these are all directed towards the recycling facility.

The possibility for a recycling state to say no to import of hazardous waste is a good way to regulate this kind of import. The contents of the ships are not always a priority for the recycling facilities, for the reason that their income depends on the number of ships they recycle. The need of work overshadows any environmental problem the ships might cause. Although the recycling states probably have the necessary power to prohibit import of hazardous waste based on national regulations, a regulation similar to the one in the Basel Convention¹⁷⁴ emphasising that export of such waste is prohibited, is missing in the “Draft Convention”.

5.2.4 Environmentally sound management of waste/material at the ship recycling facilities

The Basel Convention has general regulations regarding environmentally sound management of hazardous waste¹⁷⁵ and the Technical Guidelines contains detailed regulations on how to achieve environmentally sound management in ship recycling

¹⁷² Basel Convention art 4.1 (b)

¹⁷³ “Draft Convention” annex- regulations for safe and environmentally sound recycling of ships section C-3 (2) (b), From hereinafter referred to as simply “Draft Convention” annex 1

¹⁷⁴ Basel Convention art 4.1 (b)

¹⁷⁵ Basel Convention art 4.2 (b) and art 4(8)

yards¹⁷⁶. There is a detailed list in these Guidelines of the specified challenges that occur when dismantling a ship¹⁷⁷, and a detailed description of how the dismantling process is carried out¹⁷⁸. Reference to section 4.7 in this assessment for details.

None of the articles within the “Draft convention” contains any regulations on how to achieve environmentally sound management at the ship recycling yards. However, there are, requirements regarding this matter in the Annex. All of section C contains requirements for ship recycling facilities. It is left to each state to establish legislations, regulations and standards for how to achieve ship recycling in a safe and environmentally sound manner¹⁷⁹. It is further required that “*Each Party shall establish a mechanism for authorizing ship recycling facilities to ensure that such facilities [are required to] meet the requirements of this Convention*”¹⁸⁰. The facilities are required to prepare a “*Recycling Facility Management Plan*”, and to adopt a report system¹⁸¹. Removal and management of hazardous material is also covered within the requirements, and labelling and identifications are required¹⁸². In addition to these requirements, the “Draft Convention” contains a section about authorization of ship recycling facilities. The main substance of these requirements is that the parties must authorize the different recycling facilities, and later inspections will be carried out¹⁸³. There is nothing in either the Basel Convention, or the Technical Guidelines about recycling facilities needing to be authorized. These requirements must be considered a big improvement in the legislation on ship recycling, and are the only important difference and inconsistency in this matter. The “Draft Convention” contains good requirements on how to ensure environmentally sound management at the ship recycling facility.

There is however, one detail that needs to be emphasised, and that is the phrasing within the “General Requirements”¹⁸⁴ in which it is stated that all recycling facilities shall “*reduce, minimize and ultimate eliminate adverse effect on the environment and human*

¹⁷⁶ Technical Guidelines, Executive summary, figure 1 “Overview of elements to consider for ESM of a ship dismantling facility”, page 9 and section 3

¹⁷⁷ Technical Guidelines section 3.3

¹⁷⁸ Technical Guidelines section 3.4, especially Table 5 “The ship breaking operation”

¹⁷⁹ “Draft Convention” annex 1 C-1 (1).

¹⁸⁰ “Draft Convention” annex 1 C-1(2)

¹⁸¹ “Draft Convention” annex 1 C-4(1)

¹⁸² “Draft Convention” annex 1 C-6 (2) and (3)

¹⁸³ “Draft Convention” annex 1 C-2 (1) and (2)

¹⁸⁴ “Draft Convention” annex 1 C-3 (1)

health caused by ship recycling taking into account guidelines developed by the Organization". The wording may indicate that every effort to reduce adverse effect on the environment or human health will satisfy these requirements, because every little improvement will mean a reduction. It is hard to understand the real sense of this regulation because of the uncertain wording, and the lack of real demands placed upon the facilities. This regulation might give the recycling facilities something to "hide behind", based on the fact that any improvement is in accordance with the regulation.

5.2.5 Obligation to ensure no import/export of hazardous waste/material when reason to believe that it will not be managed in an environmental sound manner

The Basel Convention has adopted a regulation noting that export is not allowed if there is "*reason to believe that the waste in question will not be managed in an environmentally sound manner*"¹⁸⁵. This regulation will prevent the possibility and temptation to export to a member state that does not have satisfying recycling facilities. To make sure that waste is not taken to inappropriate facilities, all parties of the Basel Convention are obligated to "*Prevent the import of hazardous waste and other waste if it has reason to believe that the waste in question will not be managed in an environmentally sound manner*"¹⁸⁶. The way this system is organized makes it hard to find any loopholes in the legal framework in order to employ an insufficient recycling facility.

The "Draft Convention" does not contain any regulations on this particular matter. There are requirements on the recycling process in the annex¹⁸⁷. These regulations however, do not concern the allowance of import and export of waste based on a reason to believe that the particular waste will not be managed in an environmentally sound manner.

This means the Basel Convention is operating with a system that has fewer possible loopholes than the system established in the "Draft Convention".

5.2.6 Obligation to minimize the generation of hazardous waste and materials

The Basel Convention contains a general obligation to reduce the generation of hazardous waste to a minimum¹⁸⁸. This obligation however, is formulated in a general way without

¹⁸⁵ Basel Convention art 4. 2 (e)

¹⁸⁶ Basel Convention art 4. 2 (g)

¹⁸⁷ "Draft Convention" annex 1 section C

¹⁸⁸ Basel Convention art 4. 2 (a)

mentioning any specific mandates, or any detailed legislation on how to achieve the reduction. The way this obligation is set out in the Basel Convention is clearly not the desired way to regulate this matter.

In the preamble of the “Draft Convention” there is a statement claiming “*MINDFUL ALSO of the need to promote the substitution of harmful materials in the constructions and maintenance of ships by less harmful of preferably harmless materials, without compromising the ships’ safely and operational efficiency,*”¹⁸⁹. In addition to this is there in the “Draft Convention” a detailed section regarding design, construction and maintenance of ships¹⁹⁰. This section contains regulations¹⁹¹ in which installation or use of certain hazardous materials are prohibited or restricted. A list of these hazardous materials will be listed in appendix 1. This process is referred to as “Green shipbuilding and design”, and the “Draft Convention” is the first internationally instrument to address this issue. The effect in the long run will be that the recycling process of ships will be more environmental and health friendly. The hazardous materials of to day will not be present, or at least not to the same extend as it is today.

The section on “Green shipbuilding and design” within the “Draft Convention” is a big improvement in the legislation on ship building, and also an necessary act to ensure that ships in the future can be recycled without causing environmental catastrophe and human diseases. There is yet to come a concrete proposal to the list of the prohibited or restricted hazardous materials, and it is most certainly important that materials already known to be a real danger to both the environment and human beings are mentioned in the list.

5.2.7 Decontaminate ships in the OECD countries

The principles that non-OECD countries should not be forced to bear the burden of the pollution of the OECD countries are specified in the Basel Ban Amendment¹⁹². This is not yet legally binding, but after the statement made by the EU Commissioner for Environment

¹⁸⁹ “Draft Convention” Preamble bulk 6

¹⁹⁰ “Draft Convention” annex 1 B, Chapter B-I

¹⁹¹ Regulation B-I-1 (1) and (2) (a) and (b)

¹⁹² Decision II/12, 1995. There is in this decision not made use of the distinction OECD/non-OECD countries, but there are a reference to ban hazardous waste export for final disposal and recycling from Annex VII countries (this are all the parties that also are members of the EU, OECD and Liechtenstein) to non-Annex VII countries (all other parties to the convention).

Stavros Dimas, the EU countries are likely to follow these regulations¹⁹³. The statement were meant as a declaration to agree that ships meant for recycling was to be considered waste, but Mr. Dimas also stated “*that the transfer of ships containing hazardous substances from the EU to countries outside the OECD constitutes export of hazardous waste. This is prohibited under both the Basel Convention and the European Union’s Waste Shipment Regulation*”. The main purpose of the Basel Ban is to ensure that hazardous waste is taken care of by the responsible parties, and not shipped to developing countries to be dealt with there.

The “Draft Convention” does not contain any regulations on this particular matter. The inconsistency between the two legal instruments is one of a serious calibre. The Basel Ban is said to implement the principle of global environmental justice¹⁹⁴, and it is peculiar that this principle is not followed up in the “Draft Convention”. This might create confusion regarding the legal situation on whether ships as scrap can be sold from an OECD country to a non-OECD country or not. The symbolic state of this might create an even bigger issue. It should be emphasized that the acknowledgment of the Basel ban is a truly positive development. Having a regulation like this within the new IMO Convention itself will be difficult to achieve, given the adoption process of getting all the parties to agree on one convention text. However is, within the chosen system, it possible to make requirements or guidelines regarding reduction on transference of hazardous waste from OECD countries to non- OECD countries. The situation will at least receive the proper acknowledgement, albeit without any legal obligations.

5.2.8 Trading with non-members

According to the Basel Convention a party shall “*not permit hazardous waste or other waste to be exported to a non-party or to be imported from a non-Party.*”¹⁹⁵. The purpose of the prohibition is to force non-parties to become parties of the Basel Convention, and with that, be able to more stringently regulate the import and export of waste.

¹⁹³ The statement was made at an Open Hearing at the European Parliament in Brussels on 25 April 2006. See also above under section 4.2.1

¹⁹⁴ Critique of Draft I.M.O ”International Convention for Safe and Environmentally Sound Recycling of Ships”. Prepared by Basel Action Network on behalf of the Global NGO Platform on Shipbreaking.

¹⁹⁵ Basel Convention art 4.5

There is no such prohibition in the “Draft Convention”. However, the recycling facilities, are required to accept only ships that comply with the convention and that are authorized to recycle¹⁹⁶. The lack of a prohibition to export to a non-party opens the possibility for the ship owner to sell the ship to a non-party in order to evade the regulations within the convention.

5.2.9 Illegal traffic

The Basel Convention states that illegal traffic¹⁹⁷ “*in hazardous waste or other waste is criminal*”¹⁹⁸. The “Draft Convention” has adopted a different system for dealing with violations of the requirements within the convention¹⁹⁹. Any violations shall be prohibited, but it is up to administration to establish the ruling for this violation²⁰⁰. The “administration” is “*the Government of the State under whose authority the ship is operating*”²⁰¹. This means that it is left the member states to determine sanctions for any violations within their national laws.

5.3 Conclusion on the discussion on the “Draft Convention”

There is no doubt that there are several inconsistencies between current legislation within the Basel Convention and the proposals within the “Draft Convention”. Some of the inconsistencies represent an improvement, while others are illustrating insufficiently regulations in the new proposal. IMO started the process to create a new legally binding instrument on ship recycling to clear out the chaotic legal situation. It is important to have a stable and controlled situation regarding the legal framework on ship recycling, and therefore it is of great importance that the Basel Convention and the new IMO convention are consistent with each other. There will always be some inconsistencies between the two documents, due to the fact that the Basel Convention was never drafted with ships in mind. In the process of making the new convention it is important not to compromise to such an extent that the result is a convention without any real substance. The current situation, in which the legal issues are adversely affecting the environment and the workers at the recycling yards, is clearly unacceptable.

¹⁹⁶ “Draft Convention” annex 1 C-3 (2) (a) and (b)

¹⁹⁷ Basel Convention art 2.21: “*Illegal traffic*” means any transboundary movement of hazardous waste or other waste as specified in Article 9

¹⁹⁸ Basel Convention art 4.3

¹⁹⁹ “Draft Convention” art 10 (1)(a)

²⁰⁰ “Draft Convention” art 10 (1)(a)

²⁰¹ “Draft Convention” art 2(1)

6 View on a hypothetical development

6.1 The current situation

The current situation is that both the ship owners and their financial institutions anticipate a final scrap value when the ship is ready for recycling. The calculated scrap value is the price received for the ship when selling either to a “cash buyer” or to a recycling facility.

6.2 Hypothetical changes within the recycling system

The way the system works today in which the recycling facilities pay a great deal of money for the ships, and in which the ship owners and financial institutions are relying on the scrap value, may change. The situation may turn around, to a system in which the ship owners are required to pay for the ships to be recycled. The reason for this hypothetical change is the growing concern for the environment. The international community is beginning to demand that ship recycling be done in a non-harmful and environmental friendly manner. The consequence might be that ship recycling can take place only at dry docks, or at beaches under highly regulated and controlled circumstances. The possible and very best ways of handling the different materials within the constructions of the ships are extremely expensive, and might cost more than what the steel is worth. This means that ships ready for recycling may have negative value in the future. Some, whose attitude is “The polluter shall pay”, might find that such a situation is desirable, and one to work towards. There are good reasons to agree with this statement, but the situation is much more complex than that.

The main question regarding a situation in which ships have negative value is how to distribute responsibility if the ship owner does not have money to provide for recycling when the ship is taken out of service. There are several alternatives, but none that sounds likely to be established as a permanent solution.

The first possible candidate would be the financial institution that, in most cases, is co-owner due to a mortgage on the vessel. The likely consequence of this is that the financial institution would alter the financial structure in order to avoid such a payment. They

would demand that any given mortgages must be satisfied several years before the vessel is likely to be taken out of service. The financial institution would therefore not have ownership in the vessel when it is ready for recycling.

The second possible candidate would be the government of the flag state of the ships. The state would be responsible for the ship owners lack of payment. This arrangement is hardly a good solution. Some ships are changing flags, and distribution of responsibility between the different flags states would have to be carried out. The calculation would be complicated, if at all possible.

A third alternative would be for all ship owners to establish a recycling fund for each vessel in their fleet. The fund would later finance the recycling operation. This option is the only possible alternative out of the ones mentioned here. However, there are, problems relating to this arrangement. Vessels are often sold several times during their operating life, and the fund must somehow follow the ship. The final amount within the fund is not likely to be the exact same as the cost of the recycling, and there must be rules regarding what to do with any surplus or deficit in the fund. This would create difficulties for the many vessels that have had several different owners. Also the practical establishment of such a arrangement would be difficult given all the existing ships that have already been sold to different owners several times.

This brief resume illustrates how difficult and complex the situation could be if the regulations were to be too strict, and recycling of ships consequently so expensive that the ships would end up with a negative value.

It is also important to have in mind that the shipping industry in general is experiencing, and has been for some time, a good market in which the demand for both new ships and charter of existing ships has been high. The different parties in the industry are, in general, making money. Shifts within the market could create less income for the owners of the vessels, and that, in turn, could create a situation in which the ship owners have difficulties getting rid of a non-operative vessel. The owners would simply not be able to afford to have their vessels recycled. That again may create a dramatic situation in which ships that have reached the end of their lives are kept in so-called ghost fleets, or even scuttled. Some might take advantage of the situation, and begin to recycle and scuttle vessels illegally.

7 Concluding remarks and recommendations

In the context of the current legislation on ship recycling, and with the development of a new legally binding instrument, how are the different legal frameworks consistent with each other?

The analysis within this assessment has been the comparison of both current and upcoming legislation. The first comparison refers to the Basel Convention and the IMO Guidelines, and there appears to be significant inconsistencies between these documents. This legal situation is rather unfortunate. The ship recycling industry is a major business, with numerous stakeholders, all partly responsible for the recycling process. The inconsistencies within the legal frameworks make this industry unstable.

The fact that IMO is currently working on a new legally binding convention indicates that the need for consistency and structure are properly addressed. The “Draft Convention”, is not coordinated and consistent with the Basel Convention. There are numerous inconsistencies within these two documents. IMO should seize this opportunity to clear out the legal mess that occurs today. However, attention must be brought to the general willingness to sign convention within the international community. Some countries may not want to, or cannot afford to restrict any opportunity to make profit, and will therefore not be willing to agree to international environmental regulations. Although the process of making and adopting a convention is complicated, is it important that IMO uses this opportunity to distribute responsibility to the different stakeholders. Ship owners and flag states should have their responsibilities laid out in a clear and distinctive manner. This should be done within the actual convention, and not within the annexes.

On the other hand it is extremely important to bear in mind that most of the major recycling states are developing countries, and they need every job this industry can offer. The President of the Iron Steel Scrap and Shipbreakers Association of India, Mr. Nagarsheth, claims the NGO’s in some ways have made the situation in India worse than before, by campaigning for stricter regulations for recycling in India. The ship owners have then selected other recycling states, like Bangladesh, and Indian workers are again

unemployed. At its peak, over 35.000 people were directly employed in the ship recycling industry in India. The indirect employment of people in this industry was over a hundred thousand²⁰². Mr. Nagarsheth claims India has lost thousands of jobs to Bangladesh.

The situation in Bangladesh is similar; the government has made a decision to be one of the leading nations within the industry²⁰³. There are estimated that around 200.000 people in Bangladesh benefit directly or indirectly from this industry²⁰⁴. Many of these people have no other possibility for an income, and the alternative might be living in the slum. Taking these jobs away from Bangladesh would aggravate the life for hundred thousands of people²⁰⁵.

IMO should, in a greater manner than today, be an active participant in the work on how to improve the safety and work environment for the facility workers. In the annex of the “Draft Convention” there is an adopted regulation regarding “workers safety and training”²⁰⁶. These requirements places the responsibility to provide for protective equipment, proper clothing and training programmes prior to working at any recycling operations on the recycling facilities. The fact that the problem is addressed and given acknowledgement is great. The problem, however, is that the responsibility is not distributed between all the stakeholders in the right manner.

The people working at the facilities should be given the proper legal protection by IMO and a general article should be added to the convention. No compromises whatsoever should be made on this matter.

²⁰² Mr. P.S Nagarsheth ”Ship recycling is lifeline of shipping industry”

²⁰³ ”Til Kne i søla- om skipsopphugging, arbeidsforhold og miljø i Chittagong, Bangladesh” av NorWatch, Fremtiden i våre hender.

²⁰⁴ Paul Baily, ILO Shipbreaking expert

²⁰⁵ NorWatch

²⁰⁶ ”Draft Convention” annex 1 C-8

8 References

Legal sources:

Conventions:

1958 *Geneva Convention on the High Seas*, www.oceanlaw.net/texts/genevahs.htm

1972 *Convention on the prevention of marine pollution by dumping of waste and other matter* (London Dumping Convention),
www.oceansatlas.org/world_fisheries_and_aquaculture/html/issues/ecosys/envimpactoth/dumpcon.htm

1989 *The Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal*, www.basel.int/text/documents.html

1995 *The Basel Ban* (decision II/12, 1995), www.basel.int/pub/baselban.html

2005 *Draft International Convention for the Safe and Environmentally Sound Recycling of ships*. (Res. A 981(24))

Acts:

1981 *The Norwegian Pollution Control Act* (Lov om vern mot forusensning og om avfall 13 mars. Nr. 6 1981), www.regjeringen.no/en/doc/Laws/Acts/Pollution-Control-Act.html?id=171893

1994 *The Norwegian Maritime Code* (Lov om sjøfarten 24 juni. Nr. 39 1994),
<http://folk.uio.no/erikro/WWW/NMC.pdf>

2007 *The Norwegian Ship Security Act* (Skipssikkerhetsloven, lov-2007-02-26-9),

Administrative regulations:

2004 *Forskrift om gjenvinning og behandling av avfall* (Avfallsforskriften, FOR-2004-06-01-930), www.lovdata.no/cgi-wift/wiztldles?doc=/usr/www/lovdata/for/sf/md/md-20040601-0930.html&emne=avfall*&&

Guidelines:

1999 *Industry Code of Practice on Ship Recycling* (ICS), www.marisec.org/recycling/

2002 *Technical Guidelines for the environmentally sound management of the full and partial dismantling of ships*, www.basel.int/pub/techguid/pop_guid_final.pdf

2003 *IMO Guidelines on Ship recycling* (Res. A962 (23)), www.imo.org/includes/blastDataOnly.asp/data_id%3D11404/ResShiprecycling962.pdf

2004 *Safety and health in ship breaking: Guidelines for Asian countries and Turkey* (ILO), www.ilo.org/public/english/protection/safework/cops/english/download/e000020.pdf

2006 *Draft Guidelines for the development of the Inventory of Hazardous Materials* (submitted by Japan and Germany, MEPC 55/3/1)

Preparatory Works:

Ot.prp. No. 11 (1979-80) Forurensningsloven

St.meld no. 21 (2004-05) The Government's environmental protection politics and the realms environmental condition (unofficial translation)

Literature and articles:

Bailey, Paul (2006): *Is there a decent way to break ships?*, ILO, Department of Communication, www.ilo.org/public/english/dialogue/sector/papers/shpbreak/index.htm

Basel Action Network: *Analysis of inconsistencies between IMO Guidelines on shiprecycling and the Basel Convention*,
www.greenpeaceweb.org/shipbreak/analysisinconsistencies.pdf

Basel Action Network (2006): *Critique of Draft I.M.O "International Convention for safe and environmentally sound recycling of ships"*, Prepared on behalf of the Global NGO Platform on Shipbreaking,
www.ban.org/Library/IMO_Draft_Convention_CritiqueFINAL.pdf

Bastiansen, Erik (2005): *Decommissioning of Ships 2005-2020*

Berg, Irene (2005): *Nytt skipsopphuggingsforslag altfor svakt*, Greenpeace Norway,
www.greenpeace.org/norway/news/nytt-skipsopphuggingsforslag-a

BIMCO (2006): *Why recycling legislation should be left to the IMO*,
www.bimco.org/Corporate%20Area/Hot%20topics/Recycling/Recycling%20issues/Why%20recycling%20legislation%20should%20be%20left%20to%20the%20IMO.aspx

BIMCO (2006): *Recycling towards a mandatory regime*,
www.bimco.org/Corporate%20Area/Hot%20topics/Recycling/Recycling%20issues/Recycling%20towards%20a%20mandatory%20regime.aspx

BIMCO (2006): *Ship Recycling Industry: The Basis and The Future*,
www.bimco.org/Corporate%20Area/Hot%20topics/Recycling/Recycling%20issues/Ship%20Recycling%20Industry%20The%20Basis%20and%20The%20Future.aspx

Currie, Duncan and Stairs, Kevin and Gutierrez J.D (2002): *Shipbreaking and the Legal Obligations Under the Basel Convention*, Basel Action Network and Greenpeace International, www.ban.org/Library/ShipbreakingLegal%20Final.pdf

Dimakopoulos, Sokratis, (2005): *The IMO work on ship recycling*, IMO News NO.2 2005,
www.imo.org/includes/blastDataOnly.asp/data_id%3D17986/TheIMO.pdf

Dimas, Stavros (2006): *Solution for the responsible recycling of ships*, European Parliament, Brussels, 25 April 2006,
www.ebcd.org/EPISD/25042006/Speech%20Stavros%20Dimas.pdf

Ecodock: www.ecodock.info

Global NGO Platform on Shipbreaking (2006): *Draft I.M.O treaty called "Shockingly inadequate" in addressing global ship scrap crises*,
www.greenpeaceweb.org/shipbreak/prfinal160306.pdf

Global NGO Platform on Shipbreaking (2006): *Draft IMO Treaty on ship Scrapping Immoral*, www.ban.org/ban_news/2006/061013_ship_scrapping_immoral.html

Greenpeace International and Basel Action Network (1999): *Ship breaking and the Basel Convention- an analysis*, prepared for the Technical Working Group of the Basel Convention, www.ban.org/subsidiary/shipbreaking_and.html

Greenpeace International: *Ship Breaking Under International Law*,
www.greenpeace.org/india/campaigns/toxics-free-future/ship-breaking/ship-breaking-under-internatio

Greenpeace International (2002-07): *About shipbreaking*, Information sites on ship breaking, www.greenpeaceweb.org/shipbreak/whatis.asp

Greenpeace International (2004): *Recycling of ships - Proposal for mandatory guidelines*, MEPC 52/3/2, www.greenpeaceweb.org/shipbreak/MEPC5232.pdf

Greenpeace International (2006): *The need to develop a new legally-binding instrument that will build and improve upon existing environmental justice legislation*, MEPC 54/3/5/Rev.1, www.greenpeaceweb.org/shipbreak/MEPC54.pdf

Greenpeace and YPSA (2006): *End of life- the human cost of ship breaking*,
www.greenpeace.org/raw/content/international/press/reports/end-of-life-the-human-cost-of.pdf

Gutiérrez, Rafael (2002): *Ship Recycling*, Maritime Industries Forum 2002, www.mif-eu.org/Naples_Manuf_Recycling.pdf

Hammer, Helle (2000): *The Norwegian Shipping Industry*, on behalf of Ministry of Foreign Affairs

Halvorsen, Eva (2006): *Embracing Green Passports*, Det Norske Veritas,
www.dnv.com/publications/dnv_forum/by_subject/classification/EmbracingGreenPassports.asp

ICS (2006): *Normal Recycling Procedures*, presented at MEPC 55th session,
www.marisec.org/news/Industry%20Submissions/ICS%20Submission%20MEPC%2055%20-%20ICS%20Inf%20%20Document.pdf

IMO (2005): *Revised phase-out schedule for single-hull tankers enters into force*,
www.imo.org/Safety/mainframe.asp?topic_id=1018&doc_id=4801

IMO (2007): *Recycling of ships*, www.imo.org/Environment/mainframe.asp?topic_id=818

Johannesen, Øsgeir (1998): *Ulovlig eksport av skip til opphugging i Asia*, NorWatch Nyhetsbrev nr. 15, 1998,

www.justmake.no/kunder/norwatch/index.php?artikkelid=664&back=1

Joint ILO/ IMO/ BC Working Group on ship scrapping (2005): *Report of the Joint Working Group, Annex II: Findings of the informal working group on the comparison of the three sets of guidelines*,

www.imo.org/includes/blastDataOnly.asp/data_id%3D13466/reportofsecondiloimobaselgroupdec2005.pdf

Karlstrøm, Arve (2006): *Skip som dør kommer ikke til himmelen. De kommer til helvete i Bangladesh*, Magasinet for Fagorganiserte no. 6/2006,

www.frifagbevegelse.no/multimedia/archive/00923/Magasinet_nr_6_200_923822a.pdf

Marine Norway (2006): *Skipsfart*, www.marinenorway.ekanal.no/sider/tekst.asp?side=75

Mikelis, Nikos (2006): *Developments and Issues on Recycling of Ships*,

www.imo.org/includes/blastDataOnly.asp/data_id%3D17980/Developments.pdf

Nagarsheth, P. S (2006): *Ship recycling is lifeline of shipping industry*,

www.merineews.com/catFull.jsp?articleID=210&catID=2&category=Nation

Orellana, Marcos (2006): *Shipbreaking and Le Clemenceau Row*, The American Society of International Law, www.asil.org/insights/2006/02/insights060224.html

Pike, John (2005): *Shipbreaking*, GlobalSecurity.org,

www.globalsecurity.org/military/systems/ship/shipbreaking.htm

Rahman, Ataur and Ullah, AZM Tabarak, (1999): *Ship Breaking A Background Paper*, Prepared for the ILO's Sectoral Activities Programme, Dhakar,

www.ilo.org/public/english/protection/safework/sectors/shipbrk/shpbreak.htm

Rønneberg, M (2002): *Til kne i søla- om skipsopphugging, arbeidsforhold og miljø i Chittagong, Bangladesh*, NorWatch, www.norwatch.no/filer/Skipsopphugging.pdf

Samstag, Tony and Rajesh Joshi (2007): *Norwegian Shipping- The past, the present and the future*, Horn Forlag AS (Norway Online), www.norwayonline.no/?cat=26

Ulfstein, Geir (1999): *Legal Aspect of Scrapping of Vessels*, A study for the Norwegian Minister of Environment, www.ban.org/Library/dismant.PDF

Wijnolst, Niko (2001): *Towards a ship recycling industry charter*, 2nd Global Ship Recycling Summit 2001, www.mareforum.com/shiprecycling_charter.htm

Aakvik, Gunvor (2006): *Hovedpunktene i rederiskatteutvalget*, Norges Rederiforbund, www.rederi.no/default.asp?V_ITEM_ID=710&AID=865&TEMPORARY_TEMPLATE=79

Other References:

Concise Oxford English Dictionary (2006) 11th edition

Dimas, Stavros (2006): *Statement at an Open Hearing at the European Parliament in Brussels*,

<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/259&format=HTML&aged=1&language=EN&guiLanguage=en>

Lloyd's Register Fairplay (2005): *Top 20 largest shipping flags*,

www.marisec.org/shippingfacts/keyfactsflags.htm

Statistisk Sentralbyrå (2005): *Norske skip under fremmed flagg frakter mer*,
www.ssb.no/emner/10/12/40/skianut/main.html

UNCTAD (2003): *Top 20 beneficial ownership countries*,
www.marisec.org/shippingfacts/keyfactsbenowners.htm