DANGEROUS GOODS CARRIED BY SEA: IS THE CURRENT REGIME *FIT FOR PURPOSE?*

An examination of the Carriage of the Goods by the Seas Convention and International Provisions in respect to the Carriage of Dangerous Goods

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ABSTRACT

The purpose of this research is to explore whether the current regime in regards dangerous goods carried by the sea is *fit for purpose*. One of the primary concerns is that the issue of breach and circumvention of the technical standards under the International Maritime Dangerous Goods (IMDG) is compounded by the fact that national laws have different definitions of what constitutes a dangerous good, even though the IMDG should have a harmonising effect through its technical standards and classification. This gives rise to arguments for an entirely separate regime for the transportation of dangerous goods by the sea, which is not related to general goods carriage in marine transportation. The specialisation of hazardous carriers supports the argument for developing a single international standard for the carriage of dangerous goods. However, if a single international standard is to be created then it must extend past the current *hodgepodge* of standards, conventions and technical specifications in regards to dangerous goods carried by the sea. Therefore, the premise of this research has been that there needs to be a single international legal framework for dangerous goods, which frames all aspects of shipment from bills of lading, duties of the shipper and carrier and the liability regime.

The objectives of the research are; 1) to explore the meaning of dangerous goods under the Hague-Visby Rules (English law), Hamburg Rules (US law) and International Regulations (IMDG); 2) to identify the various International Codes, Conventions and Regulations that are in place that impact the shipment of dangerous goods by the sea.; 3) to examine the duties of the shipper and the carrier in relation to the shipment of dangerous goods under the Hague-Visby Rules (English law) and the Hamburg Rules (US law).; 4) to investigate the liabilities arising out of the breach of duties of the parties under the three systems, i.e. the Hague-Visby, Hamburg and Rotterdam Rules, in relation to the shipment of dangerous goods; and 5) to critically examine the current regime and propose (if necessary) reform to the current approach to the shipment of dangerous goods by the sea.

In order to justify this argument this research will undertake a comparison of US and English law in the area of carriage of dangerous goods by sea. The rationale for choosing these two regimes is because the duties of the shipper and carrier in the US are governed by the Hamburg Rules; whereas English law is governed by the Hague-Visby Rules. Both rules apply through national legislation. In addition to these two regimes the Rotterdam Rules 2009 has been considered,

because it is the only general goods convention that expressly defines a dangerous good. Therefore, this comparative methodology has helped to determine if there is a strong argument for a harmonised approach. This is because the harmonised approach will ensure that there is same approach to liability and breach under the IMDG standards to the shipment of dangerous goods by the sea. In addition, future study advocating the harmonisation through a standalone dangerous goods carriage by the sea protocol needs to undertake further comparative reviews of domestic implementation of dangerous goods regulations and the interplay with the carriage by the sea conventions.

The findings of this research provide a strong justification for supporting the argument that there needs to be a separate legal regime for the shipment of dangerous goods by sea. This is identified in the evolution of maritime transport and its growing importance in the modern commercial regime. This is compounded by the change in scientific methods and the requirements of an international market, which relies on dangerous compounds to function. In addition, with the scientific evolution that has changed the market of goods there is also a greater understanding of the environmental effects of shipping as well as the release of dangerous goods on the marine ecosystem. The combination of these factors creates a persuasive argument that there needs to be a separate regime. Thus, this research illustrates the impact of the current legal regimes in order to identify if a separate legal regime is necessary because the current international standards are only as effective as their application within a specified jurisdiction. In addition this research will identify whether there is [or should be] an all-encompassing set of rules for a multimodal convention in regards carriage of dangerous goods, which will provide a door-to-door as opposed to just a port-to-port harmonising benchmark to make the IMDG and other safety regulations effective.

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ABBREVIATIONS/ LIST OF ACRONYMS

LEGISLATION AND LEGAL TERMS:

ARPMPV	Administrative Rules of the PRC for Preventing Marine Pollution caused by Vessels
ARSSDCV	Administrative Regulations of the PRC on the Safety Supervision of Dangerous Cargo on Vessels
BCH Code	Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
CLC	International Convention on Civil Liability for Oil Pollution Damage
COGSA	Carriage of Goods by Sea Act
FUND	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
HNS Convention	International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea
HR or the Hague Rules	International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, 1924
HVR or the Hague-Visby Rules	Brussels Protocol amending the Hague Rules relating to Bills of Lading, 1968
IBC Code	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
IGC Code	International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk
IMDG Code	International Maritime Dangerous Goods Code
IOPC Fund	International Oil Pollution Compensation Fund

ISM Code	International Management Code for the Safe Operation of Ships and for Pollution Prevention ("International Safety Management Code")
LOT	Load on Top
MARPOL	The International Convention for the Prevention of Pollution from Ships
*MEP*L	Marine Environmental Protection Law of the PRC
MSA	Merchant Shipping Act
MSR	Merchant Shipping Regulations
MTSL	Maritime Traffic Safety Law of the PRC
NYPE	New York Product Exchange Time Charter
ORPC	International Convention on Oil Pollution Preparedness, Response and Co-operation
RADCP	Regulations of the PRC on Administration of Dangerous Cargo at Port
Ro-Ro	Roll on, Roll off
RR 2009 or the Rotterdam Rules 2009	United Nations Convention on the Contracts for the International Carriage of Goods Wholly or Partly by Sea
SDR	Special Drawing Right
SMPEP	Shipboard Marine Pollution plan for Noxious Liquid Substances
SOLAS	Convention for the Safety of Life at Sea
SOPEP	Ship or Oil Pollution Emergency Plan

ORGANIZATIONS

CMI	Comité Maritime International
IMO	International Maritime Organization
ITOPF	The International Tanker Owners Pollution Federation Limited

MOC	The Ministry of Communications of PRC
MSC	Maritime Safety Committee of IMO
UN/ECE	UN Economic Commission for Europe
UNCITRAL	United Nations Commission on International Trade Law

COURTS

C.A.	Court of Appeal
C.A. (9th Cir.)	US Court of Appeals (9th Circuit)
H.C	High Court
H.L.	House of Lords
P.C.	Privy Council
Sup. Ct	Supreme Court

JOURNALS

All E. R. Rev.	All England Law Reports Annual Review
C.L.J.	Cambridge Law Journal
E.L.M.	Environmental Law and Management
Env. L. Rev.	Environmental Law Review
Env. Liability	Environmental Liability
I.B.L.	International Business Lawyer
IJMCL	International Journal of Marine and Coastal Law
IJSL	The International Journal of Shipping Law
J.B.L.	Journal of Business Law
JEEPL	Journal for European Environmental & Planning Law

J. Mar. L .& Com	Journal of Maritime Law and Commerce
J. I. M. L.	Journal of International Maritime Law
Ll. L. R.	Lloyd's List Law Reports
Lloyd's Rep.	Lloyd's Law Reports
L.M.C.L.Q.	Lloyd's Maritime and Commercial Law Quarterly
Mar. Pol'y & Mgmt.	Maritime Policy & Management
MLAANZ	Journal Maritime Law Association of Australia and New Zealand Journal
Tul. Mar. L.J.	Tulane Maritime Law Journal
U. Pa. J. Int'l Econ. L	University of Pennsylvania Journal of International Economic Law
U.S.F. Mar. L.J.	University of San Francisco Maritime Law Journal

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Carriage of dangerous goods is a growing concern, as 10% of the world's cargo comprises of dangerous goods and is growing[1]. It is important to identify that this figure of 10% is the declared value; albeit there is a problem of undeclared dangerous goods[2]. Ellis argues that

> ***Dangerous goods that have not been correctly declared when offered for transport have contributed to some serious accidents at sea. Safe handling, stowage, and segregation of packaged dangerous goods cannot be carried out if there is no knowledge of the presence of dangerous goods inside the cargo transport unit (container and/or trailer), or if the goods have been incorrectly declared[3].***

The implication that shippers are able to circumvent the regulations and laws, surrounding the carriage of dangerous goods by the sea, indicates that these laws are not *fit for purpose*. Hence, the basis of this research is to identify whether the current system of regulation is capable of meeting the challenges of increased carriage of dangerous goods by the sea or a reform is necessary.

The current system on dangerous goods is a mixture of regulations, which work together to create a system of liability for the shipper and carrier. This liability may differ from one jurisdiction to another depending on the rules that bind the shipper and the carrier. For instance, under English law the Hague-Visby Rules govern the carriage of goods by sea whereas in the USA the Hamburg Rules form the basis of the regulatory regime. In addition, the nature of what constitutes as *dangerous* within these regimes creates much difficulty, because the concept of what is meant by a dangerous good is not defined in the Hague-Visby or Hamburg Rules. Therefore, this highlights the increased need for clarifying the position of dangerous goods within international carriage of goods. This is because

[1] GreenPort (2011) "Dangerous Goods", Available online at: http://www.greenport.com/features101/tugs,-towing,-pollution-and-salvage/safety/dangerous-goods
[2] Ellis, J (2010) "Undeclared dangerous goods – Risk Implications for Maritime Transport" *WMU Journal of Maritime Affairs 9(1) 5-27*
[3] Ibid

Dangerous goods, as a category, make legal sense only if the rules attached to it are different from those governing cargo in general and there are rules based on the concept of "dangerous good". Worldwide concern with the risks posed by the increased frequency in the carriage of dangerous goods has led to the progressive formulation and adoption of international technical standards to promote maritime safety[4].

The development of the rules surrounding dangerous goods has created a limited harmonisation of what constitutes dangerous goods, such as the International Maritime Organisation's (IMO) Dangerous Goods Regulations (IMDG).

The problem lies in the fact that there are different interpretations and applications of what constitute a dangerous good within the general rules, i.e. the Hague-Visby, Hamburg and Rotterdam Rules. This is then compounded by the different system of liabilities for the shipper and carrier under these rules. To a certain extent there has been harmonisation of packaging rules, in respect to certain dangerous goods, in the EU under Council Directive 67/548/EEC[5]. Even so these regulations do not harmonise the general approach to carriage of goods by the sea, which may be the reason for backing of the Rotterdam Rules. The purpose of the Rotterdam Rules is to harmonise the liability, duties and obligations of carriers and shippers, which may reduce the avoidance and circumvention of the IMDG rules under the current multi-system approach to the shipment of goods by the sea. The multi-system approach has resulted in shippers being able to overreach the technical standards under the IMDG, because the application of these standards is interpreted differently. The implication of this is an increased opportunity for the loopholes to be created in order to circumvent the spirit and purpose of the IMDG[6]. Thus, this gives credence to the argument of the EU parliament for harmonisation of the rules surrounding the obligations, duties, and liabilities of the shipper and the carrier.

The Hamburg and the Hague-Visby Rules remain the principle basis of maritime transport law, because of their involvement in primary shipping countries, such as the UK and the USA. Albeit,

[4] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer, pg. 2
[5] Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances, Available online at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31967L0548:EN:HTML
[6] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer, pg. 18

the newly approved Rotterdam Rules 2009 that are becoming increasingly supported, which can be identified through the EU's recommendation of support. Hence, this illustrates the desire for uniformity within maritime commercial law. One of the possible implications that the Rotterdam Rules may bring to the area of shipment of dangerous goods is that they could provide a uniform liability regime and a clear definition of dangerous goods.

The duties of the shipper and carrier are crucial to understand because this is where the identification of liability, obligation and duty lies in regards to the shipment of dangerous goods by the sea. However, the current regime indicates that there is no single set of rules in these areas. For example, under Hague-Visby there is an implied duty for the shipper not to ship dangerous goods without proper consent and notification[7]. The effect of this implied duty is that it does not expressly deal with the duties of the shipper and carrier in relation to the shipment of dangerous goods. On the other hand, the Hamburg Rules does deal with the shipper and carrier in relation to the shipment of dangerous goods.

It has also been identified that the Hamburg and Hague-Visby Rules fail to deal with multimodal transport, i.e. they are port-to-port as opposed to door-to-door[8]. On the other hand, the Rotterdam Rules have been developed in order to deal with this issue amongst others. As Berlingieri argues the

> ***regime adopted in 1924 [Hague-Visby Rules], even with the amendments introduced by the two Protocols, is in part obsolete and does not satisfy the needs of to-day's maritime trade […] One requirement in particular, shared by a significant portion of the trade, is not satisfied by any of the existing Conventions, i.e. the need for a unique, uniform regime for the door-to-door container trade*** [9]***.***

[7] Carr, I (2009) *International Trade Law*, Taylor and Francis, pg. 238
[8] Berlingieri, F (2003) "New Convention of the Carriage of Goods by the Sea: Port-to-Port or Door-to-Door" *8 Unif. L. Rev. n.s. 265*, pg. 265; Faria, J. Angelo Estrella, *Uniform Law for International Transport at UNCITRAL: New Times, New Players, and New Rules, Texas International Law Journal, Vol. 44, Spring 2009*, p.297; Z. Hassan and N. Ismail, 'The Weaknesses of the Hague Rules and the Extent of Reforms made by the Hague-Visby Rules' (2008), Available [Online] at: http://zulkiflihasan.files.wordpress.com/2008/06/microsoft-word-hague-visby-rules.pdf;
[9] Berlingieri, F (2003) "New Convention of the Carriage of Goods by the Sea: Port-to-Port or Door-to-Door" *8 Unif. L. Rev. n.s. 265*, pg. 265-6

Part of the need for a harmonised approach to the carriage of goods by sea is that there is a greater degree of uniformity in the transport of goods by air, rail and road. For example, road carriage is governed by the Convention on the International Carriage of Goods by the Road (CMR), which is instituted in domestic law such as England and Wales *Carriage of Goods by the Road Act 1965 (as amended by the Carriage by Air and Road Act 1979)*[10]. A similar harmonised approach is identifiable in the carriage of goods by air, which is the Warsaw System[11] and the Montreal Convention[12] and by rail, i.e. the Convention on the International Carriage by Rail 1999 (COTIF)[13]. The Warsaw System has been instituted in England through the *Carriage by Air and Road Act* 1979 whereas the COTIF system came into force on 1 July 2006 in the UK with the *Railways (Convention on International Carriage by Rail) Regulation SI 2005 2095*[14]. Although, there is a measure of harmonisation through the conventions in the area of carriage of goods by sea, there is a greater degree of uniformity in the case of air, rail and road.

Therefore, the implication of the approach to air, rail and road is that rather than a number of international conventions there is a single approach. The problem that the carriage of goods by sea brings is that there are a number of approaches, which raises concerns about the sea-leg of any shipment because it may give rise to uncertainty of the liabilities as the goods move from one mode of transport to another. The benefit of the Rotterdam Rules in this respect is that any shipment that contains a sea-leg is covered exclusively by these rules from door-to door[15]. This simplifies the obligations of the shipper and the carrier, which is crucial in the case of the shipment of dangerous goods. However, it must be borne in mind that a harmonised approach defined by a single set of rules may lack the flexibility of a case to case basis. The case to case

[10] Eckardt, T, Steger, A, Rosing, J, Dawson, GW, Ylikantola, T, Eckoldt, J, Garcia, LA, Schmitt, M and Hinderlig, R (2010) "Multimodal Transport including Cross-Border Road Haulage – Will the CMR Apply? *EJCCL 2(3)* 152-163, pg. 152; *Carriage of Goods by the Road Act 1965 (as amended by the Carriage by Air and Road Act 1979)*, Available online at: http://www.legislation.gov.uk/ukpga/1979/28

[11] Convention for the Unification of Certain Rules Relating to International Carriage by Air, signed at Warsaw on 12 October 1929 (Warsaw Convention), Available online at http://www.jus.uio.no/lm/air.carriage.warsaw.convention.1929/doc.html

[12] Carr, I (2009) *International Trade Law 4th Edition*, Routledge, pg. 335; Text of Montreal Convention (Convention for the Unification of certain rules for International Carriage by Air) from the United Nations available online at: http://untreaty.un.org/unts/144078_158780/3/5/11624.pdf

[13] Intergovernmental Organization For International Carriage by Rail, Available online at: http://www.otif.org/index.php?id=143&L=2

[14] Carr and Kidner (2008) *International Trade Law Statutes and Conventions 5th Edition*

[15] Hoeks, M, (2010) *Multimodal transport law. The law applicable to multimodal contract for the carriage of goods* Kluwer Law International

approach is central to the development of the IMDG, which means that the Rotterdam Rules may not be *fit for purpose* if strictly applied.

The issue that this examination will consider is which regime is most effective in regards to the shipment of dangerous goods. In other words, is the common law approach introducing flexibility into the system or does it create uncertainty. Therefore, the benefit of using the comparative approach allows the researcher to identify the similarities, problems and effectiveness of the current legal regime.

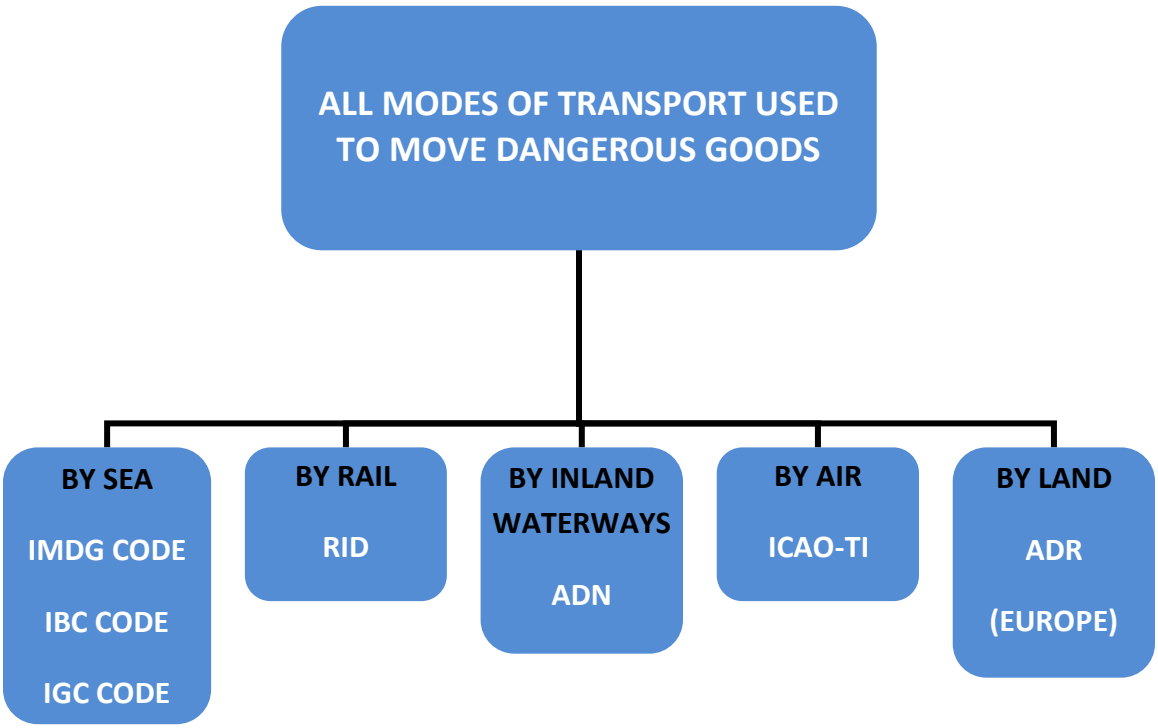

Figure 1: The International Regulatory System for Transport of Dangerous Goods. The IMDG Code, IBC Code, IGC Code, RID, ADN, ICAO-TI and ADR are acronyms for the applied regulations.

Source: Compiled by author

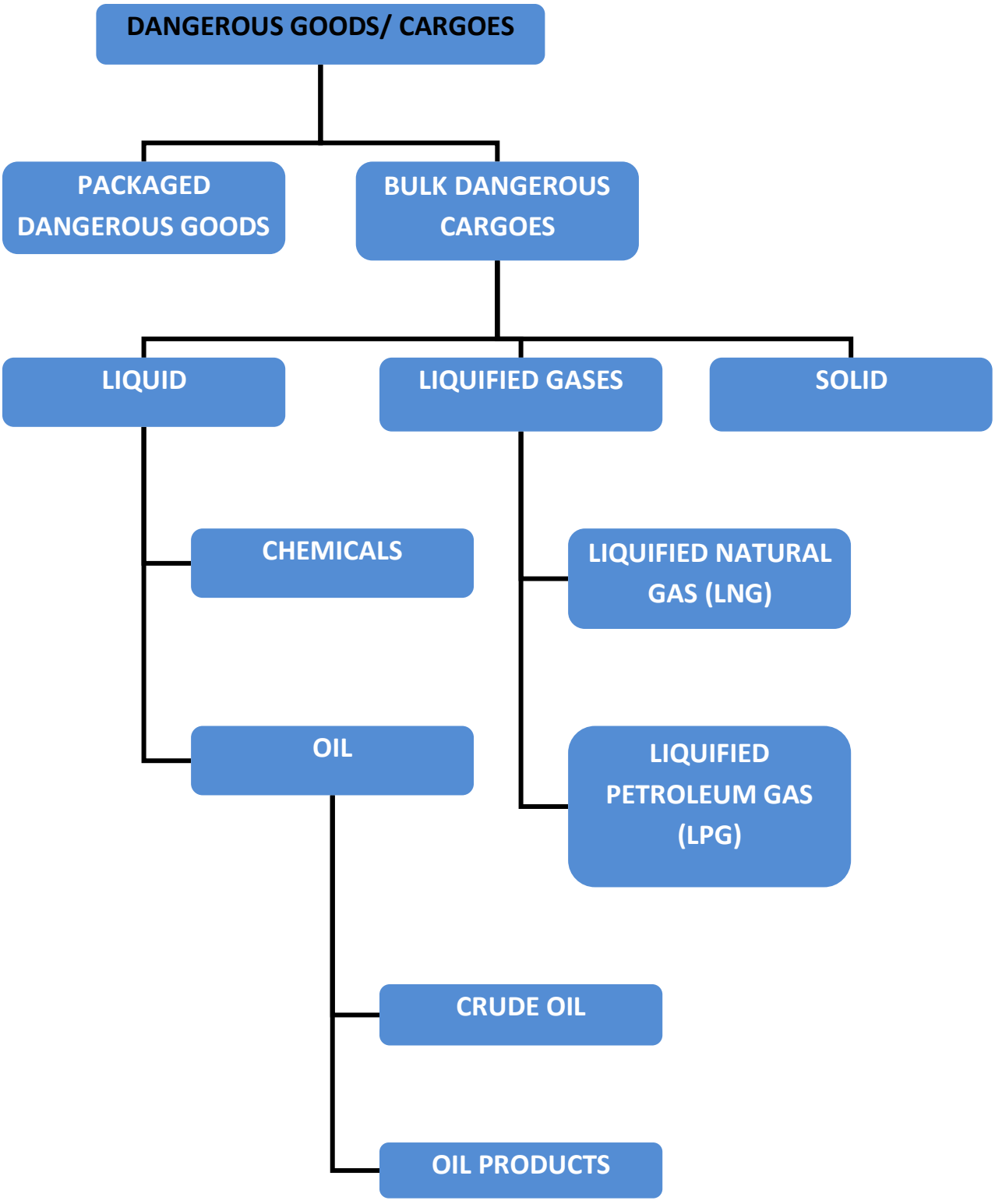

Figure 2: The form in which dangerous goods/cargoes are carried by sea

Source: Compiled by author

1.1 METHODOLOGY:

1.1.1 AIMS AND OBJECTIVES:

The thesis of this research is that the current regime is not *fit for purpose*. The justification of this argument is that although the shipment of dangerous goods is declared at 10% it is believed that the "real figure" could be much higher than this. The reason for undeclared dangerous goods may not necessarily be due to the shipper circumventing the legal system. Rather the classification of the good may not be classed as dangerous under the IMDG, which leads to confusion of whether it is dangerous or not under the regulations that govern liability over a specific contract. The repercussion of this is that there are goods being transported without the requisite knowledge of the carrier to ensure that the correct protective provisions are made. Ellis argues "that information is the most important factor in the carriage of dangerous goods, and that the master and crew need to be fully aware of the nature and properties of cargo for both cargo protection and safety of human lives and property"[16]. It is essential that the current regulatory approach meets this requirement; for that reason the aim of this research is to identify to what extent the current system of international law is sufficient to deal with the modern shipping of dangerous goods.

In order to meet this aim the following objectives have been set:

1) To explore the meaning of dangerous goods under the Hague-Visby Rules (English law), Hamburg Rules (US law) and International Regulations (IMDG). These meanings will be compared against the backdrop of the most recent Rotterdam Rules;
2) To identify the various International Codes, Conventions and Regulations that are in place that impact the shipment of dangerous goods by the sea. The purpose of this examination is to highlight how there is a discord of the rules in regards to dangerous goods, because there is a myriad of conventions and still the issue of the liability regime lies with the regulations in regards to the shipment of general goods;
3) To examine the duties of the shipper and the carrier in relation to the shipment of dangerous goods under the Hague-Visby Rules (English law) and the Hamburg Rules

[16] Ellis, J (2010) "Undeclared dangerous goods – Risk Implications for Maritime Transport" *WMU Journal of Maritime Affairs 9(1) 5-27, pg. 6*

(US law). Again the duties under these rules will be compared to that of the Rotterdam system, in order to comprehend the value (if any) of retaining the current approach to the shipment of dangerous goods;

4) To investigate the liabilities arising out of the breach of duties of the parties under the three systems, i.e. the Hague-Visby, Hamburg and Rotterdam Rules, in relation to the shipment of dangerous goods. The liabilities of this system will then be analysed in relation to the HNS Convention (International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea) to identify whether the possibility of developing a stand-alone regime in regards to the shipment of dangerous goods is a suitable alternative. It is important to note that

> ***by 2009, the HNS Convention had still not entered into force, due to an insufficient number of ratifications. A second International Conference, held in April 2010, adopted a Protocol to the HNS Convention (2010 HNS Protocol), that was designed to address practical problems that had prevented many States from ratifying the original Convention***[17]; and

5) To critically examine the current regime and propose (if necessary) reform to the current approach to the shipment of dangerous goods by the sea.

1.1.2 RATIONALE:

As identified in the overview, the issue of breach and circumvention of the technical standards under the IMDG is compounded by the fact that national laws have different definitions of what constitutes a dangerous good, even though the IMDG should have a harmonising effect through its technical standards and classification[18]. This means that international dangerous goods regulations and standards, such as the IMDG, are only as effective as their application within a specified jurisdiction. The following research is going to explore the regulation of dangerous goods by the sea by the way of the various regulations that are present. In addition this research will identify whether there is (or should be) an all-encompassing set of rules for general carriage

[17] IMO (online) "HNS Convention", Available online at: http://www.imo.org/OurWork/Legal/HNS/Pages/HNSConvention.aspx
[18] IMO (1990) "The Safe Transportation of Dangerous, Hazardous and Harmful Cargoes by Sea" *Europ. Transp L 25(747);*

of goods by the sea, which will provide the harmonising benchmark to make the IMDG regulations effective. However, as there is a continued differentiation of general cargo ships from that of hazardous carriers in the marine transport industry, this opens up the possibility of developing a single international standard for the carriage of dangerous goods. The indication is that this single standard will cover all aspects of shipment from bills of lading, duties of the shipper and carrier and the liability regime. Therefore, this supports the argument that there may be need for an incorporation of a set of international rules, wholly dedicated to the shipment of dangerous goods, to create a legal regime that is *fit for purpose*.

Hence, the rationale for supporting the argument that there needs to be a separate legal regime for the shipment of dangerous goods by sea can be identified in the evolution of maritime transport and its growing importance in the modern commercial regime. In addition, there is a greater understanding of the environmental effects of shipping; as well as the release of dangerous goods on the marine ecosystem. The combination of these factors creates a persuasive argument that there needs to be a separate regime. Thus this research will explore the impact of the current legal regimes in order to identify if a separate legal regime is necessary.

1.1.3 METHODOLOGY:

The shipment of dangerous goods by the sea is a broad and essential topic, which has global implications, both in the commercial and environmental legal regimes. As the argument of this research is centred on whether a separate legal standard is needed for the maritime transportation of dangerous goods, it will undertake a comparative methodology. The justification for taking comparative research is to illustrate whether there is a need for harmonisation and separation of the rules in this area. This examination will begin its focus through a comparison of US and English law. The rationale for choosing these two regimes is because the duties of the shipper and carrier in the US are governed by the Hamburg Rules; whereas English law is governed by the Hague-Visby Rules. This comparative approach will become increasingly significant, because the comparison of English and US law will highlight the different applications of the IMDG under the international carriage of goods by the sea treaties.

Hence, this discussion will consider the Rotterdam Rules [RR], in relation to the US and English legal approaches. The purpose of this exploration is to identify whether the RR provides a better solution to the shipment of dangerous goods by the sea; rather than forming a completely separate convention of harmonisation in this area. Hence, the critical analysis of the Rotterdam Rules will consider:

1) Have the RR brought a multimodal approach, which will create a more comprehensive approach to the door-to-door shipment of dangerous goods; and
2) Do the RR provide a modern approach to the duties of shippers and carriers in relation to the shipment of dangerous goods.

It is crucial to note that the examination of the Rotterdam Rules is important, because the aforementioned recommendations of support from the EU may result in English law incorporating these rules[19]. This provides a strong indication of the desire to harmonise the shipment of general goods. Throughout this research the following issues will test the effectiveness of the current legal regime; undeclared goods; and why shippers (and in some cases carriers) continue to fail to declare the shipping of dangerous goods. In fact, one could argue that the discord can only be resolved with the implementation of a body of law that relates wholly to the area of dangerous goods. This supports the on-going comparative approach between the US and English legal approaches in order to determine whether this disjointed approach to dangerous goods is sufficient, or whether there is a better option.

The purpose of using a comparative approach on this subject matter is to ensure a strong critical element of the subject matter. In comparing the US, English and international standards will allow the researcher to:

1) Consider if there is a better set of rules in relation to the duties of the shippers and carriers of dangerous goods within the national or international regulations;

[19] European Parliament (2011) "Rotterdam Rules – European Parliament resolution on strategic goals and recommendations for the EU´s maritime transport policy until 2018" 2011/C 81 E/03, para 11

2) Determine how these national rules fit with the Dangerous Goods Regulations; and

3) Raise a number of questions in the need for a more cohesive approach, which means the question of an overall system of harmonisation must be considered.

Although the Rotterdam Rules may not be the best option[20], this comparative research will illustrate that there is a strong argument for a harmonised approach. This is because the harmonised approach will ensure that there is same approach to liability and breach under the IMDG standards to the shipment of dangerous goods by the sea.

1.1.4 STRUCTURE OF THE RESEARCH:

This research consists of four parts, which mirror the objectives that are outlined above. Part 2 will explore the meaning of dangerous goods under the Hague-Visby Rules (English law), Hamburg Rules (US law) and International Regulations (IMDG), which will provide a strong examination to the differentiation in the meaning of *dangerous*, which leads to confusion and the non-declaration of potentially hazardous goods. Part 3 will explore the various international regulations and standards in regards to the shipment of dangerous goods by the sea. The purpose of this chapter is to provide a backdrop to the comparative approach throughout the remainder of the research. Part 4 will examine the duties and liabilities of the shipper and the carrier in relation to the shipment of dangerous goods under the Hague-Visby Rules (English law) and the Hamburg Rules (US law). Finally, Part 5 will critically examine the current regime and propose (if necessary) reform to the current approach to the shipment of dangerous goods by the sea. (See below)

[20] Hailey, R (2009) "Brussels to draft own equivalent to divisive Rotterdam Rules: Convention not seen as being conducive to EU's Wider Policy Objectives" 26th June 2009, Available online at: http://www.rotterdamrules.com/pdf/Brussels-to-draft-own-equivalent-to-divisive-Rotterdam-Rules.pdf

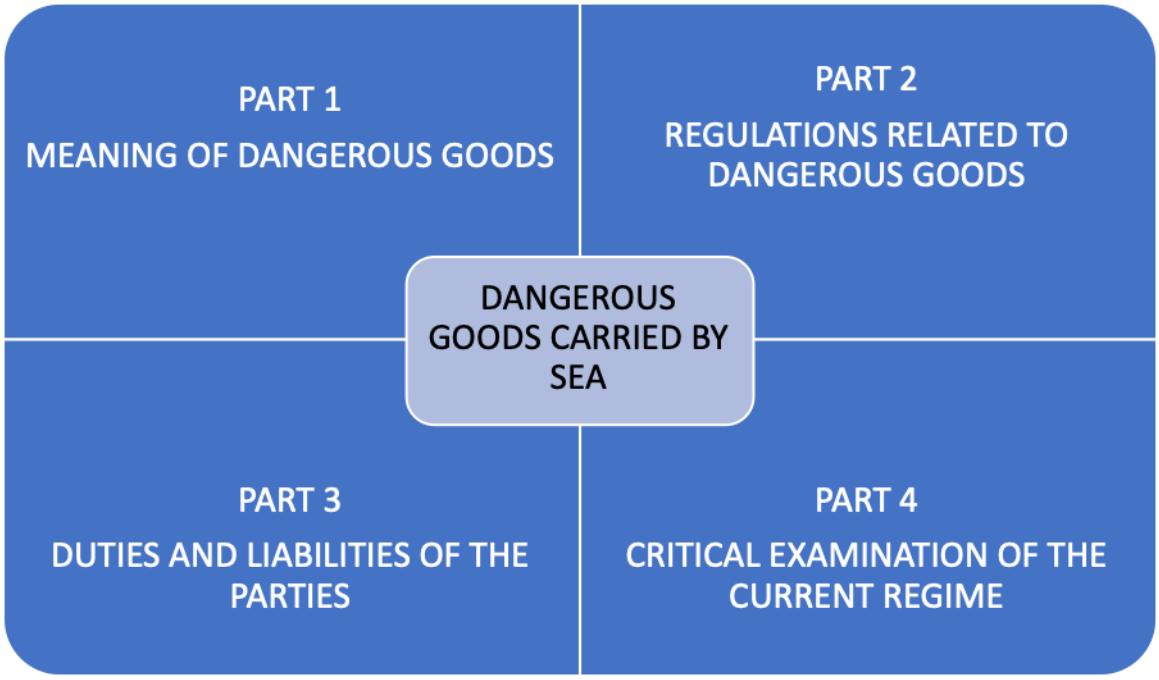

Figure 3: The Frame of Reference – key research areas

Source: Compiled by author

PART TWO: MEANING OF DANGEROUS GOODS

2.1 DEFINITION OF DANGEROUS GOODS IN RULES OF LAW

The purpose of this chapter is to explore the meaning of dangerous goods under the Hague-Visby Rules (English law), Hamburg Rules (US law) and International Regulations (IMDG). These meanings will be compared against the backdrop of the most recent Rotterdam Rules. The first section will explore the definition of dangerous goods in regards to English, US and the IMDG will be critically examined to identify the amount of clarity there is in regards to what is meant by the label *dangerous*. This will then be followed by a brief examination of each of the classes under the IMDG code. This examination will then be summarised to consider if the classification of goods under the IMDG code is sufficient to identify what constitutes as a dangerous good. As Guner-Ozbeck identifies

> ***From the point of view of the carrier, dangerous goods are goods which pose unforeseeable hazards to the ship and to other cargo […] According to trade and industry, dangerous goods are that about which something must be known to prevent danger***[21]***.***

A concern that will be identified with the IMDG code is that it is a technical standard. The implication is it does not have the broad, encompassing flexibility of a legal definition that can evolve. Therefore, the Rotterdam Rules' meaning of a dangerous good is considered, as an international standard.

[21] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 60; Tiberg (1978) "Legal Survey" in Gronfers (ed) (1978) *Damage from Goods* MLA at pp 9-11; Wilford, Coghlin and Kimball (2003) *Time Charters 4th Ed*, LLP pg. 179

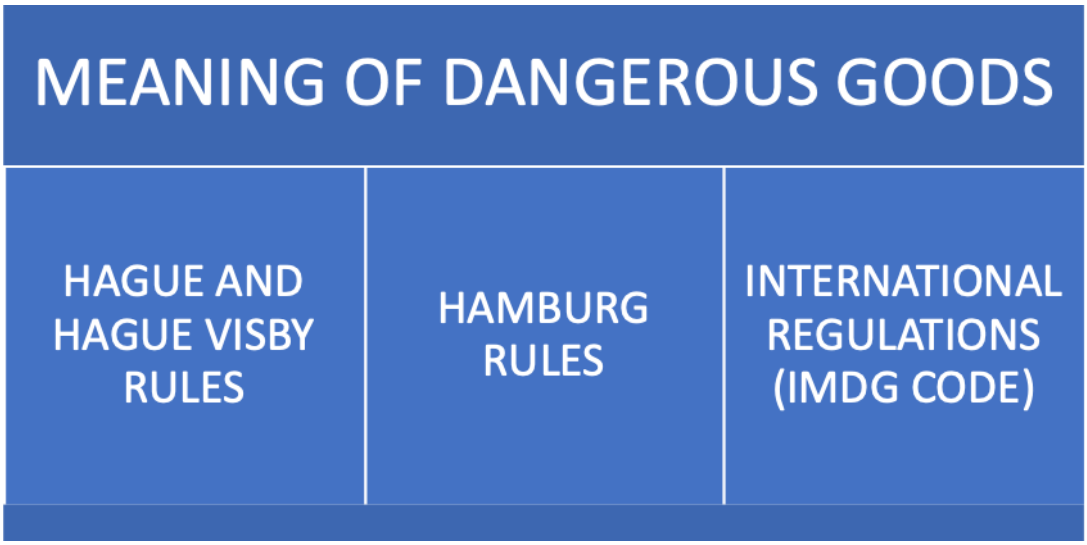

Figure 4: Dangerous Goods under HHVR, Hamburg Rules and International Regulations

Source: Compiled by author

2.1.1 IN ENGLISH LAW

The definition of a dangerous good in English law is determined by the application of the shipper's obligation not to ship dangerous goods under the Hague-Visby Rules[22]. Albeit it is essential to stress that there is no definition provided by the HVR or

> ***by the common law […] Two alternative approaches to the concept are possible. On the one hand, a traditional view may be to regard dangerous goods as a category the extent of which is developed by precedent or statutory regulation […] Such an attempt is to be found in s. 446 of the Merchant Shipping Act 1894 […] The most recent example of such a list is provided by regulation 1(2) of the Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997***[23]***.***

The problem with this approach is that it fails to understand the evolving nature of what is constituted as dangerous; whereby there will have to be a continual revitalising of the list. Also this approach fails to understand that there are goods that may not be an inherently dangerous

[22] Wilson, J (2008) *Carriage of Goods by Sea 6th Edition*, Longman, pg. 32
[23] Ibid.

good, but can pose a hazard in shipment through circumstance[24]. Another important aspect of the English approach is that the contract can determine what is dangerous; therefore not to be loaded onto the ship. The case of the *Micada Compania Naviera S.A. v. Texim (The Agios Nicolas)*[25] had a contract that states "no live stock nor injurious, inflammable or dangerous goods (such as acids, explosives, calcium carbide, ferro silicon, naphtha, motor spirit, tar, or any of their products) to be shipped". The cargo breached this clause, because iron ore concentrate and not iron ore was loaded; whereby the former fell within the prohibitive clause because it required specialised fitting boards. The result was damage and loss. However, the shipper was held liable because the proper manifest was not identified, there was a prohibition clause in the contract and the carrier was not notified of the "real" nature of the cargo[26]. As Donaldson J. held that the cargo was "a wet wolf in a dry sheep's clothing": there was nothing to indicate that the carrier was adequately notified creating a significantly hazardous situation.

The case of *Ministry of Food v. Lamport & Holt*[27] *(Ministry of Food Case)* identified that goods may be dangerous even though they constitute no risk to the vessel. The reason for this ruling was that when an innocuous substance, such as grain, is subjected to certain circumstances it can become a danger. The facts in this case were that there was a maize cargo in the lower hold and a tallow cargo in the tween deck directly over the maize. The result was that as the maize was a loose, bulk consignment on which the tallow leaked. The carriers were exempted from liability of the damage to the maize as reasonable steps were taken to prevent leakage, because the shippers had not adequately informed the carriers of the nature of tallow. In addition, sellers held that the shippers were liable for the loss that the carrier had maintained due to the leakage and the shippers failure to inform adequately of the nature of tallow[28].

In the *Ministry of Food Case* it was identified that when grain is shipped in bulk it can become dangerous if it is allowed to overheat; therefore special preventative measure must be put in place. Albeit it is required that the shipper advises of the dangers if linked to the *inherent nature*

[24] Ibid.
[25] *Micada Compania Naviera S.A. v. Texim (The Agios Nicolas)* [1968] 2 Lloyd's Rep. 57
[26] Ibid.
[27] *Ministry of Food v Lamport & Holt [1952] 2 Lloyd's Rep*
[28] Ibid.

of the substance, especially if there is an increased probability of hazard through a combination of factors that the shipper is aware of. On the other hand, if the danger is related to the escape of the substance and is fully aware of the nature of the substance then knowledge of the danger is linked to the carrier[29]. It is important to note that the *Ministry of Food Case* indicated that the carrier must be adequately informed of the nature of the substance, in order to know when the substance becomes dangerous.

The case of *The Athanasia Comninos*[30] has developed the modern test of identifying when a good is dangerous, which includes more than the dangers posed by the *inherent nature* of the substance. The *Athanasia Comninos* re-confirmed the approach in *Mitchell Coutts v. Steel*[31] which held that goods may also be *legally dangerous*. In other words, when the goods are in a legal state that can result in the delay, detention or seizure of a vessel then this constitutes as *dangerous* under English law[32]. This is supported by the Hague-Visby Rules Article 3(8) and Article 4(3), which ensures that the shipper's and the carrier's obligations are not reduced below that of the HVR[33]. These rules include any act that can result in the delay, detention or seizure of a vessel or cargo.

The facts in the case of the *Athanasia Comnino* are that the ship was carrying a shipment of coal, in which danger can be avoided if the carrier takes reasonable steps to mitigate the emissions of methane. In this case, the notification of the object of the shipment was not in question, as the carrier knew it was coal and the emission of methane is industry known hazard. Rather, the question was whether coal is classed as an *inherently dangerous substance*, because it was not listed in the regulations as a dangerous subject[34]. As the following section on the US approach

[29] Jackson, D.C., *Dangerous cargo: a legal overview*, Maritime Movement of Dangerous Cargoes—Public Regulation and Private Liability", Papers of a one day seminar, Southampton University 11th September 1981 at A3
[30] *The Athanasia Comninos [1990] 1 Lloyds Rep 277 at 282; Westchester Fire Insurance Co v Buffalo Salvage Co [1941] AMC 1601*
[31] *Mitchell Coutts v Steel [1916] 2 KB 610*
[32] Robert Gay, Chapter 6 *Dangerous cargo and "legally dangerous" cargo*, in D. Rhidian Thomas (editor), *The Evolving Law and Practice of Voyage Charterparties*, (2009) Informa—Maritime and Professional, pg. 120; Cooke, (2007) *Voyage Charters*, 3rd edition Informa, London, p. 162; Baughen, *Obligations of the shipper to the carrier*, (2008)14 JIML, pg. 557
[33] *Effort Shipping Co Ltd v Linden Management S.A.* (The Giannis NK) [1998] 1 All ER. 495 (HL); Robert, G (2009), *Dangerous cargo and "legally dangerous" cargo*, in D. Rhidian Thomas (editor), *The Evolving Law and Practice of Voyage Charterparties*, Informa—Maritime and Professional, pg. 120
[34] *The Athanasia Comninos [1990] 1 Lloyds Rep 277 at 277*

will illustrate, the question of listing of dangerous goods on regulations is far more prevalent under the Hamburg Rules. However, in the case of the English application of the Hague-Visby Rules, labelling and regulatory lists are not the primary concern. Rather, the nature of the substance and the circumstances it was placed in during the voyage. Mustill J. identified

> ***It is impossible to categorise coal as either inherently safe or dangerous, the carrier was liable for the damage because in contracting to carry goods which possessed the attributes of the goods as described including the capacity to create danger***[35]***.***

The opinion of Mustill J. in the *The Athanasia Comninos*[36] is essential to understanding the approach taken to the definition of what is dangerous.

Mustill J. held that

> ***To find a general test that will permit the identification of those cargoes whose shipment is in breach of contract in absence of specific warning as to their characteristics. In my view, it is essential when looking for such a test to remember that we are here concerned, not with the labelling in the abstract of goods as "dangerous" or "safe" but with the distribution of risk for the consequences of a dangerous situation arising during the voyage. The character of the goods does, of course, play a crucial part in creating such a situation. But it is not the only factor. Equally important are the knowledge of the shipowner as to the characteristics of the goods, and the care with which he carries them in the light of that knowledge***[37]***.***

Therefore, the English approach to the meaning of dangerous goods revolves on a three prong test:

1) The inherent nature of the good, i.e. is it inherently a dangerous good as identified by a list;
2) Has the Shipper declared the nature of the good, the way it is packaged and any other pertinent information to ensure safe shipment; and

[35] Ibid.
[36] *The Athanasia Comninos [1990] 1 Lloyds Rep 277 at 282; Westchester Fire Insurance Co v Buffalo Salvage Co [1941] AMC 1601*
[37] *The Athanasia Comninos [1990] 1 Lloyds Rep 277 at 282;*

3) How has the carrier treated the good, i.e. have safety standards been put in place and do these standards meet the *reasonable expectations* given the information provided by the shipper.

These three elements are the primary determinants in whether the good should be classed as dangerous or not. The liability for any harm that has occurred due to a dangerous good is determined on these three factors and if the shipper and carrier have taken due diligence in their obligations under the Hague-Visby Rules, as incorporated by the Carriage of Goods by the Sea Act 1992 (COGSA 1992). The application of the *The Athanasia Comninos*[38] can be identified in the case of *General Feeds Inc. v. Burnham Shipping Corporation (The Amphion)*[39]. In this case bill of lading indicated that *general feed* was in the cargo; which included *fishmeal*. This distinction between *general feed* and *fishmeal* is essential, because bagged fishmeal is known to have the potential to heat up and become flammable. This means that special precautions are necessary to reduce the hazard, i.e. an anti-oxidant treatment[40]. The carrier was notified that the cargo carried was *fishmeal*; however the issue that the case revolved upon was that the fishmeal was described as *antioxidant treated*. The result of this is that the carrier did not take any further action to ensure that the cargo was treated, which meant when the cargo was being unloaded a fire started and the cargo was lost. In the proceedings of the arbitration it was identified that in fact the fishmeal was not treated. Thus, Evan J. held that the carriers could only be held liable if the fishmeal was properly treated. In this case, as the cargo was not properly treated, the shippers were liable for breach of contract[41]. The rationale for this argument applied the case of the *The Athanasia Comninos,* in line with the requirements under Article 3(8) and Article 4(3) of the Hague –Visby Rules. This meant that the shippers were liable for the loss, as well as breach of contract.

[38] *The Athanasia Comninos [1990] 1 Lloyds Rep 277 at 282; Westchester Fire Insurance Co v Buffalo Salvage Co [1941] AMC 1601*
[39] *General Feeds Inc. v. Burnham Shipping Corporation (The Amphion)* [1991] 2 Lloyd's Rep.
[40] Fishmeal is a Class 9 Hazard under the IMDG Code.
[41] Ibid; Robert, G (2009) ,*Dangerous cargo and "legally dangerous" cargo*, in D. Rhidian Thomas (editor), *The Evolving Law and Practice of Voyage Charterparties*, Informa—Maritime and Professional, pg. 120

The concept of dangerous has taken a very broad approach in English law, which relates directly back to the obligations under the HVR. This is because in the cases of *Mitchell Coutts v. Steel* and *The Donald*[42] it was identified that the term dangerous also refers to unlawful or contraband goods. The evolution of the meaning of *dangerousness* has been developed under common law principles, which refer to the evolving international standards such as the HVR. Even so, this interpretation is highly flexible[43], which is one of the primary reasons that the HVR was implemented into COGSA 1992. As mentioned earlier, the implied position of the HVR is that the shipper will not ship dangerous cargo, except in the circumstances that the shipper has express or constructive knowledge that the shipment consisted of dangerous goods[44]. The rationale for this approach is that it meant to force the shipper to declare the nature of goods; otherwise they are in breach of contract and lose all recourse to loss or damage of the cargo. The problem with this contractual approach is that it does not deal with the modern issues of dangerous goods, which has accelerated with the increased transport of dangerous goods by the sea.

Albeit the English approach does remain one of the most flexible approaches to determining danger, it however is purely based on contractual liability. This is because the rationale in these cases is whether the carrier is facing peril to his livelihood and liberty, which "is precisely analogous to the shipment of a dangerous cargo which might cause the destruction of the ship"[45]. The nature of what constitutes as a dangerous good is much broader than the classifications under the IMDG. The implication of this is that this approach provides a much more flexible system, which ensures that the carrier is protected from the shipper misleading them in respect to the nature of the goods. In addition, if there is full disclosure of the nature of the goods by the shipper to the carrier, then the liability under meaning of danger shifts to the carrier to prevent if shipment of the goods is accepted. The effect of such an approach is that as the courts

[42] *Mitchell Coutts v Steel [1916] 2 KB 610; The Donald [1920] P 56*
[43] I H Olebaken. 'Background Paper on Shippers Obligations and Liabilities' (2007-2008) CMI Yearbook, 300. Available [Online] at: http://www.cmi2008athens.gr/sub3.7pdf; McKendrick, E (2010) *Goode on Commercial Law 4th Edition*, Penguin, pg. 952
[44] *Brass v Maitland*. [1856] 6 E & B 470
[45] *Mitchell Coutts v Steel [1916] 2 KB 610 at 614*

> ***Focus on the situation in which the damage occurred and they seem to be more concerned with dangerous situation rather than dangerous nature [such as the IMDG]. Therefore, the word dangerous extends beyond matters likely to cause physical loss of or harm to the ship[46]; crew[47]; other cargo[48] or cleaning expenses and delay[49], and covers all features of the goods which might lead to the detention of the ship[50].***

Albeit, it does not adequately deal with third party and intangible harms to the environment; hence it is on such basis that a separate single convention in regards to dangerous goods shipments needs to be developed.

2.1.2 IN AMERICAN LAW

The same issue lies with the American (US) approach to dangerous goods, which is determined by the Hamburg Rules[51]. The US law is governed by the Carriage of Goods by the Sea Act 1932 (COGSA 1932), which is based on the original Hague Rules. However, COGSA 1932 has evolved with these rules to the implementation of the Hamburg Rules; even so there are strong arguments for reform[52]. Even as the US common law has developed into a quasi-implementation of the Hamburg Rules through amendments and the statutory system, there remains some discord. This is because the US judgements in the relation to COGSA 1932 have created a system that has resulted in unique doctrines that do not necessarily fit with the harmonised approach[53]. As Sturley identifies

> ***The draftsmen of the early 1920s did not anticipate the container revolution, let alone electronic commerce, so COGSA is even more outdated than the more modern international regimes that most of the world's commercial powers and most U.S. trading partners have already adopted. The benefits of***

[46] *Mediterranean Freight Services ltd v BP Oil International Ltd (The Fiona) [1994] 2 Lloyds Rep 506; The "Kapitan Sakharov" [2000] 2 Lloyds Rep 255; The "Amphion" [1991] Lloyds Rep 101*
[47] *Bamfield v Goole and Sheffield Transport Company [1910] 2 KB 94*
[48] *Brass v Maitland (1856) 26 LJQB 49*
[49]*Deutsche Ost-Afrika v Legent [1998] 2 Lloyds Rep 71; IMDG Code Class 1.1; Losinjska Plovidba v Transco Overseas Ltd (The Orjula) [1995] 2 Lloyds Rep 395*
[50] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 62; Treitel and Reynolds (2005) *Carver on Bills of Lading 2nd Edition*, Sweet and Maxwell, pg. 512
[51] Tetley [1979] "The Hamburg Rules—a commentary" *[1979] L.M.C.L.Q. 1*
[52] Sturley, M (2009) "Modernizing and Reforming US Maritime Law: The Impact of the Rotterdam Rules in the United States" *Texas International Law Journal 44(426)*, 429-30
[53] Ibid.

> ***international uniformity in this field are well known and widely accepted, but the need to harmonize U.S. law with the rest of the world's is particularly acute. Unique U.S. doctrines have developed over the years with the result that COGSA as applied by the U.S. courts not only differs from the more modern international regimes, but is also out of step even with the international understanding of carriage of goods by the sea*** [54]***.***

For example in the case of *Vimar Sequros y Reaseguros, S.A. v. M/V Sky Reefer*[55]identifies that COGSA is modelled on the Hague Rules, which have evolved with international harmonisation. Even so, it is stressed that this modelling has required that implementation is unique to the US model of law, which is why in the case of *Robert C. Herd & Co. v. Krawill Mach. Corp.*[56] it was argued that COGSA 1932 was lifted *bodily out of the Hague Rules*. Therefore, the US system seems to be a mishmash of laws and developments, which stems from the Hague Rules, reforms such as the Hamburg Rules and the unique US approach.

This mixture of laws within US jurisprudence under COGSA 1932 has resulted in the carriage of goods by sea regulations and common law to follow the extensions under the international regime from the Hague to Hamburg Rules, which includes the extension of the tackle-to-tackle approach to that of port-to-port[57]. The implication is the US approach to carriage of goods by sea is to evolve with international regulation, which means that the evolutionary approach of the Rotterdam Rules may be easily adopted. This is partly due to the choice of law approach in the US, which means the freedom of contract allows the parties to adopt the most appropriate regime to govern the contract[58]. This means that to make the US system most favourable, the evolution of the carriage of goods by sea jurisprudence has been necessary. This is pretty much the nature of the Hamburg Rules, which merely extends the definition and application of laws under the Hague-Visby approach. In essence, the meaning and approach remains the same under the Hamburg Rules; however there is a requirement for the shipper to:

[54] Ibid.
[55] *Vimar Sequros y Reaseguros, S.A. v. M/V Sky Reefer, (1995) 515 U.S. 528,*
[56] *Robert C. Herd & Co. v. Krawill Mach. Corp. (1959), 359 U.S. 297, 301*
[57]Sturley, M (2006) "Freedom of Contract and the Ironic Story of Section 7 of the Carriage of Goods by Sea Act*", 4 Benedict's Mar. Bull. 201, 202–08*
[58] Ibid, pg. 203

1) Mark or label the goods to indicate they are dangerous (Article 13(1) of the Hamburg Rules);
2) Inform the carrier of their dangerous character and necessary precautions to prevent harm (Article 13(2) of the Hamburg Rules); and
3) The bill of lading must include an express statement that they are dangerous (Article 15(1) of the Hamburg Rules.

Thus, the definition of dangerous goods has not been defined any further than that of the Hague-Visby Rules. Instead, the test that was identified through the common law in identifying a meaning has been put into a box-ticking approach. The problem with this approach is that it has narrowed the approach to that of the *dangerous nature of the goods*, as opposed to the *dangerous situation* of the English Courts. This means that goods that are identifiable in the 49 CFR 171-80, 46 CFR 146-154 and the IMDG code are *deemed to be dangerous*[59]. Even so, the case law has pointed to the agreement with the English courts that "bulk cargoes creating stability dangers are often considered in dangerous cargoes cases"[60]. Hence, this results in goods that are not inherently dangerous being identified as dangerous, due to the given circumstances[61].The implication of this is that if the shipper is aware of the circumstances that the carrier is fully aware and warned, as per the case of *Narcissus Shipping Corp v. Armada Reefers Ltd*[62]. The case of *Suncrest Corp v. M/V Jennifer*[63] highlights the fact that it may be impossible for the shipper and/or carrier to know the potential dangers of the cargo. In the *Narcissus* case the shipment consisted a cargo of sugar, which shifted due to degradation and causing the vessel to develop a severe list. Albeit, liability was difficult to determine because this was the first time that the "maritime or scientific community learned of the thixotropic properties of raw sugar"[64]. As the basis of the Hamburg Rules is based on constructive knowledge it is only in subsequent cases that the requirement of notice is obligatory on the shipper. Even so, the *Nord Amerika*[65]

[59] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 76
[60] Ibid, pg. 76; *Pitria Star Navigation Co v Monsanto Co (1984) WL 3636 (ED La 1984); The Stylianos Restis [1974] AMC 2343 (SDNY 1972)*
[61] *Narcissus Shipping Corp v Armada Reefers Ltd 950 F Supp 1129*
[62] Ibid.
[63] *Suncrest Corp v M/V Jennifer 455 F Supp 371*
[64] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 77; *The Nord Amerika [1931] AMC 1637*
[65] *The Nord Amerika [1931] AMC 1637*

identified that "although copper concentrate *per se* is not dangerous, such colloidal states is both dangerous and injurious"[66]. The implication of this case is that an onerous liability is imposed on the shipper, because requisite knowledge is necessary to identify the good as dangerous. This argument of requisite knowledge was supported in the case of *Westchester Fire Ins Co* where it was held that although "iron turnings, borings and filings when in large bulk, have a fire hazard as they oxidise spontaneously if wet… The risk is not sufficient to cause material to be classed as inflammable… and [the] material is accepted by steamship companies"[67]. This meant that the courts identified that as the goods did not present the danger of being wet it was held that the goods were not dangerous.

Therefore, the American courts in much the same way as the English courts have an evolving standard of what is *dangerous*. Even so, the concept of *situation* is greatly restricted to *situation plus inherent nature of the physical properties of the goods and the possible damage to the ship.* From this consideration, the legal dangers of illegal or contraband goods are not considered under the Hamburg Rules. It is on this point that one could argue that the Hague-Visby Rules provide a far more flexible approach to the concept of dangerous. However, the Hamburg approach could be identified as providing a greater degree of certainty by limiting the definition to the inherent nature of the good plus the situation. This approach is far more conducive to the IMDG and the listing of dangerous goods on their technical specification.

2.2 MEANING OF DANGEROUS GOODS IN IMDG CODE

The primary issue with the IMDG Code is that it is purely a box-ticking approach to identify internationally recognised dangerous goods and how they need to be labelled. The implication of this is that as long as the IMDG Code's labelling procedure is followed, in respect to the listed goods, then the shipper's duties and liabilities are discharged as the carrier has express or constructive notice.

[66] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 77
[67] Ibid, pg. 78

2.2.1 CLASSES OF DANGEROUS GOODS IN IMDG CODE

The IMDG Code has been implemented in both the US and English legal regimes; therefore this section will briefly identify the classes of the code and the labelling requirements. This will provide a backdrop to the remaining research, especially in regards to a box-ticking approach which may fail to provide an effective system of protection as it focuses only on the *inherent nature* of the good.

Figure 5. Classes of Dangerous Goods in the IMDG Code

Source: Compiled by author

CLASS 1: EXPLOSIVES

There are six classes of explosives, which are;

1) "Substances and articles which have a mass explosion hazard" (Class 1.1);
2) "Substances and articles which have a projection hazard but not a mass explosion hazard" (Class 1.2);
3) "Substances and articles which have a fire hazard and minor blast/projection hazard" (Class 1.3);
4) "Substances and articles which present no significant hazard" (Class 1.4);
5) "Insensitive substances which have a mass explosion hazard", hence very unlikely to explode in a transport situation (Class 1.5); and
6) "Insensitive articles which do not have a mass explosion hazard", i.e. goods pose no risk at all (Class 1.6).

The packaging and labelling of these goods must meet the specified standards in the IMDG code and be clearly marked with the class of explosive[68]. As this class illustrates the most dangerous goods are labelled Class 1.1 through to the safest goods labelled Class 1.6, which highlights a hierarchical approach that is clear and concise to implement into the various legal regimes.

Box 1. IMDG Class 1 - Explosives

Class 1.1 – Substances and articles which have a mass explosion hazard

[68] IMO (1990) "The Safe Transportation of Dangerous, Hazardous and Harmful Cargoes by Sea" *Europ. Transp L 25(747);*

Class 1.2 - Substances and articles which have a projection hazard but not a mass explosion hazard

Class 1.3 – Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard

Class 1.4 - Substances and articles which present no significant hazard

Class 1.5 – Very insensitive substances which have a mass explosion hazard

Class 1.6 – Extremely insensitive articles which do not have a mass explosion hazard

Source: IMDG, Volume II , International Maritime Organization, London, 2008

TABLE 1: Examples of Class 1 IMDG substances.

CLASS 1 – EXPLOSIVES	EXAMPLES	UN No.	PROPERTIES
DIVISION 1.1 – EXPLOSIVES WITH A MASS EXPLOSION HAZARD	BLACK POWDER (GUNPOWDER), COMPRESSED OR BLACK POWDER (GUN POWDER) IN PELLETS	0028	A SUBSTANCE WHICH IS VERY SENSITIVE TO SPARKS, ELECTROSTATIC DISCHARGES AND FRICTION.
DIVISION 1.2 – EXPLOSIVES WITH A PROJECTION HAZARD	ARTICLES, PYROPHORIC	0380	ARTICLES WHICH CONTAIN A PYROPHORIC SUBSTANCE (CAPABLE OF SPONTANEOUS IGNITION WHEN EXPOSED TO AIR) AND AN EXPLOSIVE SUBSTANCE OR COMPONENT. THE TERM EXCLUDES ARTICLES CONTAINING WHITE PHOSPHORUS.
DIVISION 1.3 – EXPLOSIVES WITH PREDOMINANTLY A FIRE HAZARD	FIREWORKS	0335	PYROTECHNIC ARTICLES DESIGNED FOR ENTERTAINMENT
DIVISION 1.4 – EXPLOSIVES WITH NO SIGNIFICANT BLAST HAZARD	LIGHTERS, FUSE	0131	ARTICLES OF VARIOUS DESIGN ACTUATED BY FRICTION, PERCUSSION OR ELECTRICITY AND USED TO IGNITE SAFETY FUSE.
DIVISION 1.5 – VERY INSENSITIVE SUBSTANCES WHICH HAVE A MASS EXPLOSION HAZARD	EXPLOSIVES, BLASTING, TYPE E	O332	THE TERM INCLUDES EXPLOSIVES, EMULSION; EXPLOSIVES, SLURRY; AND EXPLOSIVES, WATERGEL.
DIVISION 1.6 – EXTREMELY INSENSITIVE ARTICLES WHICH DO NOT HAVE A MASS EXPLOSION HAZARD	ARTICLES, EXPLOSIVES, EXTREMELY INSENSITIVE	0486	ARTICLES THAT CONTAIN ONLY EXTREMELY INSENSITIVE DETONATING SUBSTANCES AND WHICH DEMONSTRATE A NEGLIGIBLE PROBABILITY OF ACCEDENTAL INITIATION OR PROPAGATION (UNDER NORMAL CONDITIONS OF TRANSPORT) AND WHICH HAVE PASSED UN TEST S.7

Source: IMDG, Volume II , International Maritime Organization, London, 2008

CLASS 2: GASES

The labelling and classification of gases is very similar to that of explosives; however there are only three classes, which are;

1) Flammable gases, which are the most volatile and prone to explosion (Class 2.1);
2) Non-flammable, non-poisonous gases, which is the safest class; therefore it is at this point that the hierarchical approach is departed from (Class 2.1); and
3) Poisonous gases, which are gases that are hazardous only on escape (Class 2.3).

The formation of class 2 labelling is more specified to include the nature of the gas. This ensures that the shipper and the carrier take the necessary "packing, marking, stowage, segregation and fire precautions"[69]. The indication is that the more specified the good the greater the requirements to ensure safe shipment is identified under the IMO.

Box 2. IMDG Class 2 - Gases

Class 2.1 - Flammable gas

Class 2.2 - Non-Flammable gas

[69] IMO (1997) Focus on IMO—IMO and dangerous goods at sea" May 1996, http://www5.imo.org/SharePoint/blastDataOnly.asp/data_id=7999/IMDGdangerousgoodsfocus1997.pdf

Class 2.3 - Toxic gas

TABLE 2: Examples of Class 2 IMDG substances

CLASS 2 – GASES	EXAMPLE	UN No.	PROPERTIES
CLASS 2.1 – FLAMMABLE GASES	ACETYLENE, DISSOLVED	1001	FLAMMABLE GAS WITH SLIGHT ODOUR. LIGHTER THAN AIR (0.907)
	BROMOTRI-FLOUROETHYLENE	2419	LIQUIFIED, FLAMMABLE, COLOURLESS GAS. MUCH HEAVIER THAN AIR BOILING POINT: -3 C
CLASS 2.2 – NON-FLAMMABLE GASES	AIR, REFRIGERATED LIQUID	1003	LIQUIFIED, NON-FLAMMABLE GAS. STRONG OXIDIZING AGENT. MIXTURE OF LIQUID AIR WITH COMBUSTIBLE MATERIALS OR OILS MAY EXPLODE MAY IGNITE ORGANIC MATERIALS
	ARGON, COMPRESSED	1006	INERT GAS HEAVIER THAN AIR (1.4)
CLASS 2.3 – POISON GASES	OIL GAS, COMPRESSED	1071	FLAMMABLE, TOXIC GAS. A MIXTURE OF HYDROCARBONS AND CARBON MONOXIDE
	NITROSYLCHLORIDE	1069	NON-FLAMMABLE, TOXIC, YELLOW GAS WITH AN IRRITATING ODOUR. CORROSIVE TO STEEL MUCH HEAVIER THAN AIR (2.3)

Source: International Maritime Dangerous Goods Code (IMDG), Volume II , International Maritime Organization, London, 2008 (Table 2 & Box 2)

CLASS 3: FLAMMABLE LIQUIDS

As indicated in the case of Class 2 Flammable gases, the identification of Flammable is based on their flashpoints, which are divided into three categories:

1) Low Flashpoint, (Class 3.1)
2) Intermediate Flashpoint (Class 3.2)
3) High flashpoint (Class 3.3)

Therefore, this section identifies the exact liquids, labelling requirements and safety requirements needed for each of the flashpoints.

Box 3. IMDG Class 3 - Flammable Liquids

Source: International Maritime Dangerous Goods Code (IMDG), Volume II , International Maritime Organization, London, 2008

TABLE 3: Examples of Class 3 IMDG substances

CLASS 3 – FLAMMABLE LIQUIDS	EXAMPLES	UN No.	PROPERTIES
CLASS 3.1 – LOW FLASHPOINT GROUP **LIQUIDS HAVING A FLASHPOINT BELOW -18 C (0 F)**	PRINTING INK, FLAMMABLE	1210	FLUID OR VISCOUS LIQUID CONTAINING COLOURING MATTER IN SOLUTION OR SUSPENSION. MISCIBILITY WITH WATER DEPENDS UPON THE SOLVENT.
	ISOHEXENES	2288	COLOURLESS LIQUIDS. BOILING RANGE: 54 C TO 69 C IMMISCIBLE WITH WATER
CLASS 3.2 – INTERMEDIATE FLASHPOINT GROUP **LIQUIDS HAVING A FLASHPOINT OF 18 C (0 F) UP TO, BUT NOT INCLUDING, 23 C (73 F)**	ALCOHOLIC BEVERAGES	3065	AQUEOUS SOLUTIONS OF ETHANOL PRODUCED AND SUPPLIED AS ALCOHOLIC BEVERAGES. MISCIBLE WITH WATER
	PERFUMERY PRODUCTS, FLAMMABLE LIQUID COSMETICS	1266	**MARINE POLLUTANT** MISCIBILITY WITH WATER DEPENDS UPON THE COMPOSITION
CLASS 3.3 – HIGH FLAMMABLE GROUP **LIQUIDS HAVING A FLASHPOINT OF 23 C (73 F) UP TO, AND INCLUDING, 61 C (141 F)**	TETRAHYDRO-FURFURYLAMINE	2943	COLOURLESS TO YELLOWISH LIQUID WITH AN AMMONIACAL ODOUR. MISCIBLE WITH WATER.
	ETHYL BUTYRATE, ETHYL BUTANOATE	1180	COLOURLESS, VOLATILE LIQUID WITH A PINEAPPLE-LIKE ODOUR. IMMISCIBLE WITH WATER

Source: International Maritime Dangerous Goods Code (IMDG), Volume II , International Maritime Organization, London, 2008

CLASS 4: FLAMMABLE SOLIDS OR SUBSTANCES

The approach taken to flammable solids is significantly different to flammable gases and liquids, because it does not rely upon the flashpoint of the substance. Rather these solids are identified by their properties, which are important for the packaging, handling and transporting of the substance[70]. There are three classes; however all are equally dangerous in the right circumstances:

1) The first class is Flammable solids (Class 4.1), which are "solids possessing the properties of being easily ignited by external sources, such as sparks and flames, and of being readily combustible, or being liable to cause or contribute to fire through friction"[71]. Thus, it is the circumstance that is essential in the determination of the danger, i.e. if the right precautions are taken then the harm is limited;
2) Class 4.2 (Substances liable to spontaneous combustion); and
3) Class 4.3 (Substances which, in contact with water, emit flammable gases).

Box 4. IMDG Class 4 - Flammable solids or substances

Class 4.1 – Flammable solids

Class 4.2 – Substances liable to spontaneous combustion

[70] Ibid.
[71] Ibid.

Class 4.3 – Substances which, in contact with water, emit flammable gases

Source: International Maritime Dangerous Goods Code (IMDG), Volume III , International Maritime Organization, London, 2008

TABLE 4: Examples of Class 4 IMDG substances

CLASS 4	EXAMPLES	UN No.	PROPERTIES
CLASS 4.1 – FLAMMABLE SOLIDS	MATCHES, FUSES	2254	MATCHES, THE HEADS OF WHICH ARE PREPARED WITH A FRICTION-SENSITIVE IGNITER COMPOSITION WHICH BURNS WITH LITTLE OR NO FLAME, BUT WITH INTENSE HEAT, REGARDLESS OF WIND OR OTHER WEATHER CONDITIONS.
	METALDEHYDE	1332	WHITE CRYSTALS, POWDER OR TABLETS. INSOLUBLE IN WATER. HARMFUL IF SWALLOWED OR BY DUST INHALATION.
CLASS 4.2 – SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION	COTTON, WET	1365	READILY COMBUSTIBLE, LIABLE TO IGNITE SPONTANEOUSLY ACCORDING TO MOISTURE CONTENT.
	COPRA	1363	DRIED KERNELS OF COCONUTS, WITH A PENETRATING RANCID ODOUR WHICH MAY TAINT OTHER CARGOES. THIS SUBSTANCE SHOULD PREFERABLY HAVE BEEN WEATHERED FOR NOT LESS THAN ONE MONTH BEFORE SHIPMENT UNLESS A CERTIFICATE FROM A PERSON RECOGNISED BY THE COMPETENT

			AUTHORITY OF THE COUNTRY OF SHIPMENT STATES A MAXIMUM MOISTURE CONTENT OF 5 %
CLASS 4.3 – SUBSTANCES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES (DANGEROUS WHEN WET)	POTASSIUM (Soft, silvery metal, solid or liquid) SODIUM (White, ductile, soft metal)	2257 1428	FLOATS ON WATER. REACTS VIOLENTLY WITH MOISTURE, WATER OR ACIDS, EVOLVING HYDROGEN, WHICH MAY BE IGNITED BY THE HEAT OF THE REACTION. HIGHLY REACTIVE, SOMETIMES WITH EXPLOSIVE EFFECT.
	BATTERIES/ CELLS CONTAINING SODIUM	3292	SERIES OF HERMETICALLY SEALED METAL CELLS CONTAINING SODIUM, ELECRICALLY CONNECTED AND SECURED WITHIN A METAL CASING. “COLD” BATTERIES (BATTERIES CONTAINING ELEMENTAL SODIUM ONLY IN THE SODIUM STATE) ARE ELECTRICALLY INERT. BATTERIES ARE ACTIVATED BY HEATING TO BETWEEN 300 C AND 350 C BEFORE OPERATING TO PRODUCE ELECTRICITY. ACTIVATED BATTERIES (i.e. “HOT” BATTERIES CONTAINING LIQUID ELEMENTAL SODIUM) MAY CAUSE FIRE THROUGH SHORT-CIRCUIT OF THE TERMINALS.

Source: International Maritime Dangerous Goods Code (IMDG), Volume III , International Maritime Organization, London, 2008

CLASS 5: OXIDIZING SUBSTANCES

The classification of oxidising substances is crucial, because they act as catalysts with other substances and can create a significant hazard. These substances are divided into two classes, which are "Class 5.1 deals with oxidizing substances which, although not necessarily combustible in themselves, may increase the risk and intensity of a fire by giving off oxygen; [and] Class 5.2 covers organic peroxides, most of which are combustible"[72]. The division of this class like that of Class 4 is based on the nature of the good and how it needs to be packaged, labelled and stored. This is especially important due to the reactivity of the substance, which can create a greater hazard. For example, the IMDG identifies that

> ***Organic peroxides are carried by sea "on deck only" and are prohibited for carriage on most passenger ships. In some cases, certain packages may be required to carry a subsidiary risk label in addition to the class 5.2 label, e.g. a special class 1 (explosives) label. Substances of class 5.2 are assigned to 20 generic entries***[73]***.***

Box 5. IMDG Class 5 - Oxidizing substances

Class 5.1 - Oxidizing substances which, although not necessarily combustible in themselves, may increase the risk and intensity of a fire by giving off oxygen.

Class 5.2 - Organic peroxides

[72] Ibid.
[73] Ibid.

TABLE 5: Examples of Class 5 IMDG substances

CLASS 5 – OXIDIZERS AND ORGANIC PEROXIDES	EXAMPLES	UN No.	PROPERTIES
CLASS 5.1 – OXIDIZING SUBSTANCES	ALUMINUM NITRATE	1438	COLOURLESS OR WHITE CRYSTALS. DELIQUESCENT. SOLUBLE IN WATER. SLIGHTLY CORROSIVE. MIXTURES WITH COMBUSTIBLE MATERIAL ARE READILY IGNITED AND MAY BURN FIERCELY. HARMFUL IF SWALLOWED.
	BARIUM PEROXIDE	1449	WHITE POWDER PARTICULARLY IF WETTED WITH SMALL QUANTITIES OF WATER. A MIXTURE WITH COMBUSTIBLE MATERIAL MAY IGNITE FOLLOWING IMPACT OR FRICTION. WHEN INVOLVED IN A FIRE, OR IN CONTACT WITH WATER OR ACIDS, DECOMPOSES, EVOLVING OXYGEN. TOXIC IF SWALLOWED, BY SUN CONTACT OR BY DUST INHALATION.
CLASS 5.2 – ORGANIC PEROXIDES	ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED	3111	MAY EXPLODE AT TEMPERATURE HIGHER THAN THE EMERGENCY TEMPERATURE OR IN A FIRE BURNS VIGOROUSLY. IMMISCIBLE WITH WATER.
	ORGANIC PEROXIDE TYPE F, SOLID	3110	DECOMPOSES AT ELEVATED TEMPERATURE OR IN A FIRE. BURNS VIGOROUSLY. INSOLUBLE IN WATER

Source: International Maritime Dangerous Goods Code (IMDG), Volume III , International Maritime Organization, London, 2008 (Box 5 & Table 5)

CLASS 6: POISONOUS (TOXIC) AND INFECTIOUS SUBSTANCES

Class 6 follows the same approach as Class 4 and 5, which means that they are divided by their packaging, labelling and safety provisions. There are two broad classes, which are;

1) Toxic Substances (Class 6.1); and
2) Infectious substances (Class 6.2). In a similar manner to Class 4 and 5, the substances are listed and the requirements for safe shipping are identified.

Box 6. IMDG Class 6 - Toxic and Infectious substances

Class 6.1 – Toxic substances

Class 6.2 – Infectious substances

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV, International Maritime Organization, London, 2008

TABLE 6: Examples of Class 6 IMDG substances

CLASS 6 – TOXIC AND INFECTIOUS SUBSTANCES	EXAMPLES	UN No.	PROPERTIES
CLASS 6.1 – TOXIC SUBSTANCES	NICOTINE	1654	THICK COLOURLESS OIL, TURNING BROWN ON EXPOSURE TO AIR. MISCIBLE WITH WATER TOXIC IF SWALLOWED, BY SKIN CONTACT OR BY DUST INHALATION.
	LONDON PURPLE	1621	**MARINE POLLUTANT** MIXTURE OR ARSENIC TRIOXIDE, LIME AND FERRIC OXIDE, USED AS AN INSECTICIDE. INSOLUBLE IN WATER. TOXIC IF SWALLOWED, BY SKIN CONTACT OR BY DUST INHALATION.
	DICHLOROANILINES, SOLID OR LIQUID	1590	**MARINE POLLUTANT** COLOURLESS LIQUIDS OR SOLIDS WITH A PENETRATING ODOUR. LIQUID MIXTURES OF VARIOUS ISOMERS OF DICHLOROANILINES, SOME OF WHICH IN THE PURE STATE MAY BE SOLID, WITH A MELTING POINT VARYING FROM 24 C TO 72 C. TOXIC IF SWALLOWED, BY SKIN CONTACT OR BY DUST INHALATION
CLASS 6.2 – INFECTIOUS SUBSTANCES	INFECTIOUS SUBSTANCES, AFFECTING HUMANS	2814	SUBSTANCES WHICH ARE DANGEROUS TO HUMANS OR TO HUMANS AND ANIMALS.
	INFECTIOUS SUBSTANCES, AFFECTING ANIMALS ONLY	2900	SUBSTANCES WHICH ARE DANGEROUS TO ANIMALS ONLY. OBSERVATIONS: PRIOR TO SHIPMENT, THE CARRIAGE SHOULD BE APPROVED BY THE

		RELEVANT COMPETENT AUTHORITIES OF BOTH THE COUNTRY OF ORIGIN AND THE COUNTRY OF FINAL DESTINATION AS WELL AS OF EACH COUNTRY THROUGH WHICH THE CONSIGNMENT IS TO BE CARRIED. INFORMATION ON EMERGENCY PROCEDURES SHOULD BE PROVIDED BY THE SHIPPER AND AGREED BY THE COMPETENT AUTHORITY OF THE COUNTRY OF ORIGIN AND SHOULD ACCOMPANY THE CONSIGNMENT.

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV, International Maritime Organization, London, 2008

CLASS 7: RADIOACTIVE SUBSTANCES

Class 7 is based on the framework of the International Atomic Energy Agency's (IAEA) Regulations for the Safe Transport of Radioactive Material 1985, which was subsequently amended in 1990[74]. Much like Class 4, 5 and 6, the packaging, labelling and safety precautions are identified for each substance.

Box 7. IMDG Class 7 - Radioactive substances

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

[74] Ibid.

TABLE 7: Examples of Class 7 IMDG substances

CLASS 7	EXAMPLES	UN No.	PROPERTIES
CLASS 7 – RADIOACTIVE MATERIALS	RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – EMPTY PACKAGING	SCHEDULE 4 2910	1. EMPTY PACKAGINGS WHICH HAVE PREVIOUSLY CONTAINED RADIOACTIVE MATERIAL; 2. IF THE EMPTY PACKAGING INCLUDES NATURAL OR DEPLETED URANIUM OR NATURAL THORIUM IN ITS STRUCTURE, THE OUTER SURFACE OF THE URANIUM OR THORIUM SHALL BE COVERED WITH AN INACTIVE SHEATH MADE OF METAL OR SOME OTHER SUBSTANTIAL MATERIALS; 3. THE INTERNAL NON-FIXED CONTAMINATION LEVELS SHALL NOT EXCEED: .1 FOR BETA/GAMMA/LOX-TOXICITY ALPHA EMITTERS: 400Bq/cm2; OR .2 FOR ALL OTHER ALPHA EMITTERS: 40 Bq/cm2
	RADIOACTIVE MATERIALS, FISSILE, N.O.S.	2918	FISSILE MATERIALS OF ALL RANGE OF RADIOTOXICITY

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

CLASS 8: CORROSIVES

This category is broadly defined as "[s]ubstances in this class are solids or liquids; they can damage living tissue and materials, in some cases very severely"[75]. In much the same way as Class, 4, 5, 6 and 7 each substance has specified packaging and labelling indicators. In addition, there are special stowage and segregation procedures which must be identified in the level of danger posed. Furthermore, those corrosives that are also flammable must be treated in the same way as the flammable classes.

Box 8. IMDG Class 8 - Corrosive substances

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

[75] Ibid.

TABLE 8: Examples of Class 8 IMDG substances

CLASS 8	EXAMPLES	UN No.	PROPERTIES
CLASS 8 – CORROSIVES	SULPHURIC ACID WITH MORE THAN 51 % ACID	1830	COLOURLESS, OILY LIQUID, MIXTURE OVER 1.405 UP TO 1.840 SPECIFIC GRAVITY. IN THE PRESENCE OF MOISTURE, HIGHLY CORROSIVE TO MOST METALS. CAUSES BURNS TO SKIN, EYES AND MUCOUS MEMBRANES.
	PHOSPHOROUS ACID, SOLID OR SOLUTION	2834	COLOURLESS TO YELLOW DELIQUESCENT CRYSTALS, OR SOLUTION. SOLUBLE IN WATER. MILDLY CORROSIVE TO MOST METALS. CAUSES BURNS TO SKIN, EYES AND MUCOUS MEMBRANES.
	GALLIUM	2803	SILVERY-WHITE METALLIC ELEMENT THAT MELTS AT 29 C, BECOMING A BRIGHT, SHINY LIQUID. INSOLUBLE IN WATER HIGHLY CORROSIVE TO ALLUMINIUM OBSERVATIONS: HARMFUL IF SWALLOWED, BY SKIN CONTACT OR BY INHALATION. SPECIAL CARE SHOULD BE TAKEN IF A LEAKAGE OCCURS WHEN CARRIED IN ALLUMINIUM FREIGHT CONTAINERS. CARRIAGE SHOULD BE PROHIBITED IN HOVERCRAFT AND OTHER SHIPS CONSTRUCTED FROM ALLUMINIUM.

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

CLASS 9: MISCELLANEOUS DANGEROUS SUBSTANCES

Finally, Class 9 is the catchall which includes dangerous goods that do not fall into Class 1 to 8, but have been identified as a dangerous good. Hence, the IMDG has dealt with this wide variation of this class by creating individual schedules which include detailed information on stowage and segregation, packing and further observations[76].

Box 9. IMDG Class 9 - Miscellaneous dangerous substances

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

[76] Ibid.

TABLE 9: Examples of Class 9 IMDG substances

CLASS 9 MISCELLANEOUS	EXAMPLES	UN No.	PROPERTIES
CLASS 9 MISCELLANEOUS DANGEROUS SUBSTANCES AND ARTICLES	CHEMICAL KIT OR FIRST AID KIT	3316	THE ENTRY **CHEMICAL KIT** OR **FIRST AID KIT** IS INTENDED TO APPLY TO BOXES, CASES ETC. CONTAINING SMALL QUANTITIES OF VARIOUS DANGEROUS GOODS WHICH ARE USED FOR MEDICAL, ANALYTICAL OR TESTING PURPOSES. SUCH KITS MAY NOT CONTAIN DANGEROUS GOODS (see 18.2 of the General Introduction, IMDG). COMPONENTS SHOULD NOT REACT DANGEROUSLY IN THE EVENT OF A LEAKAGE CAUSING: .1 COMBUSTION AND/OR EVOLUTION OF CONSIDERABLE HEAT; .2 EVOLUTION OF FLAMMABLE, TOXIC OR ASPHYXIANT GASES; .3 THE FORMATION OF CORROSIVE SUBSTANCES; OR .4 THE FORMATION OF UNSTABLE SUBSTANCES.
	LITHIUM BATTERIES	3090	ELECTRICAL BATTERIES CONTAINING LITHIUM OR LITHIUM ALLOY ENCASED IN A RIGID METALLIC BODY. LITHIUM BATTERIES MAY ALSO BE SHIPPED IN, OR PACKED WITH, EQUIPMENT. ELECTRICAL LITHIUM BATTERIES MAY CAUSE FIRE DUE TO AN EXPLOSIVE RUPTURE OF THE BODY CAUSED BY IMPROPER CONSTRUCTION OR REACTION WITH CONTAMINANTS.

Source: International Maritime Dangerous Goods Code (IMDG), Volume IV , International Maritime Organization, London, 2008

2.3 SUMMARY – DEVELOPING A SINGLE COMPREHENSIVE MEANING OF *DANGEROUS GOODS*

It is clear that the purpose of this provision is purely to define the appropriate packaging, labelling, stowage and segregation of known dangerous goods. The problem with the IMDG approach is that it does not deal with goods that are *inherently innocuous*, but can become dangerous in specified circumstances. Therefore, it does not have the required nature to become an international convention to form a separate framework for the shipping of dangerous goods. Rather, the flexible approach of the English common law system remains the most attractive manner to tackle the carriage of dangerous goods by the sea.

Even so, the newly implemented Rotterdam Rules codify the first express definition of dangerous goods within a carriage of goods by sea convention. Under Article 32 of the RR, dangerous goods are goods which "by their nature or character are, or appear likely to become, a danger to persons, property or environment". Hence, this definition clarifies the meaning of dangerous goods; however the second part of the definition, i.e. *appear likely to become,* allows for the flexible to be adopted which is associated with the English approach. This supports the premise of this research that the Rotterdam Rules can provide a comprehensive framework to form a separate protocol in respect to dangerous goods.

Box 10. Labels of Classes 1 to 9 IMDG

Source: International Maritime Dangerous Goods Code (IMDG), Volume II , International Maritime Organization, London, 2008

PART THREE: DANGEROUS GOODS REGULATIONS

3.1 OVERVIEW

In the same manner as the discussion of the IMDG, this chapter will briefly explore a number of international conventions, codes and regulations that are in place. Albeit it is crucial to stress that these conventions are reliant on the definition, duty and liability regime of domestic legislation. The IMDG was based in the SOLAS Conference (1960), which identified that it was necessary for there to be a single uniform code for the carriage of dangerous goods by the sea. Resolution 56 was quite ambitious in its expectations of a uniform code, because in the end it has become simply a code that focuses on labelling, stowage, packaging and segregation[77]. Thus, it has failed to derive a uniform stance because the primary elements of liability lay with the domestic jurisdiction.

The basis of the SOLAS Convention is purely on the safety aspects of carriage of dangerous goods by the seas, whereas MARPOL focuses on the environmental elements. This lends to the argument that the current system is not *fit for purpose*, because it is a *hodgepodge* of different laws that lead to confusion. Therefore, the following chapter will explore the impact and effectiveness of these laws, which will be followed by a consideration of bringing these elements into a single harmonised convention.

3.2 INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA (1974) (SOLAS 74 CONVENTION)

The SOLAS 1974 Convention (as amended in 1994) applies the IMDG framework to all ships that are governed by SOLAS Regulations. The most crucial aspect of SOLAS in this discussion is Part VII, which expressly provides that all dangerous goods must be carried within its framework. Part of this is the implementation of the IMDG; however it was initially identified to be discretionary in nature. Rather, the express provision is that contracting jurisdictions must provide an acceptable schedule in regards to each good that falls under the IMDG[78]. The benefit

[77] Henry CE (1985) *The Carriage of Dangerous Goods by Sea—The role of the International Maritime Organization in International Legislation*, Frances pg. 93-94
[78] Ibid, pg. 95

that was identified in adopting the IMDG Code was that it provided a single uniform approach to the shipping of dangerous goods by the sea[79]. As mentioned in the previous section, both the UK and the USA have ratified SOLAS 1974; as well as implemented the IMDG Code directly into its regulations[80].

The IMDG Code was initially implemented into the international framework in 1985. Even so, since then it has been reviewed in regards to the addition of dangerous goods and the updating of safety measures. In January 2012 a new amendment will be implemented (Amendment 35)[81]. In 2008, with the 33rd amendment contracting States to SOLAS 1974 had to mandatorily implement the IMDG into their legal framework. In addition to the IMDG Code, SOLAS 1974 also identifies other elements in regards to the Health and Safety elements of stowage[82]. These basis of the SOLAS 1974 Convention was to bring together the series of *UN Recommendations on the Transport of Dangerous Goods* and proposed conventions that has failed to be implemented or not meeting the required uniformity[83]. However, Chapter VII remains to be the most effective element because it "is comprehensive in nature. It deals with dangerous goods in packaged form as well as bulk cargoes"[84]. This means that issue with SOLAS 1974 is identical to that of the IMDG Code, which is: it only provides a framework. The implication of this is that it is subject to the interpretations of liability and duties under the domestic framework. In order to create a uniform approach envisaged in the 1914 SOLAS Agreement, which is the regulation of the "carriage of goods which [is] by reason of their nature, quantity and mode of stowage", then a single comprehensive regulation is necessary that deals with liability and duties of the parties involved in the contact of carriage.

[79] Ibid, pg. 100; IMO (1997) "IMO and dangerous goods at sea", May 1996, pg.3 http://www.imo.org/includes/blastDataOnly.asp/data_id%3D7999/IMDGdangerousgoodsfocus1997.pdf
[80] IMO (Online(a)) http://www.imo.org/includes/blastDataOnly.asp/data_id%3D20098/status.xls
[81] IMO (Online (b)) International Maritime Dangerous Goods (IMDG) Code", see details at http://www.imo.org/home.asp
[82] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 8
[83] Ibid, pg. 13
[84] Ibid, pg. 14

3.3 INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL 73/78 CONVENTION)

MARPOL 1973/78 deals with the pollution from ships which means it is focused on the

> ***prevention of pollution of the marine environment by ships through operational and accidental cause […] The MARPOL Convention covers pollution by oil chemicals, harmful substances in packaged form, sewage and garbage***[85]***.***

The convention is very broad by nature which also points to it not being *fit for purpose* in regards to the liability regime of shipping dangerous goods. In fact, the MARPOL Convention is an amalgam of two conventions:

1) The International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted on 2 November 1973 at IMO and covered pollution by oil, chemicals, harmful substances in packaged form, sewage and garbage[86]; and the
2) Protocol of 1978 relating to the 1973 International Convention for the Prevention of Pollution from Ships (1978 MARPOL Protocol) was adopted at a Conference on Tanker Safety and Pollution Prevention in February 1978[87].

Annex III is the element of MARPOL that is of relevance to the shipment of dangerous goods, because it deals directly with the "general requirements relating to the prevention of pollution by harmful substances carried at sea in packaged form or in freight containers, portable tanks or road and rail tank wagons"[88]. The one beneficial element that MARPOL has in regards to harmonisation is that it takes into account the nature of the carriage, which can include road and rail[89]. This means if a single convention was to be developed it would be far easier to "fit" with the provisions under the Rotterdam Rules because it is the only carriage of goods by sea convention that ensures multimodal transport.

[85] Ibid, pg. 11; Annex III of MARPOL
[86] Ibid, pg. 11-12
[87] Ibid, pg. 11-12
[88] Ibid, pg. 11; 156 States are party to the Annex III
[89] Annex III of MARPOL

In addition, the purpose and definition of MARPOL are most conducive to the RR approach because it deals with the liability of the marine pollution in a single comprehensive approach. Therefore, the MARPOL Convention identifies that marine pollutants should be "packed and stowed on ships in such a way as to minimise accidental pollution; as well as to aid recovery by using clear marks to distinguish the cargo"[90]. The implication is that this system "fits" neatly with the application of SOLAS 1974 and the IMDG CODE. However, like this approach the liability regimes of the carrier and shipper remained to be determined by the national jurisdiction.

3.4 SUMMARY

The above highlights the issues of creating uniformity, because these technical standards are not effective without the appropriate legislation. In a sense, it seems that the international framework has been developed by *filling in the gaps*; even if proper consideration of the actual liability regime has been considered.

The HNS Convention (1996) is an example of a comprehensive approach to deal with the liability of catastrophic events; thus it is possible to implement a singular approach. One has to admit this convention is limited, but it illustrates that there does not have to be a reliance of national implementation of liability. The Rotterdam Rules seem to be the most effective model to provide the amalgamation of MARPOL and SOLAS to the wider shipment of dangerous goods. It is essential to identify that the International Bulk Chemical Code (IBC Code) and its predecessor the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) have also provided uniform liability systems for specific area of the shipping industry. The IBC has also been mirrored in the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code). These codes are all directly implemented into national legislation in a similar manner to the IMDG; however go past the technical standards of the IMDG to include a liability element. Albeit the

[90] MARPOL Annex III Regulations for the prevention of pollution by harmful substances carried by sea in packaged form; IMO (1998) "Focus on IMO, Marpol 25 Years"

liability element is the simplified approach highlighted in SOLAS 1974, which is the prohibition of carrying any goods in contradiction of these codes[91]. Therefore, the English approach of the prohibition of dangerous goods, unless the carrier has given consent and knowledge and in accordance with statutory provisions (i.e. the Merchant Shipping (dangerous goods) Act 1995 and the Merchant Shipping (dangerous goods and marine pollutants) Regulations 1997). The problem with this approach is that it does not adequately provide a comprehensive working definition that the Rotterdam Rules provide.

[91] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer, pg. 14

PART FOUR: LIABILITY AND DUTIES OF THE CARRIER AND THE SHIPPER:

The purpose of this chapter is to examine the duties and liabilities of the shipper and the carrier in relation to the shipment of dangerous goods under the Hague-Visby Rules (English law) and the Hamburg Rules (US law). This chapter will begin with an analysis of the issue of duties in respect to general goods, which highlights how there is discord in the liability system due to the national implementation of different legal rules in regards to the general shipment of goods[92]. The traditional approach to liability is identifiable under the case of *Schnell v. The Vallescura,* which is apportioning loss. Rather, the RR replaced this approach with strict liability for loss and damage that was due to the carrier's actions. This means that there has to be an extension and clarification of the shipper's duties under the RR. The significance of this difference and the extent of the duties in full will be illustrated in relation to the meanings explored in Part 2 above. It is crucial to highlight that the liability of the shipper has also been discussed in part in Part 2, through the examination of the meaning of dangerous goods in US and English law. Therefore, throughout this discussion reference will be made to the Rotterdam Rules as a model to *fill the gaps* and *create certainty* in the carriage of goods by the sea regime. This will then lead to an investigation of the liabilities arising out of the breach of duties of the carrier under the three systems, i.e. the Hague-Visby, Hamburg and Rotterdam Rules, in relation to the shipment of dangerous goods[93].

This approach has a simplicity that is attractive; however the Rules do not adequately identify what constitutes a loss due to damage or loss of the cargo. Does the loss extend to delay, even though delay is no longer a "fundamental breach"? When does the due diligence apply? What is meant by due diligence? These are all questions that remain and are resulting in a critical review of the balancing effect of the Rotterdam Rules[94]. The result of this criticism is that there is a

[92] Bulow, Lucienne Carasso, "Dangerous cargoes: the responsibilities and liabilities of the various parties", *[1989] L.M.C.L.Q. 346*; Margetson, NJ (2008) *The system of liability* : Deventer; de Wit, R (1995) *Multimodal transport : carrier liability and documentation* LLP

[93] Goddard, KS (2010) "The application of the Rotterdam Rules", J.I.M.L. 2010, 16(3), 210-220; ESC (2009) *View of the European Shippers' Council on the Convention on Contracts for the International Carrying of Goods Wholly or Partly by Sea also known as the Rotterdam Rules,* March 2009, Available online at: www.europeanshippers.com/.../esc-position-paper-rotterdam-rules-march09.doc; European Parliament Resolution May 2010 on strategic goals and recommendations for the EU's Maritime transport policy until 2018

[94] Diamond, A (2009) "The Rotterdam Rules" *L.M.C.L.Q 445*, 493; Baughen, S (2009) "Obligations Owed by the Shipper to the Carrier", *in,* D Rhidian Thomas Eds. (2009) *A New Convention For The Carriage Of Goods By Sea: The Rotterdam Rules,* Lawtext, pg. 185; CMI, "(2000) Door to door transport", CMI Yearbook (2000) 118; CMI, (2001), "Issues of transport law.

strong argument that harmonisation will not occur, especially since the Rules re-insert extended liabilities to the shipper.

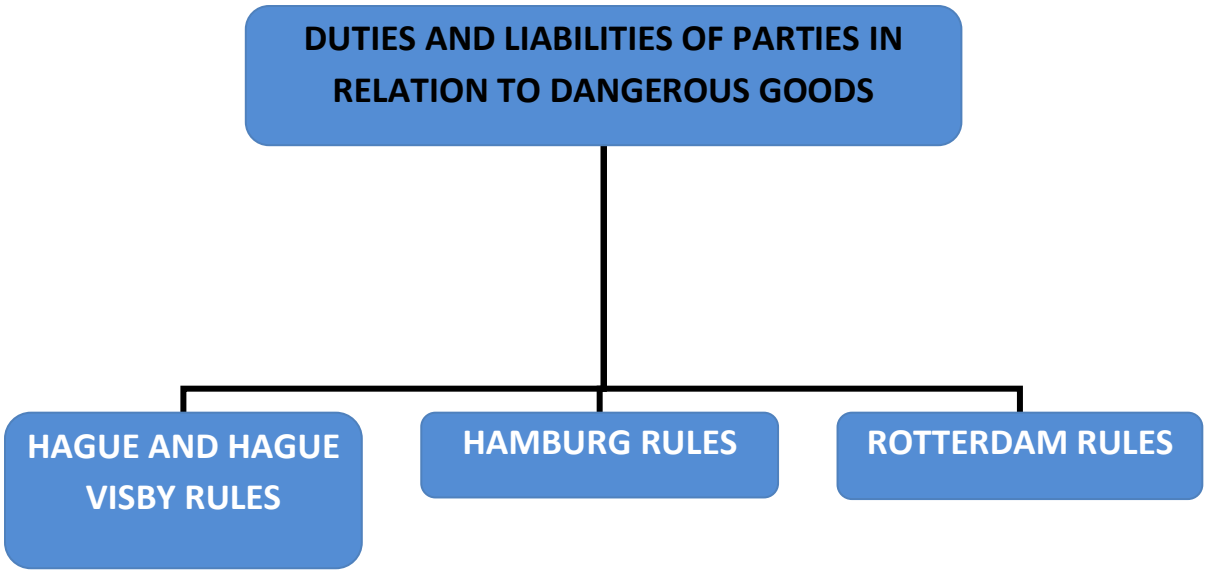

Figure 6: Duties and liabilities of the parties under HHVR, Hamburg Rules and Rotterdam Rules

Source: Compiled by author

Report of committee A", CMI Yearbook (2001) 182; CMI, (2001), "CMI Draft Instrument on Transport Law", CMI Yearbook (2001), at 532-597; CMI, (2003) "A guide to e-commerce features in the draft instrument on the carriage of goods [wholly or partly] [by sea]" CMI Yearbook (2003) 250; CMI International Working Group on the Rotterdam Rules (2009), "Questions and Answers on The Rotterdam Rules", (2009) 1; Diamond, [2008] "The next sea carriage Convention", [*2008] LMCLQ 135*

4.1 DUTIES AND LIABILITIES OF THE SHIPPER UNDER THE HAGUE-VISBY, HAMBURG AND ROTTERDAM RULES

The first case that this section will consider is the *Mediterranean Freight Services v. BP Oil (The Fiona*), because it defines the basic liability of the shipper. In this case, Judge Diamond, QC held that:

> ***It is clear as a matter of construction that if the carrier is able to prove the three matters specified in Article 4(6) then he is entitled to recover compensation from the shipper for the loss sustained by him as the result of the shipment of a dangerous cargo. What the carrier has to prove; 1) that the shipper shipped goods of an "inflammable, explosive or dangerous nature; 2) that neither the carrier, the master nor any agent of the carrier consented to the shipment of such goods with knowledge of their nature and character; and 3) that the carrier suffered damages or expenses directly or indirectly arising out of or resulting from such shipment*** [95]***.***

The implication of this case is, under the Hague-Visby Rules, there is a strict application of liability if it can be shown that the shipper failed to inform the carrier of the shipment of dangerous goods. The act of informing can be express or implied, i.e. if the description of the goods points to the obvious presence of dangerous goods, then knowledge is present. The question of liability in the case of the HVR and the Hamburg Rules are closely tied to that of the meaning of the word *dangerous*; therefore this concept will be considered against the backdrop of shipper's liability.

As discussed in Part 2 above, dangerous goods under the English system do not only refer to goods which are physically dangerous. The case of *Mitchell, Cotts v. Steel* was considered and identified that a good could be dangerous if posed a legal threat, such as contraband. In order to illustrate the application of this rule, the facts of the case will now be considered. The goods at the centre of *Mitchell, Cotts v. Steel* is rice, which is not considered inherently or potentially dangerous (i.e. grain). The issue that was at the centre of the dispute was that the shippers had not identified that they required permission to unload goods at the specified port. This was not a well-known occurrence, at the time of the case, and the shippers had failed to inform the carriers. This meant that the carriers were unable to unload the shipment because it may have resulted in

[95] *Mediterranean Freight Services v BP Oil (The Fiona),* [1993] 1 Lloyd's Rep. 257 at 268 Judge Diamond, QC

seizure of the ship. As mentioned in Part 2, this was held to being akin to the goods destroying the cargo. Even so, this extension of the meaning of dangerous goods was limited in the case of *Transoceanica v. HS Shipton*[96], because it has to be a real and dangerous obstacle.

In respect to the application of 4(6) of the Hague-Visby Rules, it was held that goods were dangerous if the perceived danger was of physical nature *Effort Shipping Co Ltd v. Linden Management S.A.* (*The Giannis NK*)[97]. However, as Part 2 illustrated this danger must be *given a broad and flexible meaning*, which means that the application of legal danger still applies in regards to the cargo. This was confirmed in the House of Lords where

> ***more over the normal meaning of the word 'dangerous' in relation to goods does seem to me to imply that the goods are such as to be liable to cause physical damage to some object other than themselves***[98]***.***

Hence, it is the duty of the shipper to inform the carrier of any known impediment that might threaten the ship. In the case of *Bunge SA v. ADM do Brasil Ltda (The Darya Radhe)*[99], an impediment in the goods that causes a *mere delay* will more than likely not considered to be dangerous. In *The Darya Radhe*, the issue was whether live rats found in a soya bean pellet was considered danger when loading. The court identified that as the load was fumigated and the receivers accepted the goods then the delay could not be due to dangerous goods; rather it was held that this delay was the course of normal events. Hence, the courts indicated that shipper liability would not apply under the Hague-Visby Rules and more than likely would not apply to the Hamburg Rules. Even so, the court maintained the common law rules of legally dangerous goods may still apply[100]. The implication is that further confusion is created. This is because, in addition to the domestic implementation of Hague-Visby or Hamburg Rules, there is liability that is different under the common law. For example, if one refers back to the *The Athanasia Comninos* application of legally dangerous goods is broad, which ranges from "dangerous" to

[96] *Transoceanica v HS Shipton*[1923] 1 KB 31
[97] *Effort Shipping Co Ltd v Linden Management S.A.* (*The Giannis NK*) [1998] 1 All ER. 495 (HL).
[98] ibid
[99] *Bunge SA v ADM do Brasil Ltda (The Darya Radhe)* [2009] EWHC 854 (Comm);
[100] ibid

"injurious". Thus, this supports the argument that there has been a systemic failure of the unifying effect of the Hague-Visby Rules because the common law has had to step into *fill the gaps*:

> ***The Hague Rules 1921 by transforming them into an international Convention. It had made an (insufficient) attempt to modernise them with the Protocol of 1968. However, soon after the additional Protocol of 1979 that replaced the Franc Poincaré with the SDR, the CMI realised that the Hague-Visby Rules had become obsolete and that something had to be done in order to ensure preservation of uniformity of the law of carriage of goods by sea***[101]**.**

This approach is highly problematic, because it can create a situation where it is difficult to determine where the shipper's liability ends and the carrier's begin. Hence, this means that the comprehensive approach that is advocated by the Rotterdam Rules may be a more persuasive approach.

The issue of liability centres on the concept of due diligence, which has focused on the carrier[102]. This approach continued in the case of both the Hague-Visby and Hamburg Rules. Hence, the

> ***Shipper is not restricted to shipping only goods which carry no risk at all, for all goods present some risk. Responsibility for such risks (e.g., for losses arising from "inherent vice") or for avoiding or minimising their consequences may of course fall on a shipper or charterer, who may therefore be liable for losses suffered by the carrier or third parties as a result of the shipment of such good*** [103]***.***

The Rotterdam Rules have been developed to even-out the obligations and move away from the carrier-dominated process. In the case of the Hague-Visby Rules, the only obligation of the shipper is guaranteed accurate information in regards to:

1) the marks;

[101] Berlingieri (2009) "Revisiting the Rotterdam Rules" *L.M.C.L.Q. 2010, 4(Nov),* 583-639, 583
[102] S.1(a) of the Hague and Hague-Visby Rules.
[103] Rose, FD (1996) "Cargo Risks: Dangerous Goods" *Cambridge Law Journal 55(3)* 601-613, pg. 603

2) number;

3) quantity;

4) weight; and

5) potential hazard of the goods[104].

This means if the shipper properly identifies the goods as dangerous and the carrier accepts the goods then all liability is shifted to the carrier. The Hamburg Rules, on the other hand, devote an extended approach to the liability of the shipper. This is directly related to the shipment of dangerous goods. In effect, one can identify that the Hamburg Rules are implementing the IMDG and SOLAS into its framework. This is because the three additional requirements are:

1) marking or labelling the goods to indicate their dangerous nature[105];

2) notifying the carrier of the dangerous character of the goods;

3) taking the necessary precautions in regards to SOLAS and the IMDG[106]; and

4) expressly stating that the goods are dangerous under the bill of lading[107].

One could argue that the Hamburg System provides the most effective framework to implement a single convention because the elements of SOLAS and the IMDG are already present. The problem with this approach is that it does not provide the flexible approach to the concept of danger; hence it could be criticised as being a "box" ticking process.

This research will now consider liability under the Rotterdam Rules. In the case of the shipper, their obligation and liability are found under Article 27 of the RR. The duty of the shipper is to ensure that delivery of the goods for carriage are in such a condition so as to:

1) undergo the intended carriage; and

2) not to cause injury to the ship, cargo or crew.

[104] Article.3(5), The Hague-Visby Rules; Article.4(3), The Hague-Visby Rules
[105] Article 13(1)
[106] Article13 (2)
[107] Article 15(1)

Thus, the implication is that the whole process from packing to unloading is in a manner that is safe, most particularly in the case of dangerous goods[108]. In other words, the goods conform with SOLAS and the IMDG, but also include a wider definition so that the application of *The Athanasia Comninos* is plausible.

The Rotterdam Rules have been developed to ensure that the shipper has a more defined liability owed to the carrier; as well as limiting the defences of the carrier in the case of a breach[109]. One can argue that the system that has been developed under the Rotterdam Rules is more conducive to dangerous goods, because it extends the liability of the shipper. This has lead the argument that this liability extension may be unfair[110]. Albeit in regards to dangerous goods, common law has had to step in to ensure that the spirit of what constitutes a dangerous good is adequately dealt with. This common law extension is most notable in the English legal system; however to a certain extent is also present in the US approach.

It is important to re-iterate the purpose of the Hague Rules in the first place, which was to remove the liability that the shipper had under the common law when the carrier was the reason for loss, damage or delay[111]. Hence, there has been a move to return some of the liability back to the shipper from the carrier, which allows for extension of the multimodal approach; as well as the reconsideration of the shipper's liabilities under the dangerous goods regulations. This is in direct contrast to the Hague-Visby Rules, which identifies that the carrier is liable to the shipper in regards to goods, because the carrier owes a general duty of care to the shipper[112]. As Rose argues, once the carrier has knowledge (or implied to have knowledge) of the dangerous cargo

> ***It is the carrier's duty to provide a ship which is seaworthy (which includes the duty to ensure that it is fit for the contract cargo); also it is a normal part of a carrier's duties to take appropriate measures to avoid loss resulting from risks***

[108] Article 27 (1) & (3) Rotterdam Rules.
[109] Berlingieri (2009) "Revisiting the Rotterdam Rules" *L.M.C.L.Q. 2010, 4(Nov),* 583-639.
[110] Johansson, SO, Oland, B, Ramberg, J, Tetley and Schmitt (2009) *A response to clarify certain concerns over the Rotterdam Rules* August 5th 2009 http://www.mcgill.ca/files/maritimelaw/Summationpdf.pdf
[111] Carr, I and Stone, P (2009) *International Trade Law,* Taylor and Francis, pg. 238; August, R, Mayer D and Bixby M (2008) *Business Law, fifth edition.* Pearson
[112] *Pyrene Co. v. Scindia Steam Navigation Co* [1954] 2 Q.B. 402

> ***of which he is or should be aware, and he assumes all risks of accidents attributable to a failure to carry in that manner***[113]***.***

The problem with this approach is that the system fails to deal with the modern issues that are surrounding carriage of goods in the 21st Century, such as door-to-door carriage and the increased environmental and safety protections. Therefore, there has been a move to return some of the liability back to the shipper from the carrier. This is essential to the effective regulation of dangerous goods, because only the shipper knows what is in the shipment. This argument is even more pertinent, as many goods are container based on a ro-ro basis.

Ro-ro and container based shipping is why the shipper must provide all the documentation and information, in respect to the goods, in reasonable time and that is reasonably necessary. The reason for this is that Article 29 (1) of the Rotterdam Rules identifies that the documentation is necessary

> ***to ensure the proper handling and carriage of the goods, including precautions to be taken by the carrier or a performing party; and […] for the carrier to comply with law, regulations or other requirements of public authorities in connection with the intended carriage, provided that the carrier notifies the shipper in a timely manner of the information, instructions and documents it requires.***

Article 29 is similar to that of Article 4(1) of the Hague-Visby Rules and Article 12 of the Hamburg Rules. However, the primary difference is that there is a singular meaning to the provision of a dangerous good under Article 31. The implication of this is that there is a stronger regime in order for the carrier not to be held liable for an "act or omission of the shipper or owner of the goods, his agent or representative"[114]. In addition, there is an increased likelihood that the shipper will be found in breach of stowing dangerous goods without the carrier's knowledge. This is due to the definition of dangerous goods, as opposed to the actual information to be provided under Articles 31 and 36 of the Rotterdam Rules. It is also clear that

[113] Rose, FD (1996) "Cargo Risks: Dangerous Goods" *Cambridge Law Journal 55(3)* 601-613, pg. 603
[114] Article 4(i) Hague-Visby Rules and Article 12 Hamburg Rules.

all three regimes support the application of strict liability of the shipper, if the shipper fails to relate the nature of the dangerous goods[115]. This has been confirmed in the case of *The Giannis NK* at both the statutory and common law level.

In fact, this requirement is the same as the Hamburg provisions. Article 13 of the Hamburg Rules identifies that in the case of where a shipper loads cargo that has or may have a dangerous nature then it is necessary to inform the carrier in an express statement. If the shipper fails to do this then all liability remains with the shipper; however if the carrier accepts the goods "with knowledge of their dangerous character" then all liability passes to the carrier[116]. Even so, the meaning of dangerous goods, under Article 32, has meant there is potential a more effective application of these provisions under the Rotterdam Rules. Hence, this supports the argument that the Rotterdam Rules should act as the core to a protocol on a uniform convention on the shipment of dangerous goods by the sea.

4.2 DUTIES AND LIABILITIES OF THE CARRIER

This section will now consider the liabilities of the carrier in regards to the shipment of goods. It is crucial to identify that once the carrier has knowledge of dangerous cargo then the application of due diligence is necessary[117]. As Rose argues

> ***The shipper is not liable if he provided the carrier with sufficient information to enable him to assess the nature of the cargo or if the carrier himself knew of or should have appreciated the risk. Manifestly, the shipper will not be relieved so far as the carrier's actual or constructive knowledge was insufficient***[118]***.***

Therefore, the liability has passed to the carrier to ensure that the ship is able to carry the goods aboard for safe delivery in order to fulfil the contract of shipment, i.e. the carrier is liable for any

[115] Scrutton (1996) *Scrutton on Charterparties and Bills of Lading*, 20th ed. Sweet & Maxwell pg. 105
[116] Girvin, *Shipper's liability for the carriage of dangerous cargo by sea*, [1996] L.M.C.L.Q. 502
[117] Carr, I and Stone, P (2009) *International Trade Law*, Taylor and Francis, pg. 238; Chauh, J (2005) *Law of International Trade 3rd Edition*, Sweet and Maxwell
[118] Rose, FD (1996) "Cargo Risks: Dangerous Goods" *Cambridge Law Journal 55(3)* 601-613, pg. 608

loss or damage caused by the goods[119]. The carrier is also liable for an act that is caused by the negligent act of their agent or servant[120]. Price argues that the Hague-Visby Rules are

> ***The most famous conscious balancing act of these [the shipper's] rights and [carrier's] exceptions in recent maritime legal history is of course enshrined in the Hague-Visby rules Conventions of 1922-1923 and 1968 respectively***[121]***.***

The Hague-Visby Rules have been identified as providing the basic approach to the liability of the carrier for all three regimes[122], which include 5 key duties, which are:

1) provide a Seaworthy ship;
2) proceed with due dispatch;
3) carry goods to the appointed place or destination without deviation;
4) take reasonable care of the cargo (stowage); and
5) deliver the goods to a specified or identifiable person at the port of discharge.

Thus, this essay will discuss the pertinent duties of seaworthiness and stowage and then consider how they are related to the carriage of dangerous goods.

The case of *Kopitoff v. Wilson*[123] identifies the primary duty of providing a seaworthy ship, i.e. a ship is "fit to meet and undergo the perils of the sea and other incidental risks to which of necessity she must exposed in the course of a voyage" This is an absolute duty, which in the case of dangerous goods means that the ship is able to carry the specified goods. Hence if the carrier accepts goods that the ship is unable to carry then the ship could be deemed as

[119] *Adamastos Shipping Co. Ltd. v. Anglo-Saxon Petroleum Co. Ltd [1959] AC 133*
[120] Price.R, 'The Responsibility of a Carrier of Goods by Sea under the Laws of the Arabian Gulf States: "The Exceptions and the Rule' (1987) Arab Law Quarterly, Volume 2, No 1, 29-33.
[121] Ibid, pg. 29
[122] *Phillips Petroleum Co v Reardon Smith Line Ltd* [1951] 2 Lloyd's Rep. 39 and *Minister of Food v Reardon Smith Line Ltd* [1951] 2 Lloyd's Report 265
[123] *Kopitoff v Wilson (1876) 1 QBD 377, as per Field J at 380*

unseaworthy[124].The test of un-seaworthiness is identified in the case of *President of India v. West Steamship Co.* It was held in this case that the standard of a ship to be seaworthy

> ***is not an accident free ship, nor an obligation to provide ship or gear which might withstand all conceivable hazards. In the last analysis the obligation, although absolute, means nothing more or less that the duty to furnish a ship and equipment reasonably suitable for the intended journey***[125]***.***

The implication of this case is that the ship is capable of undergoing the journey and be able to carry the goods safely. This has traditionally been identified as the ship needs to be "suitably manned and suitably equipped to meet the perils of the sea"[126] However, with the application of the Rotterdam Rules one could easily extend this to include that the ship is suitable to carry the goods on the manifest, i.e. dangerous goods[127].

The next consideration is the duty not to ship dangerous goods unless properly stowed under 4(6) of the Hague Visby Rules. The approach under the HVR, the Hamburg and Rotterdam Rules will be very similar because the application has stayed essentially the same. The implication is that there is a duty that the goods are stowed safely and do not pose a risk to the other goods[128]. This approach also includes the concept of constructive notice, as identified in the case of *Brass v Maitland.* Hence, if it is reasonable that the carrier should have known that the cargo was dangerous then this will be implied as knowledge. One could argue that the approach under the Rotterdam and Hamburg Rules are different; albeit a common sense approach will most likely take constructive knowledge to be actual knowledge the most obvious cases. This falls in line with the case of *The Giannis NK,* which held that any breach of the carrier's results in liability to the shipper. However, carrier duty only applies when there is knowledge of any special qualities of the goods, such as being hazardous.

[124] *Steel v State Line Steamship (1877) 3 App Cas 72*
[125] *President of India v West Steamship Co [1963] 2 Lloyds Rep 278 (at 281)*
[126] Wilson, JF (2008) *Carriage of Good by the Sea 6th Edition*, Longman., pg. 11
[127] Goddard, KS (2010) "The application of the Rotterdam Rules", J.I.M.L. 2010, 16(3), 210-220
[128] *The Giannis NK [1998] 1 Lloyds Rep 337*

Therefore, the Hague-Visby (and Hamburg) Rules relies on the application of due diligence, in relation to the duties of the shipper. In respect to the shipment of dangerous goods, it is essential that the carrier complies with domestic health and safety regulations; as well as SOLAS and the IMDG. This is because if the carrier is found to breach the safety regulations and this breach is identified as the proximate cause of any harm then the carrier will be liable under tort, as well as a breach of contract[129]. In the same manner, if it can be shown that the shipper has failed to identify the presence of dangerous goods then any damage will result in tortious liability; as well as contractual liability. In the case of the carrier this liability includes the act of an agent or employee. The US Case of *The Shell Bar (Fire)*[130] identified that in the case of a servant not acting in a due diligent manner will be extended to the carrier, except in the instance of fire. This has direct implication to the case of dangerous goods, because in a significant number of circumstances the most likely outcome of a breach is fire. In response to this issue, especially in respect to environmental harm, the courts have imputed due diligence in the case that the carrier did not have reasonable control and made adequate checks of their servant[131].

Thus, Carr argues that the carrier has to have proper control of the "[r]esponsibility of exercising due diligence to make the ship seaworthy is personal to the carrier even where the work has been delegated to a servant"[132]. The cases of *The Muncaster Castle*[133] and *Marc Rich & Co. v. Bishop Rock Marine Co Ltd (The Nicholas)*[134] identified that repairs or acts of the carrier to reduce risk will only suffice if adequate. In other words, in the case of dangerous goods the act of taking precautions will not be enough if they are not adequate to contain the harm. As this is a strict liability area, even taking these actions will not discharge the carrier of their due diligence. Instead, the period of voyage requires this due diligence to be exercised at all times. This is problematic because the HVR and Hamburg Rules do not cover the period before the ship has set sail and after the ship has arrived to its destination. Another significant problem with the

[129] *Jackson v Union Marine Insurance Co Ltd (1874) LR 10 CP 125; Sanday v British and Foreign Marine Insurance Co (1916) 1 AC 650*; *The Wagon Mound [1961] AC 388*
[130] *The Shell Bar (Fire)*, 224 F.2d 72, 1955 AMC 1429 (2 Cir. 1955)
[131] Carr, I (2009) *International Trade Law*, Taylor and Francis, pg. 238
[132] Ibid.
[133] *The Muncaster Castle* [1961] 1 Lloyd's Rep 57
[134] *Marc Rich & Co. v Bishop Rock Marine Co Ltd (The Nicholas)* [1995] 3 All ER 307

Hague-Visby and Hamburg Rules, which is that they exclude two types of cargo from the stowage protections:

1) live animals; and

2) goods being carried onto deck and stowed on deck[135].

The Rotterdam Rules have extended these protections, which mean goods on deck are now protected. This is directly applicable to the case of dangerous goods, because the IMDG Code requires certain dangerous goods to only be carried on deck[136]. However, the shipper is now liable for the loading and unloading of goods, but once the goods are on the ship the liability moves to the carrier. In other words, there is no longer a requirement for the carrier to set sail before the liability of the carrier is initiated. This is crucial in the case of the shipment of dangerous goods, because it ensures there is a logical approach to liability.

Under the Rotterdam Rules, Article 17 deals with the liability of carriers which has been much disputed in the case of the Hamburg and Hague-Visby Rules. The RR approach is based on a strict liability approach in regards to unseaworthiness[137]. Professor Johansson identifies that on the initial consideration that the Rotterdam Rules do simplify the approach to carrier liability, which includes:

> ***a) the deletion of the nautical fault defence;***
>
> ***b) converting the fire defence to a liability for proven negligence of the crew;***
>
> ***c) a rebuttable presumption of non-liability in case of certain enumerated events[…]***
>
> ***Presumably, simplicity will be preferred by stakeholders in the future. The alleged clarifications by many words of Article 17 may or may not assist the courts of law*** [138]***.***

[135] Wilson, JF (2008) *Carriage of Good by the Sea 6th Edition*, Longman., pg. 178-9; *Svenska Traktor v Maritime Agencies* [1953] 2 QB 295; *The Kapitan Petko Voivoda [2003] 2 Lloyds Rep 1*

[136] Bissell,T. (1970-71) "The operational realities of containerization and their effect on the "package" limitation and the "on-deck prohibition: review and suggestions", 45 (1970-71) *TLR 909*

[137] Tran, D (2008) *All clear for passage but are new rules an asset or liability?*, Thursday 6th March 2008, Available online at: http://www.globmaritime.com/news/rules-regulations/351-all-clear-for-passage-but-are-new-rules-an-asset-or-liability.html

[138] Johansson, SO, Oland, B, Ramberg, J, Tetley and Schmitt (2009) *A response to clarify certain concerns over the Rotterdam Rules* August 5th 2009, Available online at: http://www.mcgill.ca/files/maritimelaw/Summationpdf.pdf

Even so, when one considers the problems surrounding identifying a single system of liability for the shipper in regards to dangerous goods this approach has been essential[139].

This is because the duty to take reasonable care of the cargo has been separated from seaworthiness. This resulted in the position that the ship might not be fit, but is seaworthy. Therefore, this created an absurd situation. In response, the RR were developed in order to rectify this disjointed approach. Article 17 now relies on the presumption that a carrier liable for any loss or damage of goods, once loss or damage is proven[140]. This means that it is no longer necessary to show the damage is the fault of the carrier; rather the carrier must rebut this presumption by showing they were not the cause or there was an exception[141]. This means in the case of dangerous goods it is essential for the carrier to show the lack of actual or constructive knowledge that the goods were dangerous. In the case the carrier knew then he can only avoid responsibility if he "proves that he exercised due diligence to make the vessel seaworthy". However, this seaworthiness is extended to the whole duration of the voyage, as opposed to just prior to the voyage, which falls in with the requirements of SOLAS and the IMDG. Hence, the deficiencies of the rules in respect to the carrier, as well as the shipper, have been considered. This has developed a far better situation to deal with the modern concerns of dangerous goods; as well as the needs of modern commerce[142].

4.3 SUMMARY:

The implication is that the problems in respect to stowage have been rectified, because the requirement of due diligence has been extended. This means that it is no longer the case, under the Rotterdam Rules, that

> ***if the carriers are to escape liability, they prove that due diligence has been exercised not only by themselves and by their servants but also by a Lloyd's registered shipping surveyor. So where the surveyor is negligent, the shipowner [carrier] will be liable under the Hague-Visby Rules*** [143]***.***

[139] Diamond, A (2009) "The Rotterdam Rules" *L.M.C.L.Q 445*, 493; Baughen, S (2009) "Obligations Owed by the Shipper to the Carrier", *in*, D Rhidian Thomas Eds. (2009) *A New Convention For The Carriage Of Goods By Sea: The Rotterdam Rules*, Lawtext, pg. 185
[140] Wilson, JF (2008) *Carriage of Goods by Sea* Longmann, pg. 232
[141] Ibid.
[142] Berlingieri (2009) "Revisiting the Rotterdam Rules" *L.M.C.L.Q. 2010, 4(Nov),* 583-639, 583
[143] Carr, I (2009) *International Trade Law*, Taylor and Francis, pg. 238

As mentioned earlier, the *The Delfini* identifies the requirements of a seaworthy ship, which can result in a breach of stowage if there has been lesser breach. In the case of dangerous goods, the main issues will be:

1) appropriate equipment;

2) a properly manned ship to deal with the substance; and

3) the ship is capable of carrying the goods, i.e. it is seaworthy but not able to transport the dangerous substance safely.

In the case that the carrier knew of the dangerous substance, but breached the requirement of stowage then liability for breach of contract is owed[144]. The problem with stowage under the Hague-Visby and Hamburg Regimes is the exact nature of the loss, i.e. how far do the damages extend[145]. *The Giannis NK* identified that the carrier is only liable for the loss that happens during transit, which leaves a significant loophole in the case of the liability regime. This is especially significant if one considers the impact of a dangerous substance, especially to the environment and a third party.

By extending the liability, the Rotterdam Rules closed this loophole and the carrier has a greater degree of liability. This is important in relation to the transport of dangerous goods because it means that there is a case where liability is present at all times. This is very similar to the HNS' strict liability approach. The basis of the HNS Convention is that the carrier will always be liable for a breach, unless it can be shown that it was the direct act or omission of another[146]. Even so, this act or omission must have been "committed with the intent to cause such damage, or recklessly and with the knowledge that such damage would probably result"[147]. This means in the case of a shipper failing to meet their obligations in respect to SOLAS and the IMDG Code, then the shipper will have satisfied this exception. In the case of the Rotterdam Rules, there are a greater number of defences and exceptions, which may dilute the liability framework that is

[144] *Lickbarrow v. Mason* (1973) 2 TR 73
[145] *Leigh & Sillavan v. The Aliakom Shipping Company Ltd (The Aliakom)* [1986] AC 785
[146] Article 7(5) HNS Convention
[147] The 1976 LLMC, Art. 4

present[148]. Even so, there remains a strong argument in respect to the control of dangerous goods, because this is strictly interpreted. Therefore, this supports this research's argument, which is

The Rotterdam Rules provide a strong model to frame the liability elements of a separate protocol for the shipment of dangerous goods by sea.

[148] F. Berlingieri 'A comparative Analysis of the Hague-Visby Rules, the Hamburg Rules and the Rotterdam Rules' (2009), http://www.uncitral.org/pdf/english/workinggroups/wg_3/Berlingieri_paper_comparing_RR_Hamb_HVR.pdf; Tetley, W, *Marine Cargo Claims. Vol. 1.* (2008); Thomas, DR (ed), *The carriage of goods by sea under the Rotterdam rules* (2010; Informa: London)

PART FIVE: DISCUSSION -- ARE THE CURRENT PROVISIONS IN RELATION TO DANGEROUS GOODS *FIT FOR PURPOSE*?

The Rotterdam Rules have been identified as providing a strong framework to develop a separate and harmonised protocol for the shipment of goods by the sea; however is it necessary? There are arguments against harmonisation, because there should be the necessary flexibility within the contracting system to meet the needs of industry. This may be a legitimate argument in relation to the shipping of non-hazardous goods, but the dangerous goods pose the danger of significant environmental, economic and personal harm. The implication is that there must be a system that ensures the application of the IMDG is equally effective in all shipments of dangerous goods. As this research has highlighted the implementation of the IMDG into national carriage of goods by the sea laws is highly problematic, because of the different liabilities that have been afforded to the shipper and the carrier. Therefore, the following PART will evaluate the importance of implementing the Rotterdam Rules as the foundation for a protocol dealing specifically with the liability of shippers and carriers in the shipment of hazardous goods.

There is a current argument for and against further harmonisation, in general, in regards the carriage of goods by the sea with the recent implementation of the Rotterdam Rules[149]. One could argue that in the light of the IMDG this harmonisation has already occurred, because these general rules must "fit" with the IMDG. However, as Guner-Ozbeck states:

> ***From a legal point of view the IMDG was only of limited benefit. IMO Member states are entitled to participate in the adoption of resolutions […], which recommend the implementation of technical rules and standards not included in treaties. Parties to the UNCLOS [United Nations Convention on the Law of the Sea] are expected to conform to these rules and standards, obviously bearing in mind the need to adapt to the particular circumstances of each case. Accordingly, the IMDG Code was basically a recommendation to governments for adoption or use as the basis for national regulations in pursuance of their obligations under SOLAS 1974 [Safety at the Life of Sea Convention] and MARPOL 73/78 [International Convention for the Prevention of Pollution from Ships]*** [150]***.***

[149] Tetley, (2008)"Some general criticisms of the Rotterdam Rules", 14 JIML, 628; Berlingieri (2009) "Revisiting the Rotterdam Rules" *L.M.C.L.Q. 2010, 4(Nov),* 583-639, 583; Johansson, SO, Oland, B, Ramberg, J, Tetley and Schmitt (2009) *A response to clarify certain concerns over the Rotterdam Rules* August 5th 2009 http://www.mcgill.ca/files/maritimelaw/Summationpdf.pdf; Alba, M. (2008-2009), "Electronic Commerce Provisions in the UNCITRAL Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea", 44 (2008-2009) *Tex. Int'l L.J. 387*

[150] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea,* Springer, pg. 18

This highlights the problem of the variety of rules and national interpretations of carriage of goods by the sea, whereby the nature of harmonisation by the IDMG is diluted to merely an international standard of packaging.

Therefore, the problem lies in the fact that there are different interpretations and applications of what constitute a dangerous good within the general rules, i.e. the Hague-Visby, Hamburg and Rotterdam Rules. This is then compounded by the different system of liabilities for the shipper and carrier under these rules. Hence, the result in having lack of uniformity of the legal liability in respect to the general obligations of general cargo has a *knock-on* effect in relation to dangerous goods[151]. To a certain extent there has been harmonisation of packaging rules, in respect to certain dangerous goods, by the EU under Council Directive 67/548/EEC[152]. Even so, these regulations do not harmonise the general approach to carriage of goods by sea, which may be the backing of the Rotterdam Rules[153]. The EU Parliament

> ***Calls on Member States speedily to sign, ratify and implement the UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea, known as the 'Rotterdam Rules', establishing the new maritime liability system*** [154]***.***

The problem remains that this is a discretionary adoption of the Rotterdam Rules within the EU, which means that liability, duties and obligations of carriers and shippers may remain disjointed resulting in avoidance and circumvention of the IMDG rules. This has resulted in shippers being able to overreach the technical standards under the IMDG because the application of these standards is interpreted differently. The implication of this is an increased opportunity for

[151] Von Ziegler, A., (2008-2009) "The Liability of the Contracting Carrier", 44 (2008-2009) *Tex. Int'l L. J. 328*; Sturley M.F. (2008-09), "Modernizing and Reforming US Maritime Law: The Impact of the Rotterdam Rules in the United States", 44 (2008-09) *Tex. Int'l L.J. 427*

[152] Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labeling of dangerous substances, Available online at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31967L0548:EN:HTML

[153] European Parliament (2011) "Rotterdam Rules – European Parliament resolution on strategic goals and recommendations for the EU´s maritime transport policy until 2018" *2011/C 81 E/03,* para 11

[154] Ibid at para 11

loopholes to be created in order to circumvent the spirit and purpose of the IMDG[155]. Hence, this gives credence to the argument of the EU Parliament for harmonisation of the rules surrounding the obligations, duties, and liabilities of the shipper and the carrier.

The Hamburg and the Hague-Visby Rules remain the principle basis of maritime shipping law, because of their entrenchment in primary shipping countries, such as the UK and the USA. However, the newly approved Rotterdam Rules (2009) are becoming increasingly supported, which can be identified through the EU's recommendation of support. Hence, this illustrates the desire, in some quarters, for uniformity within maritime commercial law. One of the possible implications that the Rotterdam Rules may bring to the area of shipment of dangerous goods is that they could provide the key liability regime and definition of dangerous goods on which the IMDG is placed.

The duties of the shipper and carrier are essential to understand, because this is where the identification of liability, obligation and duty lies in regards to the shipment of dangerous goods by the sea. Even so, the current regime indicates that there is no single set of rules in these areas. For example, under Hague-Visby there is an implied duty for the shipper not to ship dangerous goods without proper consent and notification[156]. The effect of this implied duty is that it does not expressly deal with the duties of the shipper and carrier in relation to the shipment of dangerous goods. On the other hand, the Hamburg Rules does deal with the shipper and carrier in relation to the shipment of dangerous goods. The issue that this examination has considered is which regime is most effective in regards to the shipment of dangerous goods. In other words, is the common law approach of the implied approach introducing flexibility into the system or does it create uncertainty. Therefore, the benefit of using the comparative approach has allowed the researcher to identify the similarities, problems and effectiveness of the current legal regime.

[155] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea*, Springer pg. 18; Guner, MD (2007) "Transport of Hazardous and Noxious Goods by the Sea – The IMDG Code" *Hamburg Studies on Maritime Affairs 10(Part II) 95-109*, 95-6
[156] Carr, I (2009) *International Trade Law*, Taylor and Francis, pg. 238

Even so, it is essential to remember that the English approach to international conventions has always been one of flexibility[157]. The rationale for this approach is to allow a measure of balance between the primary principles of contractual autonomy within English law, whilst identifying the "general rules of acceptance" in the international arena[158]; whereby the IMDG could be exemplified as a *general rule of acceptance*.

As identified above, the issue of breach and circumvention of the technical standards under the IMDG is compounded by the fact that national laws have different definitions of what constitutes a dangerous good, even though the IMDG should have a harmonising effect through its technical standards and classification[159]. This means that international dangerous goods regulations and standards, such as the IMDG, are only as effective as their application within a specified jurisdiction. This research has illustrated that regulation of dangerous goods by the sea is greatly varied by the interplay of the various regulations which are present. This has been problematic because it has failed to identify a benchmark to ensure uniformity. The lack of uniformity, as well as the *hodgepodge* of laws has led to the argument whether there is [or should be] an all-encompassing set of rules for general carriage of goods by the sea.

The rationale for this recommendation is that it will provide a harmonising benchmark to make the IMDG regulations effective, whilst ensuring the flexibility for seemingly *innocuous* goods to be identified as dangerous within a specified set of circumstances. This was supported by the argument of Guner-Ozbeck that was considered, which is that there needs to be a completely separate regime for the transportation of dangerous goods by sea which is not related to general carriage[160]. This argument may be more persuasive in the modern regime of maritime transportation of goods, because there is

> ***tendency towards the specialisation of ships and their consequent growth in size […] A few decades ago, the bulk of chemical products were carried in packed form or in general cargo ships […] There are now in operation***

[157] Munday (1978) "The Uniform Interpretation of International Conventions" *ICLQ 27(450)*
[158] Carr, I (2009) *International Trade Law 4th Edition,* Routledge, pg. 231
[159] IMO (1990) "The Safe Transportation of Dangerous, Hazardous and Harmful Cargoes by Sea" *Europ. Transp L 25(747);*
[160] Guner-Ozbeck, M (2007) *The Carriage of Dangerous Goods by the Sea,* Springer pg. 2-3

chemical product carriers, carrier ships, vessels carrying tank containers, ro-ro vessels loading tank vehicles, lash ships and bulk carriers [161]***.***

This differentiation of general cargo ships from that of hazardous carriers opens up the possibility of developing a single international standard for the carriage of dangerous goods, which frames all aspects of shipment from bills of lading, duties of the shipper and carrier and the liability regime. Therefore, this supports the argument that there may be the need for an incorporation of a set of internationals rules, which are wholly dedicated to the shipment of dangerous goods may be the only road to create a legal regime that is *fit for purpose*.

CONCLUSION

The primary finding of this research is that there needs to be a separate legal regime for the shipment of dangerous goods by the sea which can be identified in the evolution of maritime transport and its growing importance in the modern commercial regime. In addition, there is a greater understanding of the environmental effects of shipping, as well as the release of dangerous goods on the marine ecosystem. The combination of these factors creates a persuasive argument that there needs to be a separate regime. Thus, this research recommends that there is wider exploration on the impact of other current legal regimes, i.e. the interplay of national law, in order to identify if a separate legal regime is necessary. Also it will be essential that there is also a study of how dangerous goods are treated under regimes that adopt the Rotterdam Rules.

Thus, this discussion has considered the Hague-Visby, Hamburg and Rotterdam Rules, in relation to the US and English legal approaches. The purpose of this exploration was to identify whether a harmonised approach, such as the RR in the general carriage of goods provides a better solution to the shipment of dangerous goods by the sea. One of the considerations that this research puts forward is the extension of the RR to a separate protocol for dangerous goods. The reasoning for this approach is that the RR have:

[161] Ibid, pg. 3

1) Brought a multimodal approach, which will create a more comprehensive approach to the door-to-door shipment of dangerous goods;
2) Provide a modern approach to the duties of shippers and carriers in relation to the shipment of dangerous goods, which includes an express definition; and
3) In addition there is international support for the Rules because it is door-to-door and not port-to-port. On key example of this support is the EU. The EU support provides a persuasive argument for a special protocol based on the Rotterdam Rules.

Hence, the aforementioned recommendations of support from the EU may result in English law incorporating these rules[162]. This provides a strong indication of the desire to harmonise the shipment of general goods. One can easily identify that if harmonisation is necessary in relation to general goods then it is even more important in the case of dangerous goods because loss extends past that of the cargo. Rather, the harm that can be caused in relation to dangerous goods extends to the threat of harm to the crew, the marine environment and other seafarers. Throughout this research the following issues have tested the effectiveness of current legal regime: undeclared goods, and why shippers (and in some cases carriers) continue to fail to declare the shipping of dangerous goods. This research has illustrated that even with Amendment 35 of the IMDG[163], the current regime of labelling is not enough because of the differentiation in regards to the duties and carrier at the national level continue to cause discord. Hence, coming back to argument that there needs to be a separate harmonised set of rules that relates to the shipment of dangerous goods. In fact, one could argue that the discord can only be resolved with the implementation of a body of law that relates wholly to the area of dangerous goods. For example, the issue of jurisdiction in determining a breach of duty to cargo, crew and third parties is governed by national provisions. Therefore, reverting back to the issue of how dangerous goods regulations have to somehow *fit together* international standards with national provisions, which creates uncertainty in what constitutes a dangerous goods.

[162] European Parliament (2011) "Rotterdam Rules – European Parliament resolution on strategic goals and recommendations for the EU´s maritime transport policy until 2018" *2011/C 81 E/03,* para 11
[163] Due to be implemented January 2012

It is important to remember that the English approach to international conventions has always been one of flexibility[164]. However, this flexibility may not be meeting the safety and protective approach in regards to the shipment of hazardous goods. On the other hand, one must consider the approach of US law which has evolved with international standards. Therefore, the implication is that there will be an evolutionary adoption of the RR. In fact, there is a strong industry backing in the US, which means that the freedom to contract provisions will enforce the adoption of the RR[165]. As Sturley[166] argues

> ***U.S. industry today has already achieved a broad consensus in favor of the Rotterdam Rules as part of the negotiation process. That was the primary force behind the success of the negotiations. Now that the Convention has been completed, it is time for the government to recognize that consensus, sign the final instrument, and ratify the new regime as quickly as possible*** [167]***.***

Thus, this supports the argument that the RR will provide the necessary framework to place a single protocol for the shipment of dangerous goods.

The rationale for this approach is to allow a measure of balance between the primary principles of contractual autonomy national law, whilst identifying the "general rules of acceptance" in the International arena[168]; whereby the IMDG could be exemplified as a *general rule of acceptance* within the framework of the Rotterdam Rules. As Tetley argues

> ***If the elusive dream of safer ships and cleaner seas is to come true on all the oceans of the planet in the twenty-first century, in the field of marine pollution control, as in other areas of contemporary maritime law, international thinking and solutions remain of paramount importance*** [169]***.***

[164] Munday (1978) "The Uniform Interpretation of International Conventions" *ICLQ 27(450)*
[165] Sturley, M (2006) "Freedom of Contract and the Ironic Story of Section 7 of the Carriage of Goods by Sea Act*", 4 Benedict's Mar. Bull. 201, 202–08*
[166] Sturley, M (2009) "Modernizing and Reforming US Maritime Law: The Impact of the Rotterdam Rules in the United States" *Texas International Law Journal 44(426)*, pg. 455
[167] Ibid, pg. 455
[168] Carr, I (2009) *International Trade Law 4th Edition,* Routledge, pg. 231
[169] Tetley (2002) *International* Maritime And Admiralty Law, (2002) International Shipping Publications, Pg. 467

APPENDIXES

APPENDIX 1: HAGUE-VISBY RULES

Hague-Visby Rules

Article I

Definitions

In these Rules the following expressions have the meanings hereby assigned to them respectively, that is to say,

(*a*) "carrier" includes the owner or the charterer who enters into a contract of carriage with a shipper;

(*b*) "contract of carriage" applies only to contracts of carriage covered by a bill of lading or any similar document of title, in so far as such document relates to the carriage of goods by water, including any bill of lading or any similar document as aforesaid issued under or pursuant to a charter-party from the moment at which such bill of lading or similar document of title regulates the relations between a carrier and a holder of the same;

(*c*) "goods" includes goods, wares, merchandise and articles of every kind whatsoever, except live animals and cargo which by the contract of carriage is stated as being carried on deck and is so carried;

(*d*) "ship" means any vessel used for the carriage of goods by water;

(*e*) "carriage of goods" covers the period from the time when the goods are loaded on to the time they are discharged from the ship.

Article II

Risks

Subject to the provisions of Article VI, under every contract of carriage of goods by water the carrier, in relation to the loading, handling, stowage, carriage, custody, care and discharge of such goods, shall be subject to the responsibilities and liabilities and entitled to the rights and immunities hereinafter set forth.

Article III

Responsibilities and Liabilities

1. The carrier shall be bound, before and at the beginning of the voyage, to exercise due diligence to

(*a*) make the ship seaworthy;

(*b*) properly man, equip and supply the ship;

(*c*) make the holds, refrigerating and cool chambers, and all other parts of the ship in which goods are carried, fit and safe for their reception, carriage and preservation.

2. Subject to the provisions of Article IV, the carrier shall properly and carefully load, handle, stow, carry, keep, care for and discharge the goods carried.

3. After receiving the goods into his charge, the carrier, or the master or agent of the carrier, shall, on demand of the shipper, issue to the shipper a bill of lading showing among other things

(*a*) the leading marks necessary for identification of the goods as the same are furnished in writing by the shipper before the loading of such goods starts, provided such marks are stamped or otherwise shown clearly upon the goods if uncovered, or on the cases or coverings in which such goods are contained, in such a manner as should ordinarily remain legible until the end of the voyage;

(*b*) either the number of packages or pieces, or the quantity, or weight, as the case may be, as furnished in writing by the shipper;

(*c*) the apparent order and condition of the goods:

Provided that no carrier, master or agent of the carrier shall be bound to state or show in the bill of lading any marks, number, quantity, or weight which he has reasonable ground for suspecting not accurately to represent the goods actually received or which he has had no reasonable means of checking.

4. Such a bill of lading shall be *prima facie* evidence of the receipt by the carrier of the goods as therein described in accordance with paragraphs 3(*a*), (*b*) and (*c*).

However, proof to the contrary shall not be admissible when the bill of lading has been transferred to a third party acting in good faith.

5. The shipper shall be deemed to have guaranteed to the carrier the accuracy at the time of shipment of the marks, number, quantity and weight, as furnished by him, and the shipper shall indemnify the carrier against all loss, damages and expenses arising or resulting from inaccuracies in such particulars. The right of the carrier to such indemnity shall in no way limit his responsibility and liability under the contract of carriage to any person other than the shipper.

6. Unless notice of loss or damage and the general nature of such loss or damage be given in writing to the carrier or his agent at the port of discharge before or at the time of the removal of the goods into the custody of the person entitled to delivery thereof under the contract of carriage, or, if the loss or damage be not apparent, within three days, such removal shall be *prima facie* evidence of the delivery by the carrier of the goods as described in the bill of lading.

The notice in writing need not be given if the state of the goods has at the time of their receipt been the subject of joint survey or inspection.

Subject to paragraph 6*bis* the carrier and the ship shall in any event be discharged from all liability whatsoever in respect of the goods, unless suit is brought within one year of their delivery or of the date when they should have been delivered. This period may, however, be extended if the parties so agree after the cause of action has arisen.

In the case of any actual or apprehended loss or damage the carrier and the receiver shall give all reasonable facilities to each other for inspecting and tallying the goods.

6.*bis* An action for indemnity against a third person may be brought even after the expiration of the year provided for in the preceding paragraph if brought within the time allowed by the law of the Court seized of the case. However, the time allowed shall be not less than three months, commencing from the day when the person bringing such action for indemnity has settled the claim or has been served with process in the action against himself.

7. After the goods are loaded the bill of lading to be issued by the carrier, master or agent of the carrier, to the shipper shall, if the shipper so demands, be a "shipped" bill of lading, provided that if the shipper shall have previously taken up any document of title to such goods, he shall surrender the same as against the issue of the "shipped" bill of lading, but at the option of the carrier such document of title may be noted at the port of shipment by the carrier, master, or agent with the name or names of the ship or ships upon which the goods have been shipped and the date or dates of shipment, and when so noted the same shall for the purpose of this Article be deemed to constitute a "shipped" bill of lading.

8. Any clause, covenant or agreement in a contract of carriage relieving the carrier or the ship from liability for loss or damage to or in connection with goods arising from negligence, fault or failure in the duties and obligations provided in this Article or lessening such liability otherwise than as provided in these Rules, shall be null and void and of no effect.

A benefit of insurance or similar clause shall be deemed to be a clause relieving the carrier from liability.

Article IV

Rights and Immunities

1. Neither the carrier nor the ship shall be liable for loss or damage arising or resulting from unseaworthiness unless caused by want of due diligence on the part of the carrier to make the ship seaworthy, and to secure that the ship is properly manned, equipped and supplied, and to make the holds, refrigerating and cool chambers and all other parts of the ship in which goods are carried fit and safe for their reception, carriage and preservation in accordance with the provisions of paragraph 1 of Article III.

Whenever loss or damage has resulted from unseaworthiness, the burden of proving the exercise of due diligence shall be on the carrier or other person claiming exemption under this article.

2. Neither the carrier nor the ship shall be responsible for loss or damage arising or resulting from

(*a*) act, neglect, or default of the master, mariner, pilot or the servants of the carrier in the navigation or in the management of the ship;

(*b*) fire, unless caused by the actual fault or privity of the carrier;

(*c*) perils, dangers and accidents of the sea or other navigable waters;

(*d*) act of God;

(*e*) act of war;

(*f*) act of public enemies;

(*g*) arrest or restraint of princes, rulers or people, or seizure under legal process;

(*h*) quarantine restrictions;

(*i*) act or omission of the shipper or owner of the goods, his agent or representative;

(*j*) strikes or lock-outs or stoppage or restraint of labour from whatever cause, whether partial or general;

(*k*) riots and civil commotions;

(*l*) saving or attempting to save life or property at sea;

(*m*) wastage in bulk or weight or any other loss or damage arising from inherent defect, quality or vice of the goods;

(*n*) insufficiency of packing;

(*o*) insufficiency or inadequacy of marks;

(*p*) latent defects not discoverable by due diligence;

(*q*) any other cause arising without the actual fault and privity of the carrier, or without the fault or neglect of the agents or servants of the carrier, but the burden of proof shall be on the person claiming the benefit of this exception to show that neither the actual fault or privity of the carrier nor the fault or neglect of the agents or servants of the carrier contributed to the loss or damage.

3. The shipper shall not be responsible for loss or damage sustained by the carrier or the ship arising or resulting from any cause without the act, fault or neglect of the shipper, his agents or his servants.

4. Any deviation in saving or attempting to save life or property at sea or any reasonable deviation shall not be deemed to be an infringement or breach of these Rules or of the contract of carriage, and the carrier shall not be liable for any loss or damage resulting therefrom.

5. (*a*) Unless the nature and value of such goods have been declared by the shipper before shipment and inserted in the bill of lading, neither the carrier nor the ship shall in any event be or become liable for any loss or damage to or in connection with the goods in an amount exceeding 666.67 units of account per package or unit or 2 units of account per kilogramme of gross weight of the goods lost or damaged, whichever is the higher.

(*b*) The total amount recoverable shall be calculated by reference to the value of such goods at the place and time at which the goods are discharged from the ship in accordance with the contract or should have been so discharged.

The value of the goods shall be fixed according to the commodity exchange price, or, if there be no such price, according to the current market price, or, if there be no commodity exchange price or current market price, by reference to the normal value of goods of the same kind and quality.

(*c*) Where a container, pallet or similar article of transport is used to consolidate goods, the number of packages or units enumerated in the bill of lading as packed in such article of transport shall be deemed the number of packages or units for the purpose of this paragraph as far as these packages or units are concerned. Except as aforesaid such article of transport shall be considered the package or unit.

(*d*) The unit of account mentioned in this Article is the Special Drawing Right as defined by the International Monetary Fund. The amounts mentioned in sub-paragraph (*a*) of this paragraph shall be converted into national currency on the basis of the value of that currency on the date to be determined by the law of the Court seized of the case. The value of the national currency, in terms of the Special Drawing Right, of a State which is a member of the International Monetary Fund, shall be calculated in accordance with the method of valuation applied by the International Monetary Fund in effect at the date in question for its operations and transactions. The value of the national currency, in terms of the Special Drawing Right, of

a State which is not a member of the International Monetary Fund, shall be calculated in a manner determined by that State.

Nevertheless, a State which is not a member of the International Monetary Fund and whose law does not permit the application of the provisions of the preceding sentences may, at the time of ratification of the Protocol of 1979 or accession thereto or at any time thereafter, declare that the limits of liability provided for in this Convention to be applied in its territory shall be fixed as follows:

(i) in respect of the amount of 666.67 units of account mentioned in sub-paragraph (*a*) of paragraph 5 of this Article, 10,000 monetary units;

(ii) in respect of the amount of 2 units of account mentioned in sub-paragraph (*a*) of paragraph 5 of this Article, 30 monetary units.

The monetary unit referred to in the preceding sentence corresponds to 65.5 milligrammes of gold of millesimal fineness 900. The conversion of the amounts specified in that sentence into the national currency shall be made according to the law of the State concerned. The calculation and the conversion mentioned in the preceding sentences shall be made in such a manner as to express in the national currency of that State as far as possible the same real value for the amounts in sub-paragraph (*a*) of paragraph 5 of this Article as is expressed there in units of account.

States shall communicate to the depositary the manner of calculation or the result of the conversion as the case may be, when depositing an instrument of ratification of the Protocol of 1979 or of accession thereto and whenever there is a change in either.

(*e*) Neither the carrier nor the ship shall be entitled to the benefit of the limitation of liability provided for in this paragraph if it is proved that the damage resulted from an act or omission of the carrier done with intent to cause damage, or recklessly and with knowledge that damage would probably result.

(*f*) The declaration mentioned in sub-paragraph (*a*) of this paragraph, if embodied in the bill of lading, shall be *prima facie* evidence, but shall not be binding or conclusive on the carrier.

(*g*) By agreement between the carrier, master or agent of the carrier and the shipper other maximum amounts than those mentioned in sub-paragraph (*a*) of this paragraph may be fixed, provided that no maximum amount so fixed shall be less than the appropriate maximum mentioned in that sub-paragraph.

(*h*) Neither the carrier nor the ship shall be responsible in any event for loss or damage to, or in connection with, goods if the nature or value thereof has been knowingly mis-stated by the shipper in the bill of lading.

6. Goods of an inflammable, explosive or dangerous nature to the shipment whereof the carrier, master or agent of the carrier has not consented, with knowledge of their nature and

character, may at any time before discharge be landed at any place or destroyed or rendered innocuous by the carrier without compensation, and the shipper of such goods shall be liable for all damages and expenses directly or indirectly arising out of or resulting from such shipment.

If any such goods shipped with such knowledge and consent shall become a danger to the ship or cargo, they may in like manner be landed at any place or destroyed or rendered innocuous by the carrier without liability on the part of the carrier except to general average, if any.

Article IVbis

Application of Defences and Limits of Liability

1. The defences and limits of liability provided for in these Rules shall apply in any action against the carrier in respect of loss or damage to goods covered by a contract of carriage whether the action be founded in contract or in tort.

2. If such an action is brought against a servant or agent of the carrier (such servant or agent not being an independent contractor), such servant or agent shall be entitled to avail himself of the defences and limits of liability which the carrier is entitled to invoke under these Rules.

3. The aggregate of the amounts recoverable from the carrier, and such servants and agents, shall in no case exceed the limit provided for in these Rules.

4. Nevertheless, a servant or agent of the carrier shall not be entitled to avail himself of the provisions of this Article, if it is proved that the damage resulted from an act or omission of the servant or agent done with intent to cause damage or recklessly and with knowledge that damage would probably result.

Article V

Surrender of Rights and Immunities, and Increase of Responsibilities and Liabilities

A carrier shall be at liberty to surrender in whole or in part all or any of his rights and immunities or to increase any of his responsibilities and liabilities under the Rules contained in any of these Articles, provided such surrender or increase shall be embodied in the bill of lading issued to the shipper.

The provisions of these Rules shall not be applicable to charter-parties, but if bills of lading are issued in the case of a ship under a charter-party they shall comply with the terms of these Rules. Nothing in these Rules shall be held to prevent the insertion in a bill of lading of any lawful provision regarding general average.

Article VI

Special Conditions

Notwithstanding the provisions of the preceding Articles, a carrier, master or agent of the carrier and a shipper shall in regard to any particular goods be at liberty to enter into any agreement in any terms as to the responsibility and liability of the carrier for such goods, and as to the rights and immunities of the carrier in respect of such goods, or his obligation as to seaworthiness, so far as this stipulation is not contrary to public policy, or the care or diligence of his servants or agents in regard to the loading, handling, stowage, carriage, custody, care and discharge of the goods carried by water, provided that in this case no bill of lading has been or shall be issued and that the terms agreed shall be embodied in a receipt which shall be a non-negotiable document and shall be marked as such.

Any agreement so entered into shall have full legal effect.

Provided that this Article shall not apply to ordinary commercial shipments made in the ordinary course of trade, but only to other shipments where the character or condition of the property to be carried or the circumstances, terms and conditions under which the carriage is to be performed are such as reasonably to justify a special agreement.

Article VII

Limitations on the Application of the Rules

Nothing herein contained shall prevent a carrier or a shipper from entering into any agreement, stipulation, condition, reservation or exemption as to the responsibility and liability of the carrier or the ship for the loss or damage to, or in connection with the custody and care and handling of goods prior to the loading on and subsequent to the discharge from the ship on which the goods are carried by water.

Article VIII

Limitation of Liability

The provisions of these Rules shall not affect the rights and obligations of the carrier under any statute for the time being in force relating to the limitation of the liability of owners of vessels.

Article IX

Liability for Nuclear Damage

These Rules shall not affect the provisions of any international Convention or national law governing liability for nuclear damage.

Article X

Application

The provisions of these Rules shall apply to every bill of lading relating to the carriage of goods between ports in two different States if:

(*a*) the bill of lading is issued in a Contracting State, or

(*b*) the carriage is from a port in a Contracting State, or

(*c*) the contract contained in or evidenced by the bill of lading provides that these Rules or legislation of any State giving effect to them are to govern the contract,

whatever may be the nationality of the ship, the carrier, the shipper, the consignee, or any other interested person.

APPENDIX 2: HAMBURG RULES

Hamburg Rules

HAMBURG RULES
UNITED NATIONS CONVENTION ON THE CARRIAGE OF GOODS BY SEA, 1978

Preamble

THE STATES PARTIES TO THIS CONVENTION,

HAVING RECOGNIZED the desirability of determining by agreement certain rules relating to the carriage of goods by sea,

HAVE DECIDED to conclude a Convention for this purpose and have thereto agreed as follows:

PART I
GENERAL PROVISIONS

Article 1

Definitions

In this Convention:

1. "Carrier" means any person by whom or in whose name a contract of carriage of goods by sea has been concluded with a shipper.

2. "Actual carrier" means any person to whom the performance of the carriage of the goods, or of part of the carriage, has been entrusted by the carrier, and includes any other person to whom such performance has been entrusted.

3. "Shipper" means any person by whom or in whose name or on whose behalf a contract of carriage of goods by sea has been concluded with a carrier, or any person by whom or in whose name or on whose behalf the goods are actually delivered to the carrier in relation to the contract of carriage by sea.

4. "Consignee" means the person entitled to take delivery of the goods.

5. "Goods" includes live animals; where the goods are consolidated in a container, pallet or similar article of transport or where they are packed, "goods" includes such article of transport or packaging if supplied by the shipper.

6. "Contract of carriage by sea" means any contract whereby the carrier undertakes against payment of freight to carry goods by sea from one port to another; however, a contract which involves carriage by sea and also carriage by some other means is deemed to be a contract of carriage by sea for the purposes of this Convention only in so far as it relates to the carriage by sea.

7. "Bill of lading" means a document which evidences a contract of carriage by sea and the taking over or loading of the goods by the carrier, and by which the carrier undertakes to deliver the goods against surrender of the document. A provision in the document that the goods are to be delivered to the order of a named person, or to order, or to bearer, constitutes such an undertaking.

8. "Writing" includes, *inter alia*, telegram and telex.

Article 2

Scope of application

1. The provisions of this Convention are applicable to all contracts of carriage by sea between two different States, if:

(*a*) the port of loading as provided for in the contract of carriage by sea is located in a Contracting State, or

(*b*) the port of discharge as provided for in the contract of carriage by sea is located in a Contracting State, or

(*c*) one of the optional ports of discharge provided for in the contract of carriage by sea is the actual port of discharge and such port is located in a Contracting State, or

(*d*) the bill of lading or other document evidencing the contract of carriage by sea is issued in a Contracting State, or

(*e*) the bill of lading or other document evidencing the contract of carriage by sea provides that the provisions of this Convention or the legislation of any State giving effect to them are to govern the contract.

2. The provisions of this Convention are applicable without regard to the nationality of the ship, the carrier, the actual carrier, the shipper, the consignee or any other interested person.

3. The provisions of this Convention are not applicable to charter-parties. However, where a bill of lading is issued pursuant to a charter-party, the provisions of the Convention apply to such a bill of lading if it governs the relation between the carrier and the holder of the bill of lading, not being the charterer.

4. If a contract provides for future carriage of goods in a series of shipments during an agreed period, the provisions of this Convention apply to each shipment. However, where a shipment is made under a charter-party, the provisions of paragraph 3 of this article apply.

Article 3

Interpretation of the Convention

In the interpretation and application of the provisions of this Convention regard shall be had to its international character and to the need to promote uniformity.

PART II
LIABILITY OF THE CARRIER

Article 4

Period of responsibility

1. The responsibility of the carrier for the goods under this Convention covers the period during which the carrier is in charge of the goods at the port of loading, during the carriage and at the port of discharge.

2. For the purpose of paragraph 1 of this article, the carrier is deemed to be in charge of the goods

(*a*) from the time he has taken over the goods from:

(i) the shipper, or a person acting on his behalf; or

(ii) an authority or other third party to whom, pursuant to law or regulations applicable at the port of loading, the goods must be handed over for shipment;

(*b*) until the time he has delivered the goods:

(i) by handing over the goods to the consignee; or

(ii) in cases where the consignee does not receive the goods from the carrier, by placing them at the disposal of the consignee in accordance with the contract or with the law or with the usage of the particular trade, applicable at the port of discharge; or

(iii) by handing over the goods to an authority or other third party to whom, pursuant to law or regulations applicable at the port of discharge, the goods must be handed over.

3. In paragraphs 1 and 2 of this article, reference to the carrier or to the consignee means, in addition to the carrier or the consignee, the servants or agents, respectively of the carrier or the consignee.

Article 5

Basis of liability

1. The carrier is liable for loss resulting from loss of or damage to the goods, as well as from delay in delivery, if the occurrence which caused the loss, damage or delay took place while the goods were in his charge as defined in article 4, unless the carrier proves that he, his servants or agents took all measures that could reasonably be required to avoid the occurrence and its consequences.

2. Delay in delivery occurs when the goods have not been delivered at the port of discharge provided for in the contract of carriage by sea within the time expressly agreed upon or, in the absence of such agreement, within the time which it would be reasonable to require of a diligent carrier, having regard to the circumstances of the case.

3. The person entitled to make a claim for the loss of goods may treat the goods as lost if they have not been delivered as required by article 4 within 60 consecutive days following the expiry of the time for delivery according to paragraph 2 of this article.

4. (*a*) The carrier is liable

(i) for loss of or damage to the goods or delay in delivery caused by fire, if the claimant proves that the fire arose from fault or neglect on the part of the carrier, his servants or agents;

(ii) for such loss, damage or delay in delivery which is proved by the claimant to have resulted from the fault or neglect of the carrier, his servants or agents, in taking all measures that could reasonably be required to put out the fire and avoid or mitigate its consequences.

(*b*) In case of fire on board the ship affecting the goods, if the claimant or the carrier so desires, a survey in accordance with shipping practices must be held into the cause and circumstances of the fire, and a copy of the surveyor's report shall be made available on demand to the carrier and the claimant.

5. With respect to live animals, the carrier is not liable for loss, damage or delay in delivery resulting from any special risks inherent in that kind of carriage. If the carrier proves that he has complied with any special instructions given to him by the shipper respecting the animals and that, in the circumstances of the case, the loss, damage or delay in delivery could be attributed to such risks, it is presumed that the loss, damage or delay in delivery was so caused, unless there is proof that all or a part of the loss, damage or delay in delivery resulted from fault or neglect on the part of the carrier, his servants or agents.

6. The carrier is not liable, except in general average, where loss, damage or delay in delivery resulted from measures to save life or from reasonable measures to save property at sea.

7. Where fault or neglect on the part of the carrier, his servants or agents combines with another cause to produce loss, damage or delay in delivery the carrier is liable only to the

extent that the loss, damage or delay in delivery is attributable to such fault or neglect, provided that the carrier proves the amount of the loss, damage or delay in delivery not attributable thereto.

Article 6

Limits of liability

1. (*a*) The liability of the carrier for loss resulting from loss of or damage to goods according to the provisions of article 5 is limited to an amount equivalent to 835 units of account per package or other shipping unit or 2.5 units of account per kilogramme of gross weight of the goods lost or damaged, whichever is the higher.

(*b*) The liability of the carrier for delay in delivery according to the provisions of article 5 is limited to an amount equivalent to two and a half times the freight payable for the goods delayed, but not exceeding the total freight payable under the contract of carriage of goods by sea.

(*c*) In no case shall the aggregate liability of the carrier, under both subparagraphs (*a*) and (*b*) of this paragraph, exceed the limitation which would be established under subparagraph (*a*) of this paragraph for total loss of the goods with respect to which such liability was incurred.

2. For the purpose of calculating which amount is the higher in accordance with paragraph 1(*a*) of this article, the following rules apply:

(*a*) Where a container, pallet or similar article of transport is used to consolidate goods, the package or other shipping units enumerated in the bill of lading, if issued, or otherwise in any other document evidencing the contract of carriage by sea, as packed in such article of transport are deemed packages or shipping units. Except as aforesaid the goods in such article of transport are deemed one shipping unit.

(*b*) In cases where the article of transport itself has been lost or damaged, that article of transport, if not owned or otherwise supplied by the carrier, is considered one separate shipping unit.

3. Unit of account means the unit of account mentioned in article 26.

4. By agreement between the carrier and the shipper, limits of liability exceeding those provided for in paragraph 1 may be fixed.

Article 7

Application to non-contractual claims

1. The defences and limits of liability provided for in this Convention apply in any action against the carrier in respect of loss or damage to the goods covered by the contract of carriage

by sea, as well as of delay in delivery whether the action is founded in contract, in tort or otherwise.

2. If such an action is brought against a servant or agent of the carrier, such servant or agent, if he proves that he acted within the scope of his employment, is entitled to avail himself of the defences and limits of liability which the carrier is entitled to invoke under this Convention.

3. Except as provided in article 8, the aggregate of the amounts recoverable from the carrier and from any persons referred to in paragraph 2 of this article shall not exceed the limits of liability provided for in this Convention.

Article 8

Loss of right to limit responsibility

1. The carrier is not entitled to the benefit of the limitation of liability provided for in article 6 if it is proved that the loss, damage or delay in delivery resulted from an act or omission of the carrier done with the intent to cause such loss, damage or delay, or recklessly and with knowledge that such loss, damage or delay would probably result.

2. Notwithstanding the provisions of paragraph 2 of article 7, a servant or agent of the carrier is not entitled to the benefit of the limitation of liability provided for in article 6 if it is proved that the loss, damage or delay in delivery resulted from an act or omission of such servant or agent, done with the intent to cause such loss, damage or delay, or recklessly and with knowledge that such loss, damage or delay would probably result.

Article 9

Deck cargo

1. The carrier is entitled to carry the goods on deck only if such carriage is in accordance with an agreement with the shipper or with the usage of the particular trade or is required by statutory rules or regulations.

2. If the carrier and the shipper have agreed that the goods shall or may be carried on deck, the carrier must insert in the bill of lading or other document evidencing the contract of carriage by sea a statement to that effect. In the absence of such a statement the carrier has the burden of proving that an agreement for carriage on deck has been entered into; however, the carrier is not entitled to invoke such an agreement against a third party, including a consignee, who has acquired the bill of lading in good faith.

3. Where the goods have been carried on deck contrary to the provisions of paragraph 1 of this article or where the carrier may not under paragraph 2 of this article invoke an agreement for carriage on deck, the carrier, notwithstanding the provisions of paragraph 1 of article 5, is liable for loss of or damage to the goods, as well as for delay in delivery, resulting solely from

the carriage on deck, and the extent of his liability is to be determined in accordance with the provisions of article 6 or article 8 of this Convention, as the case may be.

4. Carriage of goods on deck contrary to express agreement for carriage under deck is deemed to be an act or omission of the carrier within the meaning of article 8.

Article 10

Liability of the carrier and actual carrier

1. Where the performance of the carriage or part thereof has been entrusted to an actual carrier, whether or not in pursuance of a liberty under the contract of carriage by sea to do so, the carrier nevertheless remains responsible for the entire carriage according to the provisions of this Convention. The carrier is responsible, in relation to the carriage performed by the actual carrier, for the acts and omissions of the actual carrier and of his servants and agents acting within the scope of their employment.

2. All the provisions of this Convention governing the responsibility of the carrier also apply to the responsibility of the actual carrier for the carriage performed by him. The provisions of paragraphs 2 and 3 of article 7 and of paragraph 2 of article 8 apply if an action is brought against a servant or agent of the actual carrier.

3. Any special agreement under which the carrier assumes obligations not imposed by this Convention or waives rights conferred by this Convention affects the actual carrier only if agreed to by him expressly and in writing. Whether or not the actual carrier has so agreed, the carrier nevertheless remains bound by the obligations or waivers resulting from such special agreement.

4. Where and to the extent that both the carrier and the actual carrier are liable, their liability is joint and several.

5. The aggregate of the amounts recoverable from the carrier, the actual carrier and their servants and agents shall not exceed the limits of liability provided for in this Convention.

6. Nothing in this article shall prejudice any right of recourse as between the carrier and the actual carrier.

Article 11

Through carriage

1. Notwithstanding the provisions of paragraph 1 of article 10, where a contract of carriage by sea provides explicitly that a specified part of the carriage covered by the said contract is to be performed by a named person other than the carrier, the contract may also provide that the carrier is not liable for loss, damage or delay in delivery caused by an occurrence which takes place while the goods are in the charge of the actual carrier during such part of the carriage.

Nevertheless, any stipulation limiting or excluding such liability is without effect if no judicial proceedings can be instituted against the actual carrier in a court competent under paragraph 1 or 2 of article 21. The burden of proving that any loss, damage or delay in delivery has been caused by such an occurrence rests upon the carrier.

2. The actual carrier is responsible in accordance with the provisions of paragraph 2 of article 10 for loss, damage or delay in delivery caused by an occurrence which takes place while the goods are in his charge.

PART III
LIABILITY OF THE SHIPPER

Article 12

General rule

The shipper is not liable for loss sustained by the carrier or the actual carrier, or for damage sustained by the ship, unless such loss or damage was caused by the fault or neglect of the shipper, his servants or agents. Nor is any servant or agent of the shipper liable for such loss or damage unless the loss or damage was caused by fault or neglect on his part.

Article 13

Special rules on dangerous goods

1. The shipper must mark or label in a suitable manner dangerous goods as dangerous.

2. Where the shipper hands over dangerous goods to the carrier or an actual carrier, as the case may be, the shipper must inform him of the dangerous character of the goods and, if necessary, of the precautions to be taken. If the shipper fails to do so and such carrier or actual carrier does not otherwise have knowledge of their dangerous character:

(*a*) the shipper is liable to the carrier and any actual carrier for the loss resulting from the shipment of such goods, and

(*b*) the goods may at any time be unloaded, destroyed or rendered innocuous, as the circumstances may require, without payment of compensation.

3. The provisions of paragraph 2 of this article may not be invoked by any person if during the carriage he has taken the goods in his charge with knowledge of their dangerous character.

4. If, in cases where the provisions of paragraph 2, subparagraph (*b*), of this article do not apply or may not be invoked, dangerous goods become an actual danger to life or property, they may be unloaded, destroyed or rendered innocuous, as the circumstances may require, without payment of compensation except where there is an obligation to contribute in general average or where the carrier is liable in accordance with the provisions of article 5.

Article 14

Issue of bill of lading

1. When the carrier or the actual carrier takes the goods in his charge, the carrier must, on demand of the shipper, issue to the shipper a bill of lading.

2. The bill of lading may be signed by a person having authority from the carrier. A bill of lading signed by the master of the ship carrying the goods is deemed to have been signed on behalf of the carrier.

3. The signature on the bill of lading may be in handwriting, printed in facsimile, perforated, stamped, in symbols, or made by an other mechanical or electronic means, if not inconsistent with the law of the country where the bill of lading is issued.

Article 15

Contents of bill of lading

1. The bill of lading must include, *inter alia*, the following particulars:

(*a*) the general nature of the goods, the leading marks necessary for identification of the goods, an express statement, if applicable, as to the dangerous character of the goods, the number of packages or pieces, and the weight of the goods or their quantity otherwise expressed, all such particulars as furnished by the shipper;

(*b*) the apparent condition of the goods;

(*c*) the name and principal place of business of the carrier;

(*d*) the name of the shipper;

(*e*) the consignee if named by the shipper;

(*f*) the port of loading under the contract of carriage by sea and the date on which the goods were taken over by the carrier at the port of loading;

(*g*) the port of discharge under the contract of carriage by sea;

(*h*) the number of originals of the bill of lading, if more than one;

(*i*) the place of issuance of the bill of lading;

(*j*) the signature of the carrier or a person acting on his behalf;

(*k*) the freight to the extent payable by the consignee or other indication that freight is payable by him;

(*l*) the statement referred to in paragraph 3 of article 23;

(*m*) the statement, if applicable, that the goods shall or may be carried on deck;

(*n*) the date or the period of delivery of the goods at the port of discharge if expressly agreed upon between the parties; and

(*o*) any increased limit or limits of liability where agreed in accordance with paragraph 4 of article 6.

2. After the goods have been loaded on board, if the shipper so demands, the carrier must issue to the shipper a "shipped" bill of lading which, in addition to the particulars required under paragraph 1 of this article, must state that the goods are on board a named ship or ships, and the date or dates of loading. If the carrier has previously issued to the shipper a bill of lading or other document of title with resect to any of such goods, on request of the carrier, the shipper must surrender such document in exchange for a "shipped" bill of lading. The carrier may amend any previously issued document in order to meet the shipper's demand for a "shipped" bill of lading if, as amended, such document includes all the information required to be contained in a "shipped" bill of lading.

3. The absence in the bill of lading of one or more particulars referred to in this article does not affect the legal character of the document as a bill of lading provided that it nevertheless meets the requirements set out in paragraph 7 of article 1.

Article 16

Bills of lading: reservations and evidentiary effect

1. If the bill of lading contains particulars concerning the general nature, leading marks, number of packages or pieces, weight or quantity of the goods which the carrier or other person issuing the bill of lading on his behalf knows or has reasonable grounds to suspect do not accurately represent the goods actually taken over or, where a "shipped" bill of lading is issued, loaded, or if he had no reasonable means of checking such particulars, the carrier or such other person must insert in the bill of lading a reservation specifying these inaccuracies, grounds of suspicion or the absence of reasonable means of checking.

2. If the carrier or other person issuing the bill of lading on his behalf fails to note on the bill of lading the apparent condition of the goods, he is deemed to have noted on the bill of lading that the goods were in apparent good condition.

3. Except for particulars in respect of which and to the extent to which a reservation permitted under paragraph 1 of this article has been entered:

(*a*) the bill of lading is *prima facie* evidence of the taking over or, where a "shipped" bill of lading is issued, loading, by the carrier of the goods as described in the bill of lading; and

(*b*) proof to the contrary by the carrier is not admissible if the bill of lading has been transferred to a third party, including a consignee, who in good faith has acted in reliance on the description of the goods therein.

4. A bill of lading which does not, as provided in paragraph 1, subparagraph (*k*) of article 15, set forth the freight or otherwise indicate that freight is payable by the consignee or does not set forth demurrage incurred at the port of loading payable by the consignee, is *prima facie* evidence that no freight or such demurrage is payable by him. However, proof to the contrary by the carrier is not admissible when the bill of lading has been transferred to a third party, including a consignee, who in good faith has acted in reliance on the absence in the bill of lading of any such indication.

Article 17

Guarantees by the shipper

1. The shipper is deemed to have guaranteed to the carrier the accuracy of particulars relating to the general nature of the goods, their marks, number, weight and quantity as furnished by him for insertion in the bill of lading. The shipper must indemnify the carrier against the loss resulting from inaccuracies in such particulars. The shipper remains liable even if the bill of lading has been transferred by him. The right of the carrier to such indemnity in no way limits his liability under the contract of carriage by sea to any person other than the shipper.

2. Any letter of guarantee or agreement by which the shipper undertakes to indemnify the carrier against loss resulting from the issuance of the bill of lading by the carrier, or by a person acting on his behalf, without entering a reservation relating to particulars furnished by the shipper for insertion in the bill of lading, or to the apparent condition of the goods, is void and of no effect as against any third party, including a consignee, to whom the bill of lading has been transferred.

3. Such letter of guarantee or agreement is valid as against the shipper unless the carrier or the person acting on his behalf, by omitting the reservation referred to in paragraph 2 of this article, intends to defraud a third party, including a consignee, who acts in reliance on the description of the goods in the bill of lading. In the latter case, if the reservation omitted relates to particulars furnished by the shipper for insertion in the bill of lading, the carrier has no right of indemnity from the shipper pursuant to paragraph 1 of this article.

4. In the case of intended fraud referred to in paragraph 3 of this article the carrier is liable, without the benefit of the limitation of liability provided for in this Convention, for the loss incurred by a third party, including a consignee, because he has acted in reliance on the description of the goods in the bill of lading.

Article 18

Documents other than bills of lading

Where a carrier issues a document other than a bill of lading to evidence the receipt of the goods to be carried, such a document is *prima facie* evidence of the conclusion of the contract of carriage by sea and the taking over by the carrier of the goods as therein described.

PART V
CLAIMS AND ACTIONS

Article 19

Notice of loss, damage or delay

1. Unless notice of loss or damage, specifying the general nature of such loss or damage, is given in writing by the consignee to the carrier not later than the working day after the day when the goods were handed over to the consignee, such handing over is *prima facie* evidence of the delivery by the carrier of the goods as described in the document of transport or, if no such document has been issued, in good condition.

2. Where the loss or damage is not apparent, the provisions of paragraph 1 of this article apply correspondingly if notice in writing is not given within 15 consecutive days after the day when the goods were handed over to the consignee.

3. If the state of the goods at the time they were handed over to the consignee has been the subject of a joint survey or inspection by the parties, notice in writing need not be given of loss or damage ascertained during such survey or inspection.

4. In the case of any actual or apprehended loss or damage the carrier and the consignee must give all reasonable facilities to each other for inspecting and tallying the goods.

5. No compensation shall be payable for loss resulting from delay in delivery unless a notice has been given in writing to the carrier within 60 consecutive days after the day when the goods were handed over to the consignee.

6. If the goods have been delivered by an actual carrier, any notice given under this article to him shall have the same effect as if it had been given to the carrier, and any notice given to the carrier shall have effect as if given to such actual carrier.

7. Unless notice of loss or damage, specifying the general nature of the loss or damage, is given in writing by the carrier or actual carrier to the shipper not later than 90 consecutive days after the occurrence of such loss or damage or after the delivery of the goods in accordance with paragraph 2 of article 4, whichever is later, the failure to give such notice is *prima facie* evidence that the carrier or the actual carrier has sustained no loss or damage due to the fault or neglect of the shipper, his servants or agents.

8. For the purpose of this article, notice given to a person acting on the carrier's or the actual carrier's behalf, including the master or the officer in charge of the ship, or to a person acting

on the shipper's behalf is deemed to have been given to the carrier, to the actual carrier or to the shipper, respectively.

Article 20

Limitation of actions

1. Any action relating to carriage of goods under this Convention is time-barred if judicial or arbitral proceedings have not been instituted within a period of two years.

2. The limitation period commences on the day on which the carrier has delivered the goods or part thereof or, in cases where no goods have been delivered, on the last day on which the goods should have been delivered.

3. The day on which the limitation period commences is not included in the period.

4. The person against whom a claim is made may at any time during the running of the limitation period extend that period by a declaration in writing to the claimant. This period may be further extended by another declaration or declarations.

5. An action for indemnity by a person held liable may be instituted even after the expiration of the limitation period provided for in the preceding paragraphs if instituted within the time allowed by the law of the State where proceedings are instituted. However, the time allowed shall not be less than 90 days commencing from the day when the person instituting such action for indemnity has settled the claim or has been served with process in the action against himself.

Article 21

Jurisdiction

1. In judicial proceedings relating to carriage of goods under this Convention the plaintiff, at his option, may institute an action in a court which, according to the law of the State where the court is situated, is competent and within the jurisdiction of which is situated one of the following places:

(*a*) the principal place of business or, in the absence thereof, the habitual residence of the defendant; or

(*b*) the place where the contract was made provided that the defendant has there a place of business, branch or agency through which the contract was made; or

(*c*) the port of loading or the port of discharge; or

(*d*) any additional place designated for that purpose in the contract of carriage by sea.

2. (*a*) Notwithstanding the preceding provisions of this article, an action may be instituted in the courts of any port or place in a Contracting State at which the carrying vessel or any other vessel of the same ownership may have been arrested in accordance with applicable rules of the law of that State and of international law. However, in such a case, at the petition of the defendant, the claimant must remove the action, at his choice, to one of the jurisdictions referred to in paragraph 1 of this article for the determination of the claim, but before such removal the defendant must furnish security sufficient to ensure payment of any judgement that may subsequently be awarded to the claimant in the action.

(*b*) All questions relating to the sufficiency or otherwise of the security shall be determined by the court of the port or place of the arrest.

3. No judicial proceedings relating to carriage of goods under this Convention may be instituted in a place not specified in paragraph 1 or 2 of this article. The provisions of this paragraph do not constitute an obstacle to the jurisdiction of the Contracting States for provisional or protective measures.

4. (*a*) Where an action has been instituted in a court competent under paragraph 1 or 2 of this article or where judgement has been delivered by such a court, no new action may be started between the same parties on the same grounds unless the judgement of the court before which the first action was instituted is not enforceable in the country in which the new proceedings are instituted;

(*b*) for the purpose of this article the institution of measures with a view to obtaining enforcement of a judgement is not to be considered as the starting of a new action;

(*c*) for the purpose of this article, the removal of an action to a different court within the same country, or to a court in another country, in accordance with paragraph 2(*a*) of this article, is not to be considered as the starting of a new action.

5. Notwithstanding the provisions of the preceding paragraphs, an agreement made by the parties, after a claim under the contract of carriage by sea has arisen, which designates the place where the claimant may institute an action, is effective.

Article 22

Arbitration

1. Subject to the provisions of this article, parties may provide by agreement evidenced in writing that any dispute that may arise relating to carriage of goods under this Convention shall be referred to arbitration.

2. Where a charter-party contains a provision that disputes arising thereunder shall be referred to arbitration and a bill of lading issued pursuant to the charter-party does not contain a special annotation providing that such provision shall be binding upon the holder of the bill of lading,

the carrier may not invoke such provision as against a holder having acquired the bill of lading in good faith.

3. The arbitration proceedings shall, at the option of the claimant, be instituted at one of the following places:

(*a*) a place in a State within whose territory is situated:

(i) the principal place of business of the defendant or, in the absence thereof, the habitual residence of the defendant; or

(ii) the place where the contract was made, provided that the defendant has there a place of business, branch or agency through which the contract was made; or

(iii) the port of loading or the port of discharge; or

(*b*) any place designated for that purpose in the arbitration clause or agreement.

4. The arbitrator or arbitration tribunal shall apply the rules of this Convention.

5. The provisions of paragraphs 3 and 4 of this article are deemed to be part of every arbitration clause or agreement, and any term of such clause or agreement which is inconsistent therewith is null and void.

6. Nothing in this article affects the validity of an agreement relating to arbitration made by the parties after the claim under the contract of carriage by sea has arisen.

PART VI
SUPPLEMENTARY PROVISIONS

Article 23

Contractual stipulations

1. Any stipulation in a contract of carriage by sea, in a bill of lading, or in any other document evidencing the contract of carriage by sea is null and void to the extent that it derogates, directly or indirectly, from the provisions of this Convention. The nullity of such a stipulation does not affect the validity of the other provisions of the contract or document of which it forms a part. A clause assigning benefit of insurance of the goods in favour of the carrier, or any similar clause, is null and void.

2. Notwithstanding the provisions of paragraph 1 of this article, a carrier may increase his responsibilities and obligations under this Convention.

3. Where a bill of lading or any other document evidencing the contract of carriage by sea is issued, it must contain a statement that the carriage is subject to the provisions of this

Convention which nullify any stipulation derogating therefrom to the detriment of the shipper or the consignee.

4. Where the claimant in respect of the goods has incurred loss as a result of a stipulation which is null and void by virtue of the present article, or as a result of the omission of the statement referred to in paragraph 3 of this article, the carrier must pay compensation to the extent required in order to give the claimant compensation in accordance with the provisions of this Convention for any loss of or damage to the goods as well as for delay in delivery. The carrier must, in addition, pay compensation for costs incurred by the claimant for the purpose of exercising his right, provided that costs incurred in the action where the foregoing provision is invoked are to be determined in accordance with the law of the State where proceedings are instituted.

Article 24

General average

1. Nothing in this Convention shall prevent the application of provisions in the contract of carriage by sea or national law regarding the adjustment of general average.

2. With the exception of article 20, the provisions of this Convention relating to the liability of the carrier for loss of or damage to the goods also determine whether the consignee may refuse contribution in general average and the liability of the carrier to indemnify the consignee in respect of any such contribution made or any salvage paid.

Article 25

Other conventions

1. This Convention does not modify the rights or duties of the carrier, the actual carrier and their servants and agents, provided for in international conventions or national law relating to the limitation of liability of owners of seagoing ships.

2. The provisions of articles 21 and 22 of this Convention do not prevent the application of the mandatory provisions of any other multilateral convention already in force at the date of this Convention [March 31, 1978] relating to matters dealt with in the said articles, provided that the dispute arises exclusively between parties having their principal place of business in States members of such other convention. However, this paragraph does not affect the application of paragraph 4 of article 22 of this Convention.

3. No liability shall arise under the provisions of this Convention for damage caused by a nuclear incident if the operator of a nuclear installation is liable for such damage:

(*a*) under either the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy as amended by the Additional Protocol of 28 January 1964 or the Vienna Convention of 21 May 1963 on Civil Liability for Nuclear Damage, or

(*b*) by virtue of national law governing the liability for such damage, provided that such law is in all respects as favourable to persons who may suffer damage as either the Paris or Vienna Conventions.

4. No liability shall arise under the provisions of this Convention for any loss of or damage to or delay in delivery of luggage for which the carrier is responsible under any international convention or national law relating to the carriage of passengers and their luggage by sea.

5. Nothing contained in this Convention prevents a Contracting State from applying any other international convention which is already in force at the date of this Convention and which applies mandatorily to contracts of carriage of goods primarily by a mode of transport other than transport by sea. This provision also applies to any subsequent revision or amendment of such international convention.

Article 26

Unit of account

1. The unit of account referred to in article 6 of this Convention is the Special Drawing Right as defined by the International Monetary Fund. The amounts mentioned in article 6 are to be converted into the national currency of a State according to the value of such currency at the date of judgement or the date agreed upon by the parties. The value of a national currency, in terms of the Special Drawing Right, of a Contracting State which is a member of the International Monetary Fund is to be calculated in accordance with the method of valuation applied by the International Monetary Fund in effect at the date in question for its operations and transactions. The value of a national currency in terms of the Special Drawing Right of a Contracting State which is not a member of the International Monetary Fund is to be calculated in a manner determined by that State.

2. Nevertheless, those States which are not members of the International Monetary Fund and whose law does not permit the application of the provisions of paragraph 1 of this article may, at the time of signature, or at the time of ratification, acceptance, approval or accession or at any time thereafter, declare that the limits of liability provided for in this Convention to be applied in their territories shall be fixed as:

12,500 monetary units per package or other shipping unit or 37.5 monetary units per kilogramme of gross weight of the goods.

3. The monetary unit referred to in paragraph 2 of this article corresponds to sixty-five and a half milligrammes of gold of millesimal fineness nine hundred. The conversion of the amounts referred to in paragraph 2 into the national currency is to be made according to the law of the State concerned.

4. The calculation mentioned in the last sentence of paragraph 1 and the conversion mentioned in paragraph 3 of this article is to be made in such a manner as to express in the national currency of the Contracting State as far as possible the same real value for the amounts in

article 6 as is expressed there in units of account. Contracting States must communicate to the depositary the manner of calculation pursuant to paragraph 1 of this article, or the result of the conversion mentioned in paragraph 3 of this article, as the case may be, at the time of signature or when depositing their instruments of ratification, acceptance, approval or accession, or when availing themselves of the option provided for in paragraph 2 of this article and whenever there is a change in the manner of such calculation or in the result of such conversion.

PART VII
FINAL CLAUSES

Article 27

Depositary

The Secretary General of the United Nations is hereby designated as the depositary of this Convention.

Article 28

Signature, ratification, acceptance, approval, accession

1. This Convention is open for signature by all States until 30 April 1979 at the Headquarters of the United Nations, New York.

2. This Convention is subject to ratification, acceptance or approval by the signatory States.

3. After 30 April 1979, this Convention will be open for accession by all States which are not signatory States.

4. Instruments of ratification, acceptance, approval and accession are to be deposited with the Secretary-General of the United Nations.

Article 29

Reservations

No reservations may be made to this Convention.

Article 30

Entry into force

1. This Convention enters into force on the first day of the month following the expiration of one year from the date of deposit of the 20th instrument of ratification, acceptance, approval or accession.

2. For each State which becomes a Contracting State to this Convention after the date of deposit of the 20th instrument of ratification, acceptance approval or accession, this Convention enters into force on the first day of the month following the expiration of one year after the deposit of the appropriate instrument on behalf of that State.

3. Each Contracting State shall apply the provisions of this Convention to contracts of carriage by sea concluded on or after the date of the entry into force of this Convention in respect of that State.

Article 31

Denunciation of other conventions

1. Upon becoming a Contracting State to this Convention, any State party to the International Convention for the Unification of Certain Rules relating to Bills of Lading signed at Brussels on 25 August 1924 (1924 Convention) must notify the Government of Belgium as the depositary of the 1924 Convention of its denunciation of the said Convention with a declaration that the denunciation is to take effect as from the date when this Convention enters into force in respect of that State.

2. Upon the entry into force of this Convention under paragraph 1 of article 30, the depositary of this Convention must notify the Government of Belgium as the depositary of the 1924 Convention of the date of such entry into force, and of the names of the Contracting States in respect of which the Convention has entered into force.

3. The provisions of paragraphs 1 and 2 of this article apply correspondingly in respect of States parties to the Protocol signed on 23 February 1968 to amend the International Convention for the Unification of Certain Rules relating to Bills of Lading signed at Brussels on 25 August 1924.

4. Notwithstanding article 2 of this Convention, for the purposes of paragraph 1 of this article, a Contracting State may, if it deems it desirable, defer the denunciation of the 1924 Convention and of the 1924 Convention as modified by the 1968 Protocol for a maximum period of five years from the entry into force of this Convention. It will then notify the Government of Belgium of its intention. During this transitory period, it must apply to the Contracting States this Convention to the exclusion of any other one.

Article 32

Revision and amendment

1. At the request of not less than one-third of the Contracting States to this Convention, the depositary shall convene a conference of the Contracting States for revising or amending it.

2. Any instrument of ratification, acceptance, approval or accession deposited after the entry into force of an amendment to this Convention, is deemed to apply to the Convention as amended.

Article 33

Revision of the limitation amounts and unit of account or monetary unit

1. Notwithstanding the provisions of article 32, a conference only for the purpose of altering the amount specified in article 6 and paragraph 2 of article 26, or of substituting either or both of the units defined in paragraphs 1 and 3 of article 26 by other units is to be convened by the depositary in accordance with paragraph 2 of this article. An alteration of the amounts shall be made only because of a significant change in their real value.

2. A revision conference is to be convened by the depositary when not less than one-fourth of the Contracting States so request.

3. Any decision by the conference must be taken by a two-thirds majority of the participating States. The amendment is communicated by the depositary to all the Contracting States for acceptance and to all the States signatories of the Convention for information.

4. Any amendment adopted enters into force on the first day of the month following one year after its acceptance by two-thirds of the Contracting States. Acceptance is to be effected by the deposit of a formal instrument to that effect, with the depositary.

5. After entry into force of an amendment a Contracting State which has accepted the amendment is entitled to apply the Convention as amended in its relations with Contracting States which have not within six months after the adoption of the amendment notified the depositary that they are not bound by the amendment.

6. Any instrument of ratification, acceptance, approval or accession deposited after the entry into force of an amendment to this Convention, is deemed to apply to the Convention as amended.

Article 34

Denunciation

1. A Contracting State may denounce this Convention at any time by means of a notification in writing addressed to the depositary.

2. The denunciation takes effect on the first day of the month following the expiration of one year after the notification is received by the depositary. Where a longer period is specified in the notification, the denunciation takes effect upon the expiration of such longer period after the notification is received by the depositary.

DONE at Hamburg, this thirty-first day of March one thousand nine hundred and seventy-eight, in a single original, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic.

IN WITNESS WHEREOF the undersigned plenipotentiaries, being duly authorized by their respective Governments, have signed the present Convention.

COMMON UNDERSTANDING ADOPTED BY THE UNITED NATIONS CONFERENCE ON THE CARRIAGE OF GOODS BY SEA

It is the common understanding that the liability of the carrier under this Convention is based on the principle of presumed fault or neglect. This means that, as a rule, the burden of proof rests on the carrier but, with respect to certain cases, the provisions of the Convention modify this rule.

APPENDIX 3: ROTTERDAM RULES

UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL CARRIAGE OF GOODS WHOLLY OR PARTLY BY SEA

The States Parties to this Convention,

Reaffirming their belief that international trade on the basis of equality and mutual benefit is an important element in promoting friendly relations among States,

Convinced that the progressive harmonization and unification of international trade law, in reducing or removing legal obstacles to the flow of international trade, significantly contributes to universal economic cooperation among all States on a basis of equality, equity and common interest, and to the well-being of all peoples,

Recognizing the significant contribution of the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, signed in Brussels on 25 August 1924, and its Protocols, and of the United Nations Convention on the Carriage of Goods by Sea, signed in Hamburg on 31 March 1978, to the harmonization of the law governing the carriage of goods by sea,

Mindful of the technological and commercial developments that have taken place since the adoption of those conventions and of the need to consolidate and modernize them,

Noting that shippers and carriers do not have the benefit of a binding universal regime to support the operation of contracts of maritime carriage involving other modes of transport,

Believing that the adoption of uniform rules to govern international contracts of carriage wholly or partly by sea will promote legal certainty, improve the efficiency of international carriage of goods and facilitate new access opportunities for previously remote parties and markets, thus playing a fundamental role in promoting trade and economic development, both domestically and internationally,

Have agreed as follows:

Chapter 1
General provisions

Article 1
Definitions

For the purposes of this Convention:

1. "Contract of carriage" means a contract in which a carrier, against the payment of freight, undertakes to carry goods from one place to another. The contract shall provide for carriage by sea and may provide for carriage by other modes of transport in addition to the sea carriage.

2. "Volume 90ntract" means a contract of carriage that provides for the carriage of a specified quantity of goods in a series of shipments during an agreed period of time. The specification of the quantity may include a minimum, a maximum or a certain range.

3. "Liner transportation" means a transportation service that is offered to the public through publication or similar means and includes transportation by ships operating on a regular schedule between specified ports in accordance with publicly available timetables of sailing dates.

4. "Non-liner transportation" means any transportation that is not liner transportation.

5. "Carrier" means a person that enters into a contract of carriage with a shipper.

6. (a) "Performing party" means a person other than the carrier that performs or undertakes to perform any of the carrier's obligations under a contract of carriage with respect to the receipt, loading, handling, stowage, carriage, care, unloading or delivery of the goods, to the extent that such person acts, either directly or indirectly, at the carrier's request or under the carrier's supervision or control.

(b) "Performing party" does not include any person that is retained, directly or indirectly, by a shipper, by a documentary shipper, by the controlling party or by the consignee instead of by the carrier.

7. "Maritime performing party" means a performing party to the extent that it performs or undertakes to perform any of the carrier's obligations during the period between the arrival of the goods at the port of loading of a ship and their departure from the port of discharge of a ship. An inland carrier is a mantIme performing party only if it performs or undertakes to perform its services exclusively within a port area.

8. "Shipper" means a person that enters into a contract of carriage with a carrier.

9. "Documentary shipper" means a person, other than the shipper, that accepts to be named as "shipper" in the transport document or electronic transport record.

10. "Holder" means:

(a) A person that is in possession of a negotiable transport document; and (i) if the document is an order document, is identified in it as the shipper or the consignee, or is the person to which the document is duly endorsed; or (ii) if the document is a blank endorsed order document or bearer document, is the bearer thereof; or

(b) The person to which a negotiable electronic transport record has been issued or transferred in accordance with the procedures referred to in article 9, paragraph 1.

11. "Consignee" means a person entitled to delivery of the goods under a contract of carriage or a transport document or electronic transport record.

12. "Right of control" of the goods means the right under the contract of carriage to give the carrier instructions in respect of the goods in accordance with chapter 10.

13. "Controlling party" means the person that pursuant to article 51 is entitled to exercise the right of control.

14. "Transport document" means a document issued under a contract of carriage by the carrier that:
(a) Evidences the carrier's or a performing party's receipt of goods under a contract of carriage; and
(b) Evidences or contains a contract of carriage.

15. "Negotiable transport document" means a transport document that indicates, by wording such as "to order" or "negotiable" or other appropriate wording recognized as having the same effect by the law applicable to the document, that the goods have been consigned to the order of the shipper, to the order of the consignee, or to bearer, and is not explicitly stated as being "non-negotiable" or "not negotiable".

16. "Non-negotiable transport document" means a transport document that is not a negotiable transport document.

17. "Electronic communication" means information generated, sent, received or stored by electronic, optical, digital or similar means with the result that the information communicated is accessible so as to be usable for subsequent reference.

18. "Electronic transport record" means information in one or more messages issued by electronic communication under a contract of carriage by a carrier, including information logically associated with the electronic transport record by attachments or otherwise linked to the electronic transport record contemporaneously with or subsequent to its issue by the carrier, so as to become part of the electronic transport record, that:
(a) Evidences the carrier's or a performing party's receipt of goods under a contract of carriage; and
(b) Evidences or contains a contract of carriage.

19. "Negotiable electronic transport record" means an electronic transport record:
(a) That indicates, by wording such as "to order", or "negotiable", or other appropriate wording recognized as having the same effect by the law applicable to the record, that the goods have been consigned to the order of the shipper or to the order of the consignee, and is not explicitly stated as being "non-negotiable" or "not negotiable"; and
(b) The use of which meets the requirements of article 9, paragraph 1.

20. "Non-negotiable electronic transport record" means an electronic transport record that is not a negotiable electronic transport record.

21. The "issuance" of a negotiable electronic transport record means the issuance of the record in accordance with procedures that ensure that the record is subject to exclusive control from its creation until it ceases to have any effect or validity.

22. The "transfer" of a negotiable electronic transport record means the transfer of exclusive control over the record.

23. "Contract particulars" means any information relating to the contract of carriage or to the goods (including terms, notations, signatures and endorsements) that is in a transport document or an electronic transport record.

24. "Goods" means the wares, merchandise, and articles of every kind whatsoever that a carrier undertakes to carry under a contract of carriage and includes the packing and any equipment and container not supplied by or on behalf of the carrier.

25. "Ship" means any vessel used to carry goods by sea.

26. "Container" means any type of container, transportable tank or flat, swapbody, or any similar unit load used to consolidate goods, and any equipment ancillary to such unit load.

27. "Vehicle" means a road or railroad cargo vehicle.

28. "Freight" means the remuneration payable to the carrier for the carriage of goods under a contract of carriage.

29. "Domicile" means (a) a place where a company or other legal person or association of natural or legal persons has its (i) statutory seat or place of incorporation or central registered office, whichever is applicable, (ii) central administration or (iii) principal place of business, and (b) the habitual residence of a natural person.

30. "Competent court" means a court in a Contracting State that, according to the rules on the internal allocation of jurisdiction among the courts of that State, may exercise jurisdiction over the dispute.

Article 2
Interpretation of this Convention
In the interpretation of this Convention, regard is to be had to its international character and to the need to promote uniformity in its application and the observance of good faith in international trade.

Article 3
Form requirements
The notices, confirmation, consent, agreement, declaration and other communications referred to in articles 19, paragraph 2; 23, paragraphs 1 to 4; 36, subparagraphs 1 (b), (c) and (d); 40, subparagraph 4 (b); 44; 48, paragraph 3; 51, subparagraph 1 (b); 59, paragraph 1; 63; 66; 67, paragraph 2; 75, paragraph 4; and 80, paragraphs 2 and 5, shall be in writing. Electronic

communications may be used for these purposes, provided that the use of such means is with the consent of the person by which it is communicated and of the person to which it is communicated.

Article 4
Applicability of defences and limits of liability
1. Any provision of this Convention that may provide a defence for, or limit the liability of, the carrier applies in any judicial or arbitral proceeding, whether founded in contract, in tort, or otherwise, that is instituted in respect of loss of, damage to, or delay in delivery of goods covered by a contract of carriage or for the breach of any other obligation under this Convention against:
(a) The carrier or a maritime performing party;
(b) The master, crew or any other person that performs services on board the ship; or
(c) Employees of the carrier or a maritime performing party.

2. Any provision of this Convention that may provide a defense for the shipper or the documentary shipper applies in any judicial or arbitral proceeding, whether founded in contract, in tort, or otherwise, that is instituted against the shipper, the documentary shipper, or their subcontractors, agents or employees.

Chapter 2
Scope of application
Article 5
General scope of application
1. Subject to article 6, this Convention applies to contracts of carriage in which the place of receipt and the place of delivery are in different States, and the port of loading of a sea carriage and the port of discharge of the same sea carriage are in different States, if, according to the contract of carriage, any one of the following places is located in a Contracting State:
(a) The place of receipt;
(b) The port of loading;
(c) The place of delivery; or
(d) The port of discharge.

2. This Convention applies without regard to the nationality of the vessel, the carrier, the performing parties, the shipper, the consignee, or any other interested parties.

Article 6
Specific exclusions
1. This Convention does not apply to the following contracts liner transportation:
(a) Charter parties; and
(b) Other contracts for the use of a ship or of any space thereon.

2. This Convention does not apply to contracts of carriage in non-liner transportation except when:
(a) There is no charter party or other contract between the parties for the use of a ship or of any space thereon; and
(b) A transport document or an electronic transport record is issued.

Article 7
Application to certain parties
Notwithstanding article 6, this Convention applies as between the carrier and the consignee, controlling party or holder that is not an original party to the charter party or other contract of carriage excluded from the application of this Convention. However, this Convention does not apply as between the original parties to a contract of carriage excluded pursuant to article 6.

Chapter 3
Electronic transport records
Article 8
Use and effect of electronic transport records

Subject to the requirements set out in this Convention:
(a) Anything that is to be in or on a transport document under this Convention may be recorded in an electronic transport record, provided the issuance and subsequent use of an electronic transport record is with the consent of the carrier and the shipper; and
(b) The issuance, exclusive control, or transfer of an electronic transport record has the same effect as the issuance, possession, or transfer of a transport document.

Article 9
Procedures for use of negotiable electronic transport records
1. The use of a negotiable electronic transport record shall be subject to procedures that provide for:
(a) The method for the issuance and the transfer of that record to an intended holder;
(b) An assurance that the negotiable electronic transport record retains its integrity;
(c) The manner in which the holder is able to demonstrate that it is the holder; and
(d) The manner of providing confirmation that delivery to the holder has been effected, or that, pursuant to articles 10, paragraph 2, or 47, subparagraphs 1 (a) (ii) and (c), the electronic transport record has ceased to have any effect or validity.
2. The procedures in paragraph 1 of this article shall be referred to in the contract particulars and be readily ascertainable.

Article 10
Replacement of negotiable transport document or negotiable electronic transport record
1. If a negotiable transport document has been issued and the carrier and the holder agree to replace that document by a negotiable electronic transport record:
(a) The holder shall surrender the negotiable transport document, or all of them if more than one has been issued, to the carrier;
(b) The carrier shall issue to the holder a negotiable electronic transport record that includes a statement that it replaces the negotiable transport document; and
(c) The negotiable transport document ceases thereafter to have any effect or validity.
2. If a negotiable electronic transport record has been issued and the carrier and the holder agree to replace that electronic transport record by a negotiable transport document:

(a) The carrier shall issue to the holder, in place of the electronic transport record, a negotiable transport document that includes a statement that it replaces the negotiable electronic transport record; and
(b) The electronic transport record ceases thereafter to have any effect or validity.

Chapter 4
Obligations of the carrier

Article 11
Carriage and delivery of the goods
The carrier shall, subject to this Convention and in accordance with the terms of the contract of carriage, carry the goods to the place of destination and deliver them to the consignee.

Article 12
Period of responsibility of the carrier
1. The period of responsibility of the carrier for the goods under this Convention begins when the carrier or a performing party receives the goods for carriage and ends when the goods are delivered.
2. (a) If the law or regulations of the place of receipt require the goods to be handed over to an authority or other third party from which the carrier may collect them, the period of responsibility of the carrier begins when the carrier collects the goods from the authority or other third party.
(b) If the law or regulations of the place of delivery require the carrier to hand over the goods to an authority or other third party from which the consignee may collect them, the period of responsibility of the carrier ends when the carrier hands the goods over to the authority or other third party.
3. For the purpose of determining the carrier's period of responsibility, the parties may agree on the time and location of receipt and delivery of the goods, but a provision in a contract of carriage is void to the extent that it provides that:
(a) The time of receipt of the goods is subsequent to the beginning of their initial loading under the contract of carriage; or
(b) The time of delivery of the goods is prior to the completion of their final unloading under the contract of carriage.

Article 13
Specific obligations
1. The carrier shall during the period of its responsibility as defined in article 12, and subject to article 26, properly and carefully receive, load, handle, stow, carry, keep, care for, unload and deliver the goods.
2. Notwithstanding paragraph 1 of this article, and without prejudice to the other provisions in chapter 4 and to chapters 5 to 7, the carrier and the shipper may agree that the loading, handling, stowing or unloading of the goods is to be performed by the shipper, the documentary shipper or the consignee. Such an agreement shall be referred to in the contract particulars.

Article 14
Specific obligations applicable to the voyage by sea

The carrier is bound before, at the beginning of, and during the voyage by sea to exercise due diligence to:
(a) Make and keep the ship seaworthy;
(b) Properly crew, equip and supply the ship and keep the ship so crewed, equipped and supplied throughout the voyage; and
(c) Make and keep the holds and all other parts of the ship in which the goods are carried, and any containers supplied by the carrier in or upon which the goods are carried, fit and safe for their reception, carriage and preservation.

Article 15
Goods that may become a danger
Notwithstanding articles 11 and 13, the carrier or a performing party may decline to receive or to load, and may take such other measures as are reasonable, including unloading, destroying, or rendering goods harmless, if the goods are, or reasonably appear likely to become during the carrier's period of responsibility, an actual danger to persons, property or the environment.

Article 16
Sacrifice of the goods during the voyage by sea
Notwithstanding articles 11, 13, and 14, the carrier or a performing party may sacrifice goods at sea when the sacrifice is reasonably made for the common safety or for the purpose of preserving from peril human life or other property involved in the common adventure.

Chapter 5
Liability of the carrier for loss, damage or delay

Article 17
Basis of liability
1. The carrier is liable for loss of or damage to the goods, as well as for delay in delivery, if the claimant proves that the loss, damage, or delay, or the event or circumstance that caused or contributed to it took place during the period of the carrier's responsibility as defined in chapter 4.
2. The carrier is relieved of all or part of its liability pursuant to paragraph 1 of this article if it proves that the cause or one of the causes of the loss, damage, or delay is not attributable to its fault or to the fault of any person referred to in article 18.
3. The carrier is also relieved of all or part of its liability pursuant to paragraph 1 of this article if, alternatively to proving the absence of fault as provided in paragraph 2 of this article, it proves that one or more of the following events or circumstances caused or contributed to the loss, damage, or delay:
(a) Act of God;
(b) Perils, dangers, and accidents of the sea or other navigable waters;
(c) War, hostilities, armed conflict, piracy, terrorism, riots, and civil commotions;
(d) Quarantine restrictions; interference by or impediments created by governments, public authorities, rulers, or people including detention, arrest, or seizure not attributable to the carrier or any person referred to in article 18; .
(e) Strikes, lockouts, stoppages, or restraints of labour;

(f) Fire on the ship;
(g) Latent defects not discoverable by due diligence;
(h) Act or omission of the shipper, the documentary shipper, the controlling party, or any other person for whose acts the shipper or the documentary shipper is liable pursuant to article 33 or 34;
(i) Loading, handling, stowing, or unloading of the goods performed pursuant to an agreement in accordance with article 13, paragraph 2, unless the carrier or a performing party performs such activity on behalf of the shipper, the documentary shipper or the consignee;
(j) Wastage in bulk or weight or any other loss or damage from inherent defect, quality, or vice of the goods;
(k) Insufficiency or defective condition of packing or marking not performed by or on behalf of the carrier;
(1) Saving or attempting to save life at sea;
(m) Reasonable measures to save or attempt to save property at sea;
(n) Reasonable measures to avoid or attempt to avoid damage to the environment; or
(o) Acts of the carrier III pursuance of the powers conferred by articles 15 and 16.

4. Notwithstanding paragraph 3 of this article, the carrier is liable for all or part of the loss, damage, or delay:
(a) If the claimant proves that the fault of the carrier or of a person referred to in article 18 caused or contributed to the event or circumstance on which the carrier relies; or
(b) If the claimant proves that an event or circumstance not listed in paragraph 3 of this article contributed to the loss, damage, or delay, and the carrier cannot prove that this event or circumstance is not attributable to its fault or to the fault of any person referred to in article 18.
5. The carrier is also liable, notwithstanding paragraph 3 of this article, for all or part of the loss, damage, or delay if:
(a) The claimant proves that the loss, damage, or delay was or was probably caused by or contributed to by (i) the unseaworthiness of the ship; (ii) the improper crewing, equipping, and supplying of the ship; or (iii) the fact that the holds or other parts of the ship in which the goods are carried, or any containers supplied by the carrier in or upon which the goods are carried, were not fit and safe for reception, carriage, and preservation of the goods; and
(b) The carrier is unable to prove either that: (i) none of the events or circumstances referred to in subparagraph 5 (a) of this article caused the loss, damage, or delay; or (ii) it complied with its obligation to exercise due diligence pursuant to article 14.
6. When the carrier is relieved of part of its liability pursuant to this article, the carrier is liable only for that part of the loss, damage or delay that is attributable to the event or circumstance for which it is liable pursuant to this article.

Article 18
Liability of the carrier for other persons
The carrier is liable for the breach of its obligations under this Convention caused by the acts or omissions of:
(a) Any performing party;
(b) The master or crew of the ship;
(c) Employees of the carrier or a performing party; or
(d) Any other person that performs or undertakes to perform any of

the carrier's obligations under the contract of carriage, to the extent that the person acts, either directly or indirectly, at the carrier's request or under the carrier's supervision or control.

Article 19
Liability of maritime performing parties
1. A maritime performing party is subject to the obligations and liabilities imposed on the carrier under this Convention and is entitled to the carrier's defences and limits of liability as provided for in this Convention if:
(a) The maritime performing party received the goods for carriage in a Contracting State, or delivered them in a Contracting State, or performed its activities with respect to the goods in a port in a Contracting State; and
(b) The occurrence that caused the loss, damage or delay took place:
(i) during the period between the arrival of the goods at the port of loading of the ship and their departure from the port of discharge from the ship; (ii) while the maritime performing party had custody of the goods; or (iii) at any other time to the extent that it was participating in the performance of any of the activities contemplated by the contract of carriage.
2. If the carrier agrees to assume obligations other than those imposed on the carrier under this Convention, or agrees that the limits of its liability are higher than the limits specified under this Convention, a maritime performing party is not bound by this agreement unless it expressly agrees to accept such obligations or such higher limits.
3. A maritime performing party is liable for the breach of its obligations under this Convention caused by the acts or omissions of any person to which it has entrusted the performance of any of the carrier's obligations under the contract of carriage under the conditions set out in paragraph 1 of this article.
4. Nothing in this Convention imposes liability on the master or crew of the ship or on an employee of the carrier or of a maritime performing party.

Article 20
Joint and several liability
1. If the carrier and one or more maritime performing parties are liable for the loss of, damage to, or delay in delivery of the goods, their liability is joint and several but only up to the limits provided for under this Convention.
2. Without prejudice to article 61, the aggregate liability of all such persons shall not exceed the overall limits of liability under this Convention.

Article 21
Delay
Delay in delivery occurs when the goods are not delivered at the place of destination provided for in the contract of carriage within the time agreed.

Article 22
Calculation of compensation
1. Subject to article 59, the compensation payable by the carrier for loss of or damage to the goods is calculated by reference to the value of such goods at the place and time of delivery established in accordance with article 43.

2. The value of the goods is fixed according to the commodity exchange price or, if there is no such price, according to their market price or, if there is no commodity exchange price or market price, by reference to the normal value of the goods of the same kind and quality at the place of delivery.
3. In case of loss of or damage to the goods, the carrier is not liable for payment of any compensation beyond what is provided for in paragraphs 1 and 2 of this article except when the carrier and the shipper have agreed to calculate compensation in a different manner within the limits of chapter 16.

Article 23
Notice in case of loss, damage or delay
1. The carrier is presumed, in absence of proof to the contrary, to have delivered the goods according to their description in the contract particulars unless notice of loss of or damage to the goods, indicating the general nature of such loss or damage, was given to the carrier or the performing party that delivered the goods before or at the time of the delivery, or, if the loss or damage is not apparent, within seven working days at the place of delivery after the delivery of the goods.
2. Failure to provide the notice referred to in this article to the carrier or the performing party shall not affect the right to claim compensation for loss of or damage to the goods under this Convention, nor shall it affect the allocation of the burden of proof set out in article 17.
3. The notice referred to in this article is not required in respect of loss or damage that is ascertained in a joint inspection of the goods by the person to which they have been delivered and the carrier or the maritime performing party against which liability is being asserted.
4. No compensation in respect of delay is payable unless notice of loss due to delay was given to the carrier within twenty-one consecutive days of delivery of the goods.
5. When the notice referred to in this article is given to the performing party that delivered the goods, it has the same effect as if that notice was given to the carrier, and notice given to the carrier has the same effect as a notice given to a maritime performing party.
6. In the case of any actual or apprehended loss or damage, the parties to the dispute shall give all reasonable facilities to each other for inspecting and tallying the goods and shall provide access to records and documents relevant to the carriage of the goods.

Chapter 6
Additional provisions relating to particular stages of carriage
Article 24
Deviation
When pursuant to applicable law a deviation constitutes a breach of the carrier's obligations, such deviation of itself shall not deprive the carrier or a maritime performing party of any defence or limitation of this Convention, except to the extent provided in article 61.

Article 25
Deck cargo on ships
1. Goods may be carried on the deck of a ship only if:
(a) Such carriage is required by law;
(b) They are carried in or on containers or vehicles that are fit for deck carriage, and the decks are specially fitted to carry such containers or vehicles; or

(c) The carriage on deck is in accordance with the contract of carriage, or the customs, usages or practices of the trade in question.
2. The provisions of this Convention relating to the liability of the carrier apply to the loss of, damage to or delay in the delivery of goods carried on deck pursuant to paragraph 1 of this article, but the carrier is not liable for loss of or damage to such goods, or delay in their delivery, caused by the special risks involved in their carriage on deck when the goods are carried accordance with subparagraphs 1 (a) or (c) of this article.
3. If the goods have been carried on deck in cases other than those permitted pursuant to paragraph 1 of this article, the carrier is liable for loss of or damage to the goods or delay in their delivery that is exclusively caused by their carriage on deck, and is not entitled to the defences provided for in article
4. The carrier is not entitled to invoke subparagraph 1 (c) of this article against a third party that has acquired a negotiable transport document or a negotiable electronic transport record in good faith, unless the contract particulars state that the goods may be carried on deck.
5. If the carrier and shipper expressly agreed that the goods would be carried under deck, the carrier is not entitled to the benefit of the limitation of extent that such loss, damage, or delay resulted from their carriage on deck.

Article 26
Carriage preceding or subsequent to sea carriage
When loss of or damage to goods, or an event or circumstance causing a delay in their delivery, occurs during the carrier's period of responsibility but solely before their loading onto the ship or solely after their discharge from the ship, the provisions of this Convention do not prevail over those provisions of another international instrument that, at the time of such loss, damage or event or circumstance causing delay:
(a) Pursuant to the provisions of such international instrument would have applied to all or any of the carrier's activities if the shipper had made a separate and direct contract with the carrier in respect of the particular stage of carriage where the loss of, or damage to goods, or an event or circumstance causing delay in their delivery occurred;
(b) Specifically provide for the carrier's liability, limitation of liability, or time for suit; and
(c) Cannot be departed from by contract either at all or to the detriment of the shipper under that instrument.

Chapter 7
Obligations of the shipper to the carrier
Article 27
Delivery for carriage
1. Unless otherwise agreed in the contract of carriage, the shipper shall deliver the goods ready for carriage. In any event, the shipper shall deliver the goods in such condition that they will withstand the intended carriage, including their loading, handling, stowing, lashing and securing, and unloading, and that they will not cause harm to persons or property.
2. The shipper shall properly and carefully perform any obligation
3. When a container is packed or a vehicle is loaded by the shipper, the shipper shall properly and carefully stow, lash and secure the contents in or on the container or vehicle, and in such a way that they will not cause harm to persons or property.

Article 28

Cooperation of the shipper and the carrier in providing information and instructions

The carrier and the shipper shall respond to requests from each other to provide information and instructions required for the proper handling and carriage of the goods if the information is in the requested party's possession or the instructions are within the requested party's reasonable ability to provide and they are not otherwise reasonably available to the requesting party.

Article 29

Shippers obligation to provide information, instructions and documents

1. The shipper shall provide to the carrier in a timely manner such information, instructions and documents relating to the goods that are not otherwise reasonably available to the carrier, and that are reasonably necessary:

(a) For the proper handling and carriage of the goods, including precautions to be taken by the carrier or a performing party; and (b) For the carrier to comply with law, regulations or other requirements of public authorities in connection with the intended carriage, provided that the carrier notifies the shipper in a timely manner of the information, instructions and documents it requires.

2. Nothing in this article affects any specific obligation to provide certain information, instructions and documents related to the goods pursuant to law, regulations or other requirements of public authorities in connection with the intended carriage.

Article 30

Basis of shippers liability to the carrier

1. The shipper is liable for loss or damage sustained by the carrier if the carrier proves that such loss or damage was caused by a breach of the shipper's obligations under this Convention.

2. Except in respect of loss or damage caused by a breach by the shipper of relieved of all or part of its liability if the cause or one of the causes of the loss or damage is not attributable to its fault or to the fault of any person referred to in article 34.

3. When the shipper is relieved of part of its liability pursuant to this article, the shipper is liable only for that part of the loss or damage that is attributable to its fault or to the fault of any person referred to in article 34.

Article 31

Information for compilation of contract particulars

1. The shipper shall provide to the carrier, in a timely manner, accurate information required for the compilation of the contract particulars and the issuance of the transport documents or electronic transport records, including the particulars referred to in article 36, paragraph 1; the name of the party to be identified as the shipper in the contract particulars; the name of the consignee, if any; and the name of the person to whose order the transport document or electronic transport record is to be issued, if any.

2. The shipper is deemed to have guaranteed the accuracy at the time of receipt by the carrier of the information that is provided according to paragraph 1 of this article. The shipper shall indemnify the carrier against loss or damage resulting from the inaccuracy of such information.

Article 32

Special rules on dangerous goods

When goods by their nature or character are, or reasonably appear likely to become, a danger to persons, property or the environment:
(a) The shipper shall inform the carrier of the dangerous nature or character of the goods in a timely manner before they are delivered to the carrier or a performing party. If the shipper fails to do so and the carrier or performing party does not otherwise have knowledge of their dangerous nature or character, the shipper is liable to the carrier for loss or damage resulting from such failure to inform; and
(b) The shipper shall mark or label dangerous goods in accordance with any law, regulations or other requirements of public authorities that apply during any stage of the intended carriage of the goods. If the shipper fails to do so, it is liable to the carrier for loss or damage resulting from such failure.

Article 33
Assumption of shippers rights and obligations by the documentary shipper
1. A documentary shipper is subject to the obligations and liabilities imposed on the shipper pursuant to this chapter and pursuant to article 55, and is entitled to the shipper's rights and defences provided by this chapter and by chapter 13.
2. Paragraph 1 of this article does not affect the obligations, liabilities, rights or defences of the shipper.

Article 34
Liability of the shipper for other persons
The shipper is liable for the breach of its obligations under this Convention caused by the acts or omissions of any person, including employees, agents and subcontractors, to which it has entrusted the performance of any of its obligations, but the shipper is not liable for acts or omissions of the carrier or a performing party acting on behalf of the carrier, to which the shipper has entrusted the performance of its obligations.

Chapter 8
Transport documents and electronic transport records
Article 35
Issuance of the transport document or the electronic transport record
Unless the shipper and the carrier have agreed not to use a transport document or an electronic transport record, or it is the custom, usage or practice of the trade not to use one, upon delivery of the goods for carriage to the carrier or performing party, the shipper or, if the shipper consents, the documentary shipper, is entitled to obtain from the carrier, at the shipper's
option:
(a) A non-negotiable transport document or, subject to article 8, subparagraph (a), a non-negotiable electronic transport record; or
(b) An appropriate negotiable transport document or, subject to article 8, subparagraph (a), a negotiable electronic transport record, unless the shipper and the carrier have agreed not to use a negotiable transport document or negotiable electronic transport record, or it is the custom, usage or practice of the trade not to use one.

Article 36
Contract particulars

1. The contract particulars in the transport document or electronic transport record referred to in article 35 shall include the following information, as furnished by the shipper:
(a) A description of the goods as appropriate for the transport;
(b) The leading marks necessary for identification of the goods;
(c) The number of packages or pieces, or the quantity of goods; and
(d) The weight of the goods, if furnished by the shipper.
2. The contract particulars in the transport document or electronic transport record referred to in article 35 shall also include:
(a) A statement of the apparent order and condition of the goods at the time the carrier or a performing party receives them for carriage;
(b) The name and address of the carrier;
(c) The date on which the carrier or a performing party received the goods, or on which the goods were loaded on board the ship, or on which the transport document or electronic transport record was issued; and
(d) If the transport document is negotiable, the number of originals of the negotiable transport document, when more than one original is issued.
3. The contract particulars in the transport document or electronic transport record referred to in article 35 shall further include:
(a) The name and address of the consignee, if named by the shipper;
(b) The name of a ship, if specified in the contract of carriage;
(c) The place of receipt and, if known to the carrier, the place of delivery; and
(d) The port of loading and the port of discharge, if specified in the contract of carriage.
4. For the purposes of this article, the phrase "apparent order and condition of the goods" in subparagraph 2 (a) of this article refers to the order and condition of the goods based on:
(a) A reasonable external inspection of the goods as packaged at the time the shipper delivers them to the carrier or a performing party; and
(b) Any additional inspection that the carrier or a performing party actually performs before issuing the transport document or electronic transport record.

Article 37
Identity of the carrier
1. If a carrier is identified by name in the contract particulars, any other information in the transport document or electronic transport record relating to the identity of the carrier shall have no effect to the extent that it is inconsistent with that identification.
2. If no person is identified in the contract particulars as the carrier as required pursuant to article 36, subparagraph 2 (b), but the contract particulars indicate that the goods have been loaded on board a named ship, the registered owner of that ship is presumed to be the carrier, unless it proves that the ship was under a bareboat charter at the time of the carriage and it identifies this bareboat charterer and indicates its address, in which case this bareboat charterer is presumed to be the carrier. Alternatively, the registered owner may rebut the presumption of being the carrier by identifying the carrier and indicating its address. The bareboat charterer may rebut any presumption of being the carrier in the same manner.
3. Nothing in this article prevents the claimant from proving that any person other than a person identified in the contract particulars or pursuant to paragraph 2 of this article is the carrier.

Article 38

Signature

1. A transport document shall be signed by the carrier or a person acting on its behalf.

2. An electronic transport record shall include the electronic signature of the carrier or a person acting on its behalf. Such electronic signature shall identify the signatory in relation to the electronic transport record and indicate the carrier's authorization of the electronic transport record.

Article 39

Deficiencies in the contract particulars

1. The absence or inaccuracy of one or more of the contract particulars referred to in article 36, paragraphs 1, 2 or 3, does not of itself affect the legal character or validity of the transport document or of the electronic transport record.

2. If the contract particulars include the date but fail to indicate its significance, the date is deemed to be:

(a) The date on which all of the goods indicated in the transport document or electronic transport record were loaded on board the ship, if the contract particulars indicate that the goods have been loaded on board a ship; or

(b) The date on which the carrier or a performing party received the goods, if the contract particulars do not indicate that the goods have been loaded on board a ship.

3. If the contract particulars fail to state the apparent order and condition of the goods at the time the carrier or a performing party receives them, the contract particulars are deemed to have stated that the goods were in apparent good order and condition at the time the carrier or a performing party received them.

Article 40

Qualifying the information relating to the goods in the contract particulars

1. The carrier shall qualify the information referred to in article 36, paragraph 1, to indicate that the carrier does not assume responsibility for the accuracy of the information furnished by the shipper if:

(a) The carrier has actual knowledge that any material statement in the transport document or electronic transport record is false or misleading; or

(b) The carrier has reasonable grounds to believe that a material statement in the transport document or electronic transport record is false or misleading.

2. Without prejudice to paragraph 1 of this article, the carrier may qualify the information referred to in article 36, paragraph 1, in the circumstances and in the manner set out in paragraphs 3 and 4 of this article to indicate that the carrier does not assume responsibility for the accuracy of the information furnished by the shipper.

3. When the goods are not delivered for carriage to the carrier or a performing party in a closed container or vehicle, or when they are delivered in a closed container or vehicle and the carrier or a performing party actually inspects them, the carrier may qualify the information referred to in article 36, paragraph 1, if:

(a) The carrier had no physically practicable or commercially reasonable means of checking the information furnished by the shipper, in which case it may indicate which information it was unable to check; or

(b) The carrier has reasonable grounds to believe the information furnished by the shipper to be inaccurate, in which case it may include a clause providing what it reasonably considers accurate information.
4. When the goods are delivered for carriage to the carrier or a performing party in a closed container or vehicle, the carrier may qualify the information referred to in:
(a) Article 36, subparagraphs 1 (a), (b), or (c), if:
(i) The goods inside the container or vehicle have not actually been inspected by the carrier or a performing party; and
(ii) Neither the carrier nor a performing party otherwise has actual knowledge of its contents before issuing the transport document or the electronic transport record; and
(b) Article 36, subparagraph 1 (d), if:
(i) Neither the carrier nor a performing party weighed the container or vehicle, and the shipper and the carrier had not agreed prior to the shipment that the container or vehicle would be weighed and the weight would be included in the contract particulars; or
(ii) There was no physically practicable or commercially reasonable means of checking the weight of the container or vehicle.

Article 41
Evidentiary effect of the contract particulars
Except to the extent that the contract particulars have been qualified in the circumstances and in the manner set out in article 40:
(a) A transport document or an electronic transport record is prima facie evidence of the carrier's receipt of the goods as stated in the contract particulars;
(b) Proof to the contrary by the carrier in respect of any contract particulars shall not be admissible, when such contract particulars are included
(i) A negotiable transport document or a negotiable electronic transport record that is transferred to a third party acting in good faith; or
(ii) A non-negotiable transport document that indicates that it must be surrendered in order to obtain delivery of the goods and is transferred to the consignee acting in good faith;
(c) Proof to the contrary by the carrier shall not be admissible against a consignee that in good faith has acted in reliance on any of the following contract particulars included in a non-negotiable transport document or a non-negotiable electronic transport record:
(i) The contract particulars referred to in article 36, paragraph 1, when such contract particulars are furnished by the carrier;
(ii) The number, type and identifying numbers of the containers, but not the identifying numbers of the container seals; and
(iii) The contract particulars referred to in article 36, paragraph 2.

Article 42
"Freight prepaid"
If the contract particulars contain the statement "freight prepaid" or a statement of a similar nature, the carrier cannot assert against the holder or the consignee the fact that the freight has not been paid. This article does not apply if the holder or the consignee is also the shipper.

Chapter 9
Delivery of the goods

Article 43

Obligation to accept delivery

When the goods have arrived at their destination, the consignee that demands delivery of the goods under the contract of carriage shall accept delivery of the goods at the time or within the time period and at the location agreed in the contract of carriage or, failing such agreement, at the time and location at which, having regard to the terms of the contract, the customs, usages or practices of the trade and the circumstances of the carriage, delivery could reasonably be expected.

Article 44

Obligation to acknowledge receipt

On request of the carrier or the performing party that delivers the goods, the consignee shall acknowledge receipt of the goods from the carrier or the performing party in the manner that is customary at the place of delivery. The carrier may refuse delivery if the consignee refuses to acknowledge such receipt.

Article 45

Delivery when no negotiable transport document or negotiable electronic transport record is issued

When neither a negotiable transport document nor a negotiable electronic transport record has been issued:

(a) The carrier shall deliver the goods to the consignee at the time and location referred to in article 43. The carrier may refuse delivery if the person claiming to be the consignee does not properly identify itself as the consignee on the request of the carrier;

(b) If the name and address of the consignee are not referred to in the contract particulars, the controlling party shall prior to or upon the arrival of the goods at the place of destination advise the carrier of such name and address;

(c) Without prejudice to article 48, paragraph 1, if the goods are not deliverable because (i) the consignee, after having received a notice of arrival, does not, at the time or within the time period referred to in article 43, claim delivery of the goods from the carrier after their arrival at the place of destination, (ii) the carrier refuses delivery because the person claiming to be the consignee does not properly identify itself as the consignee, or (iii) the carrier is, after reasonable effort, unable to locate the consignee in order to request delivery instructions, the carrier may so advise the controlling party and request instructions in respect of the delivery of the goods. If, after reasonable effort, the carrier is unable to locate the controlling party, the carrier may so advise the shipper and request instructions in respect of the delivery of the goods. If, after reasonable effort, the carrier is unable to locate the shipper, the carrier may so advise the documentary shipper and request instructions in respect of the delivery of the goods;

(d) The carrier that delivers the goods upon instruction of the controlling party, the shipper or the documentary shipper pursuant to subparagraph (c) of this article is' discharged from its obligations to deliver the goods under the contract of carriage.

Article 46

Delivery when a non-negotiable transport document that requires surrender is issued

When a non-negotiable transport document has been issued that indicates that it shall be surrendered in order to obtain delivery of the goods:

(a) The carrier shall deliver the goods at the time and location referred to in article 43 to the consignee upon the consignee properly identifying itself on the request of the carrier and surrender of the non-negotiable document. The carrier may refuse delivery if the person claiming to be the consignee fails to properly identify itself on the request of the carrier, and shall refuse delivery if the non negotiable document is not surrendered. If more than one original of the non negotiable document has been issued, the surrender of one original will suffice and the other originals cease to have any effect or validity;
(b) Without prejudice to article 48, paragraph 1, if the goods are not deliverable because (i) the consignee, after having received a notice of arrival, does not, at the time or within the time period referred to in article 43, claim destination, (ii) the carrier refuses delivery because the person claiming to be the consignee does not properly identify itself as the consignee or does not surrender the document, or (iii) the carrier is, after reasonable, unable to locate the consignee in order to request delivery instructions, the carrier may so advise the shipper and request instructions in respect of the delivery of the goods. If, after reasonable effort, the carrier is unable to locate the shipper, the carrier may so advise the documentary shipper and request instructions in respect of the delivery of the goods;
(c) The carrier that delivers the goods upon instruction of the shipper or the documentary shipper pursuant to subparagraph (b) of this article is discharged from its obligation to deliver the goods under the contract of carriage, irrespective of whether the non-negotiable transport document has been surrendered to it.

Article 47
Delivery when a negotiable transport document or negotiable electronic transport record is issued
1. When a negotiable transport document or a negotiable electronic transport record has been issued:
(a) The holder of the negotiable transport document or negotiable electronic transport record is entitled to claim delivery of the goods from the carrier after they have arrived at the place of destination, in which event the carrier shall deliver the goods at the time and location referred to in article 43 to the holder:
(i) Upon surrender of the negotiable transport document and, if the holder is one of the persons referred to in article 1, subparagraph 10 (a)
(i), upon the holder properly identifying itself; or
(ii) Upon demonstration by the holder, in accordance with the procedures referred to in article 9, paragraph 1, that it is the holder of the negotiable electronic transport record;
(b) The carrier shall refuse delivery if the requirements of subparagraph (a) (i) or (a) (ii) of this paragraph are not met;
(c) If more than one original of the negotiable transport document has been issued, and the number of originals is stated in that document, the surrender of one original will suffice and the other originals cease to have any effect or validity. When a negotiable electronic transport record has been used, such electronic transport record ceases to have any effect or validity upon delivery to the holder in accordance with the procedures required by article 9, paragraph 1.
2. Without prejudice to article 48, paragraph 1, if the negotiable transport document or the negotiable electronic transport record expressly states that the goods may be delivered without the surrender of the transport document or the electronic transport record, the following rules apply:
(a) If the goods are not deliverable because (i) the holder, after having received a notice of arrival, does not, at the time or within the time period referred to in article 43, claim delivery of

the goods from the carrier after their arrival at the place of destination, (ii) the carrier refuses delivery because the person claiming to be a holder does not properly identify itself as one of the persons referred to in article 1, subparagraph 10 (a) (i), or (iii) the carrier is, after reasonable effort, unable to locate the holder in order to request delivery instructions, the carrier may so advise the shipper and request instructions in respect of the delivery of the goods. If, after reasonable effort, the carrier is unable to locate the shipper, the carrier may so advise the documentary shipper and request instructions in respect of the delivery of the goods;

(b) The carrier that delivers the goods upon instruction of the shipper or the documentary shipper in accordance with subparagraph 2 (a) of this article is discharged from its obligation to deliver the goods under the contract of carriage to the holder, irrespective of whether the negotiable transport document has been surrendered to it, or the person claiming delivery under a negotiable electronic transport record has demonstrated, in accordance with the procedures referred to in article 9, paragraph 1, that it is the holder;

(c) The person giving instructions under subparagraph 2 (a) of this article shall indemnify the carrier against loss arising from its being held liable to the holder under subparagraph 2 (e) of this article. The carrier may refuse to follow those instructions if the person fails to provide adequate security as the carrier may reasonably request;

(d) A person that becomes a holder of the negotiable transport document or the negotiable electronic transport record after the carrier has delivered the goods pursuant to subparagraph 2 (b) of this article, but pursuant to contractual or other arrangements made before such delivery acquires rights against the carrier under the contract of carriage, other than the right to claim delivery of the goods;

(e) Notwithstanding subparagraphs 2 (b) and 2 (d) of this article, a holder that becomes a holder after such delivery, and that did not have and could not reasonably have had knowledge of such delivery at the time it became a holder, acquires the rights incorporated in the negotiable transport document or negotiable electronic transport record. When the contract particulars state the expected time of arrival of the goods, or indicate how to obtain information as to whether the goods have been delivered, it is presumed that the holder at the time that it became a holder had or could reasonably have had knowledge of the delivery of the goods.

Article 48

Goods remaining undelivered

1. For the purposes of this article, goods shall be deemed to have remained undelivered only if, after their arrival at the place of destination:

(a) The consignee does not accept delivery of the goods pursuant to this chapter at the time and location referred to in article 43;

(b) The controlling party, the holder, the shipper or the documentary shipper cannot be found or does not give the carrier adequate instructions pursuant to articles 45, 46 and 47;

(c) The carrier is entitled or required to refuse delivery pursuant to articles 44, 45, 46 and 47;

(d) The carrier is not allowed to deliver the goods to the consignee pursuant to the law or regulations of the place at which delivery is requested; or

(e) The goods are otherwise undeliverable by the carrier.

2. Without prejudice to any other rights that the carrier may have against the shipper, controlling party or consignee, if the goods have remained undelivered, the carrier may, at the risk and expense of the person entitled to the goods, take such action in respect of the goods as circumstances may reasonably require, including:

(a) To store the goods at any suitable place;

(b) To unpack the goods if they are packed in containers or vehicles, or to act otherwise in respect of the goods, including by moving them; and
(c) To cause the goods to be sold or destroyed in accordance with the practices or pursuant to the law or regulations of the place where the goods are located at the time.
3. The carrier may exercise the rights under paragraph 2 of this article only after it has given reasonable notice of the intended action under paragraph 2 of this article to the person stated in the contract particulars as the person, if any, to be notified of the arrival of the goods at the place of destination, and to one of the following persons in the order indicated, if known to the carrier: the consignee, the controlling party or the shipper.
4. If the goods are sold pursuant to subparagraph 2 (c) of this article, the carrier shall hold the proceeds of the sale for the benefit of the person entitled to the goods, subject to the deduction of any costs incurred by the carrier and any other amounts that are due to the carrier in connection with the carriage of those goods.
5. The carrier shall not be liable for loss of or damage to goods that occurs during the time that they remain undelivered pursuant to this article unless the claimant proves that such loss or damage resulted from the failure by the carrier to take steps that would have been reasonable in the circumstances to preserve the goods and that the carrier knew or ought to have known that the loss or damage to the goods would result from its failure to take such steps.

Article 49
Retention of goods
Nothing in this Convention affects a right of the carrier or a performing party that may exist pursuant to the contract of carriage or the applicable law to retain the goods to secure the payment of sums due.

Chapter 10
Rights of the controlling party
Article 50
Exercise and extent of right of control
1. The right of control may be exercised only by the controlling party and is limited to:
(a) The right to give or modify instructions in respect of the goods that do not constitute a variation of the contract of carriage;
(b) The right to obtain delivery of the goods at a scheduled port of call or, in respect of inland carriage, any place en route; and
(c) The right to replace the consignee by any other person including
2. The right of control exists during the entire period of responsibility of the carrier, as provided in article 12, and ceases when that period expires.

Article 51
Identity of the controlling party and transfer of the right of control
1. Except in the cases referred to in paragraphs 2, 3 and 4 of this article:
(a) The shipper is the controlling party unless the shipper, when the contract of carriage is concluded, designates the consignee, the documentary shipper or another person as the controlling party;

(b) The controlling party is entitled to transfer the right of control to another person. The transfer becomes effective with respect to the carrier upon its notification of the transfer by the transferor, and the transferee becomes the controlling party; and
(c) The controlling party shall properly identify itself when it exercises the right of control.
2. When a non-negotiable transport document has been issued that indicates that it shall be surrendered in order to obtain delivery of the goods:
(a) The shipper is the controlling party and may transfer the right of control to the consignee named in the transport document by transferring the document to that person without endorsement. If more than one original of the document was issued, all originals shall be transferred III order to effect transfer of the right of control; and
(b) In order to exercise its right of control, the controlling party shall produce the document and properly identify itself. If more than one original of the document was issued, all originals shall be produced, failing which the right of control cannot be exercised.
3. When a negotiable transport document is issued:
(a) The holder or, if more than one original of the negotiable transport document is issued, the holder of all originals is the controlling party;
(b) The holder may transfer the right of control by transferring the negotiable transport document to another person in accordance with article 57. If more than one original of that document was issued, all originals shall be transferred to that person in order to effect a transfer of the right of control; and
(c) In order to exercise the right of control, the holder shall produce the negotiable transport document to the carrier, and if the holder is one of the persons referred to in article 1, subparagraph 10 (a) (i), the holder shall properly identify itself. If more than one original of the document was issued, all originals shall be produced, failing which the right of control cannot be exercised.
4. When a negotiable electronic transport record is issued:
(a) The holder is the controlling party;
(b) The holder may transfer the right of control to another person by transferring the negotiable electronic transport record in accordance with the procedures referred to in article 9, paragraph 1; and
(c) In order to exercise the right of control, the holder shall demonstrate, in accordance with the procedures referred to in article 9, paragraph 1, that it is the holder.

Article 52
Carriers execution of instructions
1. Subject to paragraphs 2 and 3 of this article, the carrier shall execute the instructions referred to in article 50 if:
(a) The person giving such instructions is entitled to exercise the right of control;
(b) The instructions can reasonably be executed according to their terms at the moment that they reach the carrier; and
(c) The instructions will not interfere with the normal operations of the carrier, including its delivery practices.
2. In any event, the controlling party shall reimburse the carrier for any reasonable additional expense that the carrier may incur and shall indemnify the carrier against loss or damage that the carrier may suffer as a result of diligently executing any instruction pursuant to this article,

including compensation that the carrier may become liable to pay for loss of or damage to other goods being carried.
3. The carrier is entitled to obtain security from the controlling party for the amount of additional expense, loss or damage that the carrier reasonably expects will arise in connection with the execution of an instruction pursuant to this article. The carrier may refuse to carry out the instructions if no such security is provided.
4. The carrier's liability for loss of or damage to the goods or for delay in delivery resulting from its failure to comply with the instructions of the controlling party in breach of its obligation pursuant to paragraph 1 of this article shall be subject to articles 17 to 23, and the amount of the compensation payable by the carrier shall be subject to articles 59 to 61.

Article 53
Deemed delivery
Goods that are delivered pursuant to an instruction in accordance with article 52, paragraph 1, are deemed to be delivered at the place of destination, and the provisions of chapter 9 relating to such delivery apply to such goods.

Article 54
Variations to the contract of carriage
1. The controlling party is the only person that may agree with the carrier to variations to the contract of carriage other than those referred to in article 50, subparagraphs 1 (b) and (c).
2. Variations to the contract of carriage, including those referred to in article 50, subparagraphs 1 (b) and (c), shall be stated in a negotiable transport document or in a non-negotiable transport document that requires surrender, or incorporated in a negotiable electronic transport record, or, upon the request of the controlling party, shall be stated in a non-negotiable transport document or incorporated in a non-negotiable electronic transport record. If so stated or incorporated, such variations shall be signed in accordance with article 38.

Article 55
Providing additional information, instructions or documents to carrier
1. The controlling party, on request of the carrier or a performing party, shall provide in a timely manner information, instructions or documents relating to the goods not yet provided by the shipper and not otherwise reasonably available to the carrier that the carrier may reasonably need to perform its obligations under the contract of carriage.
2. If the carrier, after reasonable effort, is unable to locate the controlling party or the controlling party is unable to provide adequate information, instructions or documents to the carrier, the shipper shall provide them. If the carrier, after reasonable effort, is unable to locate the shipper, the documentary shipper shall provide such information, instructions or documents.

Article 56
Variation by agreement
The parties to the contract of carriage may vary the effect of articles 50, subparagraphs I (b) and (c), 50, paragraph 2, and 52. The parties may also restrict or exclude the transferability of the right of control referred to in article 51, subparagraph I (b).

Chapter 11

Transfer of rights

Article 57

When a negotiable transport document or negotiable electronic transport record is issued

1. When a negotiable transport document is issued, the holder may transfer the rights incorporated in the document by transferring it to another person:

(a) Duly endorsed either to such other person or in blank, if an order document; or

(b) Without endorsement, if: (i) a bearer document or a blank endorsed document; or (ii) a document made out to the order of a named person and the transfer is between the first holder and the named person.

2. When a negotiable electronic transport record is issued, its holder may transfer the rights incorporated in it, whether it be made out to order or to the order of a named person, by transferring the electronic transport record in accordance with the procedures referred to in article 9, paragraph 1.

Article 58

Liability of holder

1. Without prejudice to article 55, a holder that is not the shipper and that does not exercise any right under the contract of carriage does not assume any liability under the contract of carriage solely by reason of being a holder.

2. A holder that is not the shipper and that exercises any right under the contract of carriage assumes any liabilities imposed on it under the contract of carriage to the extent that such liabilities are incorporated in or ascertainable from the negotiable transport document or the negotiable electronic transport record.

3. For the purposes of paragraphs 1 and 2 of this article, a holder that is not the shipper does not exercise any right under the contract of carriage solely because:

(a) It agrees with the carrier, pursuant to article 10, to replace a negotiable transport document by a negotiable electronic transport record or to replace a negotiable electronic transport record by a negotiable transport document; or

(b) It transfers its rights pursuant to article 57.

Chapter 12

Limits of liability

Article 59

Limits of liability

1. Subject to articles 60 and 61, paragraph 1, the carrier's liability for breaches of its obligations under this Convention is limited to 875 units of account per package or other shipping unit, or 3 units of account per kilogram of the gross weight of the goods that are the subject of the claim or dispute, whichever amount is the higher, except when the value of the goods has been declared by the shipper and included in the contract particulars, or when a higher amount than the amount of limitation of liability set out in this article has been agreed upon between the carrier and the shipper.

2. When goods are carried in or on a container, pallet or similar article of transport used to consolidate goods, or in or on a vehicle, the packages or shipping units enumerated in the contract particulars as packed in or on such article of transport or vehicle are deemed packages or shipping units. If not so enumerated, the goods in or on such article of transport or vehicle are deemed one shipping unit.

3. The unit of account referred to in this article is the Special Drawing Right as defined by the International Monetary Fund. The amounts referred to in this article are to be converted into the national currency of a State according to the value of such currency at the date of judgement or award or the date agreed upon by the parties. The value of a national currency, in terms of the Special Drawing Right, of a Contracting State that is a member of the International Monetary Fund is to be calculated in accordance with the method of valuation applied by the International Monetary Fund in effect at the date in question for its operations and transactions. The value of a national currency, in terms of the Special Drawing Right, of a Contracting State that is not a member of the International Monetary Fund is to be calculated in a manner to be determined by that State.

Article 60
Limits of liability for loss caused by delay
Subject to article 61, paragraph 2, compensation for loss of or damage to the goods due to delay shall be calculated in accordance with article 22 and liability for economic loss due to delay is limited to an amount equivalent to two and one-half times the freight payable on the goods delayed. The total amount payable pursuant to this article and article 59, paragraph 1, may not exceed the limit that would be established pursuant to article 59, paragraph 1, in respect of the total loss of the goods concerned.

Article 61
Loss of the benefit of limitation of liability
1. Neither the carrier nor any of the persons referred to in article 18 is entitled to the benefit of the limitation of liability as provided in article 59, or as provided in the contract of carriage, if the claimant proves that the loss resulting from the breach of the carrier's obligation under this Convention was attributable to a personal act or omission of the person claiming a right to limit done with the intent to cause such loss or recklessly and with knowledge that such loss would probably result.
2. Neither the carrier nor any of the persons mentioned in article 18 is entitled to the benefit of the limitation of liability as provided in article 60 if the claimant proves that the delay in delivery resulted from a personal act or omission of the person claiming a right to limit done with the intent to cause the loss due to delay or recklessly and with knowledge that such loss would probably result.

Chapter 13
Time for suit
Article 62
Period of time for suit
1. No judicial or arbitral proceedings in respect of claims or disputes arising from a breach of an obligation under this Convention may be instituted after the expiration of a period of two years.
2. The period referred to in paragraph 1 of this article commences on the day on which the carrier has delivered the goods or, in cases in which no goods have been delivered or only part of the goods have been delivered, on the last day on which the goods should have been delivered. The day on which the period commences is not included in the period.

3. Notwithstanding the expiration of the period set out in paragraph 1 of this article, one party may rely on its claim as a defence or for the purpose of set-off against a claim asserted by the other party.

Article 63
Extension of time for suit
The period provided in article 62 shall not be subject to suspension or interruption, but the person against which a claim is made may at any time during the running of the period extend that period by a declaration to the claimant. This period may be further extended by another declaration or declarations.

Article 64
Action for indemnity
An action for indemnity by a person held liable may be instituted after the expiration of the period provided in article 62 if the indemnity action is instituted within the later of:
(a) The time allowed by the applicable law in the jurisdiction where proceedings are instituted; or
(b) Ninety days commencing from the day when the person instituting the action for indemnity has either settled the claim or been served with process in the action against itself, whichever is earlier.

Article 65
Actions against the person identified as the carrier
An action against the bareboat charterer or the person identified as the carrier pursuant to article 37, paragraph 2, may be instituted after the expiration of the period provided in article 62 if the action is instituted within the later of:
(a) The time allowed by the applicable law in the jurisdiction where proceedings are instituted; or
(b) Ninety days commencing from the day when the carrier has been identified, or the registered owner or bareboat charterer has rebutted the presumption that it is the carrier, pursuant to article 37, paragraph 2.

Chapter 14
Jurisdiction
Article 66
Actions against the carrier
Unless the contract of carriage contains an exclusive choice of court agreement that complies with article 67 or 72, the plaintiff has the right to institute judicial proceedings under this Convention against the carrier:
(a) In a competent court within the jurisdiction of which is situated one of the following places:
(i) The domicile of the carrier;
(ii) The place of receipt agreed in the contract of carriage;
(iii) The place of delivery agreed in the contract of carriage; or
(iv) The port where the goods are initially loaded on a ship or the port where the goods are finally discharged from a ship; or

(b) In a competent court or courts designated by an agreement between the shipper and the carrier for the purpose of deciding claims against the carrier that may arise under this Convention.

Article 67
Choice of court agreements
1. The jurisdiction of a court chosen in accordance with article 66, subparagraph (b), is exclusive for disputes between the parties to the contract only if the parties so agree and the agreement conferring jurisdiction:
(a) Is contained in a volume contract that clearly states the names and addresses of the parties and either (i) is individually negotiated or (ii) contains a prominent statement that there is an exclusive choice of court agreement and specifies the sections of the volume contract containing that agreement; and
(b) Clearly designates the courts of one Contracting State or one or more specific courts of one Contracting State.
2. A person that is not a party to the volume contract is bound by an exclusive choice of court agreement concluded in accordance with paragraph I of this article only if:
(a) The court IS m one of the places designated in article 66, subparagraph (a);
(b) That agreement IS contained m the transport document or electronic transport record;
(c) That person is given timely and adequate notice of the court where the action shall be brought and that the jurisdiction of that court is exclusive; and
(d) The law of the court seized recognizes that that person may be bound by the exclusive choice of court agreement.

Article 68
Actions against the maritime performing party
The plaintiff has the right to institute judicial proceedings under this Convention against the maritime performing party in a competent court within the jurisdiction of which is situated one of the following places:
(a) The domicile of the maritime performing party; or
(b) The port where the goods are received by the maritime performing party, the port where the goods are delivered by the maritime performing party or the port in which the maritime performing party performs its activities with respect to the goods.

Article 69
No additional bases of jurisdiction
Subject to articles 71 and 72, no judicial proceedings under this Convention against the carrier or a maritime performing party may be instituted in a court not designated pursuant to article 66 or 68.

Article 70
Arrest and provisional or protective measures
Nothing in this Convention affects jurisdiction with regard to provisional or protective measures, including arrest. A court in a State in which a provisional or protective measure was taken does not have jurisdiction to determine the case upon its merits unless:
(a) The requirements of this chapter are fulfilled; or
(b) An international convention that applies in that State so provides.

Article 71
Consolidation and removal of actions
1. Except when there is an exclusive choice of court agreement that is binding pursuant to article 67 or 72, if a single action is brought against both the carrier and the maritime performing party arising out of a single occurrence, the action may be instituted only in a court designated pursuant to both article 66 and article 68. If there is no such court, such action may be instituted in a court designated pursuant to article 68, subparagraph (b), if there is such a court.
2. Except when there is an exclusive choice of court agreement that is binding pursuant to article 67 or 72, a carrier or a maritime performing party that institutes an action seeking a declaration of non-liability or any other action that would deprive a person of its right to select the forum pursuant to article 66 or 68 shall, at the request of the defendant, withdraw that action once the defendant has chosen a court designated pursuant to article 66 or 68, whichever is applicable, where the action may be recommenced.

Article 72
Agreement after a dispute has arisen and jurisdiction when the defendant has entered an appearance
1. After a dispute has arisen, the parties to the dispute may agree to resolve it in any competent court.
2. A competent court before which a defendant appears, without contesting jurisdiction in accordance with the rules of that court, has jurisdiction.

Article 73
Recognition and enforcement
1. A decision made in one Contracting State by a court having jurisdiction under this Convention shall be recognized and enforced in another Contracting State in accordance with the law of such latter Contracting State when both States have made a declaration in accordance with article 74.
2. A court may refuse recognition and enforcement based on the grounds for the refusal of recognition and enforcement available pursuant to its law.
3. This chapter shall not affect the application of the rules of a regional economic integration organization that is a party to this Convention, as concerns the recognition or enforcement of judgements as between member States of the regional economic integration organization, whether adopted before or after this Convention.

Article 74
Application of chapter 14
The provisions of this chapter shall bind only Contracting States that declare in accordance with article 91 that they will be bound by them.

Chapter 15
Arbitration
Article 75
Arbitration agreements
1. Subject to this chapter, parties may agree that any dispute that may arise relating to the carriage of goods under this Convention shall be referred to arbitration.

2. The arbitration proceedings shall, at the option of the person asserting a claim against the carrier, take place at:
(a) Any place designated for that purpose in the arbitration agreement; or
(b) Any other place situated in a State where any of the following places is located:
(i) The domicile of the carrier;
(ii) The place of receipt agreed in the contract of carriage;
(iii) The place of delivery agreed in the contract of carriage; or
(iv) The port where the goods are initially loaded on a ship or the port where the goods are finally discharged from a ship.
3. The designation of the place of arbitration in the agreement is binding for disputes between the parties to the agreement if the agreement is contained in a volume contract that clearly states the names and addresses of the parties and either:
(a) Is individually negotiated; or
(b) Contains a prominent statement that there is an arbitration agreement and specifies the sections of the volume contract containing the arbitration agreement.
4. When an arbitration agreement has been concluded in accordance with paragraph 3 of this article, a person that is not a party to the volume contract is bound by the designation of the place of arbitration in that agreement only if:
(a) The place of arbitration designated in the agreement is situated in one of the places referred to in subparagraph 2 (b) of this article;
(b) The agreement is contained in the transport document or electronic transport record;
(c) The person to be bound is given timely and adequate notice of the place of arbitration; and
(d) Applicable law permits that person to be bound by the arbitration agreement.
5. The provisions of paragraphs 1, 2, 3 and 4 of this article are deemed to be part of every arbitration clause or agreement, and any term of such clause or agreement to the extent that it is inconsistent therewith is void.

Article 76
Arbitration agreement in non-liner transportation
1. Nothing in this Convention affects the enforceability of an arbitration agreement in a contract of carriage in non-liner transportation to which this Convention or the provisions of this Convention apply by reason of:
(a) The application of article 7; or
(b) The parties' voluntary incorporation of this Convention in a contract of carriage that would not otherwise be subject to this Convention.
2. Notwithstanding paragraph 1 of this article, an arbitration agreement in a transport document or electronic transport record to which this Convention applies by reason of the application of article 7 is subject to this chapter unless such a transport document or electronic transport record:
(a) Identifies the parties to and the date of the charter party or other contract excluded from the application of this Convention by reason of the application of article 6; and
(b) Incorporates by specific reference the clause in the charter party or other contract that contains the terms of the arbitration agreement.

Article 77
Agreement to arbitrate after a dispute has arisen

Notwithstanding the provisions of this chapter and chapter 14, after a dispute has arisen the parties to the dispute may agree to resolve it by arbitration in any place.

Article 78
Application of chapter 15
The provisions of this chapter shall bind only Contracting States that declare in accordance with article 91 that they will be bound by them.

Chapter 16
Validity of contractual terms
Article 79
General provisions
1. Unless otherwise provided in this Convention, any term in a contract of carriage is void to the extent that it:
(a) Directly or indirectly excludes or limits the obligations of the carrier or a maritime performing party under this Convention;
(b) Directly or indirectly excludes or limits the liability of the carrier or a maritime performing party for breach of an obligation under this Convention; or
(c) Assigns a benefit of insurance of the goods in favour of the carrier or a person referred to in article 18.
2. Unless otherwise provided in this Convention, any term in a contract of carriage is void to the extent that it:
(a) Directly or indirectly excludes, limits or increases the obligations under this Convention of the shipper, consignee, controlling party, holder or documentary shipper; or
(b) Directly or indirectly excludes, limits or increases the liability of the shipper, consignee, controlling party, holder or documentary shipper for breach of any of its obligations under this Convention.

Article 80
Special rules for volume contracts
1. Notwithstanding article 79, as between the carrier and the shipper, a volume contract to which this Convention applies may provide for greater or lesser rights, obligations and liabilities than those imposed by this Convention.
2. A derogation pursuant to paragraph 1 of this article is binding only when:
(a) The volume contract contains a prominent statement that it derogates from this Convention;
(b) The volume contract is (i) individually negotiated or (ii) prominently specifies the sections of the volume contract containing the derogations;
(c) The shipper is given an opportunity and notice of the opportunity to conclude a contract of carriage on terms and conditions that comply with this Convention without any derogation under this article; and
(d) The derogation is neither (i) incorporated by reference from another document nor (ii) included in a contract of adhesion that is not subject to negotiation.
3. A carrier's public schedule of prices and services, transport document, electronic transport record or similar document is not a volume contract pursuant to paragraph 1 of this article, but a volume contract may incorporate such documents by reference as terms of the contract.

4. Paragraph 1 of this article does not apply to rights and obligations provided in articles 14, subparagraphs (a) and (b), 29 and 32 or to liability arising from the breach thereof, nor does it apply to any liability arising from an act or omission referred to in article 61.
5. The terms of the volume contract that derogate from this Convention, if the volume contract satisfies the requirements of paragraph 2 of this article, apply between the carrier and any person other than the shipper provided that:
(a) Such person received information that prominently states that the volume contract derogates from this Convention and gave its express consent to be bound by such derogations; and
(b) Such consent is not solely set forth in a carrier's public schedule of prices and services, transport document or electronic transport record.
6. The party claiming the benefit of the derogation bears the burden of proof that the conditions for derogation have been fulfilled.

Article 81
Special rules for live animals and certain other goods
Notwithstanding article 79 and without prejudice to article 80, the contract of carriage may exclude or limit the obligations or the liability of both the carrier and a maritime performing party if:
(a) The goods are live animals, but any such exclusion or limitation will not be effective if the claimant proves that the loss of or damage to the goods, or delay in delivery, resulted from an act or omission of the carrier or of a person referred to in article 18, done with the intent to cause such loss of or damage to the goods or such loss due to delay or done recklessly and with knowledge that such loss or damage or such loss due to delay would probably result; or
(b) The character or condition of the goods or the circumstances and terms and conditions under which the carriage is to be performed are such as reasonably to justify a special agreement, provided that such contract of carriage is not related to ordinary commercial shipments made in the ordinary course of trade and that no negotiable transport document or negotiable electronic transport record is issued for the carriage of the goods.

Chapter 17
Matters not governed by this Convention
Article 82
International conventions governing the carriage of goods by other modes of transport
Nothing in this Convention affects the application of any of the following international conventions in force at the time this Convention enters into force, including any future amendment to such conventions, that regulate the liability of the carrier for loss of or damage to the goods:
(a) Any convention governing the carriage of goods by air to the extent that such convention according to its provisions applies to any part of the contract of carriage;
(b) Any convention governing the carriage of goods by road to the extent that such convention according to its provisions applies to the carriage of goods that remain loaded on a road cargo vehicle carried on board a ship;
(c) Any convention governing the carriage of goods by rail to the extent that such convention according to its provisions applies to carriage of goods by sea as a supplement to the carriage by rail; or

(d) Any convention governing the carriage of goods by inland waterways to the extent that such convention according to its provisions applies to a carriage of goods without trans-shipment both by inland, waterways and sea.

Article 83
Global limitation of liability
Nothing in this Convention affects the application of any international convention or national law regulating the global limitation of liability of vessel owners.

Article 84
General average
Nothing in this Convention affects the application of terms in the contract of carriage or provisions of national law regarding the adjustment of general average.

Article 85
Passengers and luggage
This Convention does not apply to a contract of carriage for passengers and their luggage.

Article 86
Damage caused by nuclear incident
No liability arises under this Convention for damage caused by a nuclear incident if the operator of a nuclear installation is liable for such damage:
(a) Under the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 29 July 1960 as amended by the Additional Protocol of 28 January 1964 and by the Protocols of 16 November 1982 and 12 February 2004, the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963 as amended by the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention of 21 September 1988 and as amended by the Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage of 12 September 1997, or the Convention on Supplementary Compensation for Nuclear Damage of 12 September 1997, including any amendment to these conventions and any future convention in respect of the liability of the operator of a nuclear installation for damage caused by a nuclear incident; or
(b) Under national law applicable to the liability for such damage, provided that such law is in all respects as favourable to persons that may suffer damage as either the Paris or Vienna Conventions or the Convention on Supplementary Compensation for Nuclear Damage.

Chapter 18
Final clauses
Article 87
Depositary
The Secretary-General of the United Nations is hereby designated as the depositary of this Convention.

Article 88
Signature, ratification, acceptance, approval or accession

1. This Convention is open for signature by all States at Rotterdam, the Netherlands, on 23 September 2009, and thereafter at the Headquarters of the United Nations in New York.
2. This Convention is subject to ratification, acceptance or approval by the signatory States.
3. This Convention is open for accession by all States that are not signatory States as from the date it is open for signature.
4. Instruments of ratification, acceptance, approval and accession are to be deposited with the Secretary-General of the United Nations.

Article 89

Denunciation of other conventions

1. A State that ratifies, accepts, approves or accedes to this Convention and is a party to the International Convention for the Unification of certain Rules of Law relating to Bills of Lading signed at Brussels on 25 August 1924, to the Protocol to amend the International Convention for the Unification of certain Rules of Law relating to Bills of Lading, signed at Brussels on 23 February 1968, or to the Protocol to amend the International Convention for the Unification of certain Rules of Law relating to Bills of Lading as Modified by the Amending Protocol of 23 February 1968, signed at Brussels on 21 December 1979, shall at the same time denounce that Convention and the protocol or protocols thereto to which it is a party by notifying the Government of Belgium to that effect, with a declaration that the denunciation is to take effect as from the date when this Convention· enters into force in respect of that State.
2. A State that ratifies, accepts, approves or accedes to this Convention and is a party to the United Nations Convention on the Carriage of Goods by Sea concluded at Hamburg on 31 March 1978 shall at the same time denounce that Convention by notifying the Secretary-General of the United Nations to that effect, with a declaration that the denunciation is to take effect as from the date when this Convention enters into force in respect of that State.
3. For the purposes of this article, ratifications, acceptances, approvals and accessions in respect of this Convention by States parties to the instruments listed in paragraphs 1 and 2 of this article that are notified to the depositary after this Convention has entered into force are not effective until such denunciations as may be required on the part of those States in respect of these instruments have become effective. The depositary of this Convention shall consult with the Government of Belgium, as the depositary of the instruments referred to in paragraph 1 of this article, so as to ensure necessary coordination in this respect.

Article 90

Reservations

No reservation is permitted to this Convention.

Article 91

Procedure and effect of declarations

1. The declarations permitted by articles 74 and 78 may be made at any time. The initial declarations permitted by article 92, paragraph 1, and article 93, paragraph 2, shall be made at the time of signature, ratification, acceptance, approval or accession. No other declaration is permitted under this Convention.
2. Declarations made at the time of signature are subject to confirmation upon ratification, acceptance or approval.
3. Declarations and their confirmations are to be in writing and to be formally notified to the depositary.

4. A declaration takes effect simultaneously with the entry into force of this Convention in respect of the State concerned. However, a declaration of which the depositary receives formal notification after such entry into force takes effect on the first day of the month following the expiration of six months after the date of its receipt by the depositary.
5. Any State that makes a declaration under this Convention may withdraw it at any time by a formal notification in writing addressed to the depositary. The withdrawal of a declaration, or its modification where permitted by this Convention, takes effect on the first day of the month following the expiration of six months after the date of the receipt of the notification by the depositary.

Article 92
Effect in domestic territorial units
1. If a Contracting State has two or more territorial units in which different systems of law are applicable in relation to the matters dealt with in this Convention, it may, at the time of signature, ratification, acceptance, approval or accession, declare that this Convention is to extend to all its territorial units or only to one or more of them, and may amend its declaration by submitting another declaration at any time.
2. These declarations are to be notified to the depositary and are to state expressly the territorial units to which the Convention extends.
3. When a Contracting State has declared pursuant to this article that this Convention extends to one or more but not all of its territorial units, a place located in a territorial unit to which this Convention does not extend is not considered to be in a Contracting State for the purposes of this Convention.
4. If a Contracting State makes no declaration pursuant to paragraph 1 of this article, the Convention is to extend to all territorial units of that State.

Article 93
Participation by regional economic integration organizations
1. A regional economic integration organization that is constituted by sovereign States and has competence over certain matters governed by this Convention may similarly sign, ratify, accept, approve or accede to this Convention. The regional economic integration organization shall in that case have the rights and obligations of a Contracting State, to the extent that that organization has competence over matters governed by this Convention. When the number of Contracting States is relevant in: this Convention, the regional economic integration organization does not count as a Contracting State in addition to its member States which are Contracting States.
2. The regional economic integration organization shall, at the time of signature, ratification, acceptance, approval or accession, make a declaration to the depositary specifying the matters governed by this Convention in respect of which competence has been transferred to that organization by its member States. The regional economic integration organization shall promptly notify the depositary of any changes to the distribution of competence, including new transfers of competence, specified in the declaration pursuant to this paragraph.
3. Any reference to a "Contracting State" or "Contracting States" in this Convention applies equally to a regional economic integration organization when the context so requires.

Article 94

Entry into force

1. This Convention enters into force on the first day of the month following the expiration of one year after the date of deposit of the twentieth instrument of ratification, acceptance, approval or accession.

2. For each State that becomes a Contracting State to this Convention after the date of the deposit of the twentieth instrument of ratification, acceptance, approval or accession, this Convention enters into force on the first day of the month following the expiration of one year after the deposit of the appropriate instrument on behalf of that State.

3. Each Contracting State shall apply this Convention to contracts of carriage concluded on or after the date of the entry into force of this Convention in respect of that State.

Article 95

Revision and amendment

1. At the request of not less than one third of the Contracting States to this Convention, the Secretary-General of the United Nations shall convene a conference of the Contracting States for revising or amending it.

2. Any instrument of ratification, acceptance, approval or accession deposited after the entry into force of an amendment to this Convention is deemed to apply to the Convention as amended.

Article 96

Denunciation of this Convention

1. A Contracting State may denounce this Convention at any time by means of a notification in writing addressed to the depositary.

2. The denunciation takes effect on the first day of the month following the expiration of one year after the notification is received by the depositary. If a longer period is specified in the notification, the denunciation takes effect upon the expiration of such longer period after the notification is received by the depositary.

APPENDIX 4: MULTIMODAL DANGEROUS GOODS FORM

MULTIMODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, chapter VII, regulation 5; MARPOL 73/78, Annex III, regulation 4.

<table>
<tr><td colspan="2" rowspan="3">1 Shipper/Consignor/Sender
Tel / Fax no:

PTC:</td><td colspan="3">2 BKG REF NO :

HAZ ACCETANCE NO :</td></tr>
<tr><td></td><td colspan="2">4 Shipper's reference</td></tr>
<tr><td></td><td colspan="2">5 Freight Forwarder's reference</td></tr>
<tr><td colspan="2" rowspan="2">6 Consignee
Tel / Fax no:

PTC:</td><td colspan="3">7 Carrier / Line :</td></tr>
<tr><td colspan="3">SHIPPER'S DECLARATION
I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name, and are classified, packaged, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations.</td></tr>
<tr><td colspan="2">8 This shipment is within the limitations prescribed for:</td><td colspan="3" rowspan="4">9 Additional handling information</td></tr>
<tr><td>PASSEGNER AND CARGO</td><td>CARGO ONLY</td></tr>
<tr><td>10 Vessel and date</td><td>11 Port of loading</td></tr>
<tr><td>12 Port of discharge</td><td>13 Destination</td></tr>
<tr><td colspan="2">14 Shipping Marks *Number and kind of packages; description of goods</td><td>Gross KGS</td><td>Net KGS</td><td>Cube(m3)</td></tr>
</table>

COMM: PROPER SHIPPING NAME: CLASS: UNNO: FLASHPOINT: PACKING GROUP: IMDG: EMS: IIP CODE: NO OF PKGS: Marine Pollutant: Emergency contact / no: Container type:			
Total cube (m3)			

Other Details

15 Container identification no.	16 Seal number(s)	17 Container size & type & NO	18 Tare kg	19 Total gross (incl. tare) (kg)

CONTAINER PACKING CERTIFICATE I hereby declare that the goods described above have been placed/loaded into the container/vehicle identified above in accordance with the applicable provisions. **MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING	21 RECEIVING ORGANIZATION RECEIPT Received the above number of packages/containers/trailers in apparent good order and condition, unless stated hereon: RECEIVING ORGANIZATION RE-MARKS:	
20 Name of company	Haulier's name	22 Name of company (OF SHIPPER PREPARING THIS NOTE)
Name/status of declarant	Vehicle reg no.	Name/status of declarant
Place and date	Signature and date	Place and date

Signature of declarant	DRIVER'S SIGNATURE	Signature of declarant
* DANGEROUS GOODS You must specify proper shipping name, hazard class, UN No., Packaging group, (where assigned) Marine pollutant and observe the mandatory requirements, under applicable national and international governmental regulations. For the purpose of the IMDG Code see 5.4.1. ** For the purpose of the IMDG Code see 5.4.2.		

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