

**National University of Advanced Legal Studies,
Kochi**



DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTERS OF LAWS (2019-
20)

ON THE TOPIC
***"LIABILITY ISSUES CONCERNING THE CARRIAGE OF
DANGEROUS GOODS BY SEA: INTERNATIONAL AND INDIAN
PERSPECTIVE"***,

Under The Guidance and Supervision Of
Ms. ARYA P B

Submitted by:-
ANUPAMA RADHAKRISHNAN
Register No: LM0220016
LL.M (INTERNATIONAL TRADE LAW)

CERTIFICATE

This is to certify that **ANUPAMA RADHAKRISHNAN**, Reg. No: LM0220016 has submitted his dissertation titled, "*LIABILITY ISSUES CONCERNING THE CARRIAGE OF DANGEROUS GOODS BY SEA: INTERNATIONAL AND INDIAN PERSPECTIVE*", in partial fulfilment of the requirement for the award of Degree of Master of Laws in Constitutional and Administrative Law to the National University of Advanced Legal Studies, Kochi under my guidance and supervision. It is also affirmed that the dissertation submitted by her is original, bonafide and genuine.

Date: 22-10-2021 **Ms ARYA P B**

Place: Ernakulam Guide and Supervisor
NUALS

DECLARATION

I declare that this dissertation titled, "*LIABILITY ISSUES CONCERNING THE CARRIAGE OF DANGEROUS GOODS BY SEA: INTERNATIONAL AND INDIAN PERSPECTIVE*", researched and submitted by me to the National University of Advanced Legal Studies in partial fulfilment of the requirement for the award of Degree of Master of Laws in Constitutional and Administrative Law, under the guidance and supervision of **Ms Arya P B** is an original, bona fide and legitimate work. It has been pursued an academic interest. This work or any type thereof has not been submitted by me or anyone else to award another degree of either this University or any other University.

Date: 22-10-2021 **Anupama Radhakrishnan**

Place: Ernakulam Reg. no: LM0220016

LL.M (International Trade Law)

NUALS

ACKNOWLEDGEMENT

I am pleased to acknowledge my deepest thanks and gratitude to **Ms. Arya P B** for her valuable guidance and suggestions throughout my research. It was a great honour to work under her supervision.

I want to extend my gratitude to the Vice-Chancellor **Prof. (Dr.) K.C Sunny** for his constant encouragement and support. I express my sincere thanks to **Prof. (Dr.) Mini S**, Director of Centre for Post Graduate Legal Studies, for her supports and encouragement extended during the course.

I would further extend my deep-felt gratitude to all the faculties of NUALS for their constant encouragement.

I would also like to thank the Library staff for the support in collecting and compiling material for this research.

This dissertation was completed during the COVID 19 pandemic crisis when the whole world was battling. Like everyone, the researcher also had to face her fair share of emotional turmoil due to uncertain situations. I must express my profound gratitude to my family, friends and batch-mates for their constant support and encouragement during the troubling times.

With genuine humility, I am thankful to The Almighty for all his uncountable bounties and blessings.

ANUPAMA

RADHAKRISHNAN

ABBREVIATIONS

1. BCH Bulk Chemical Code
2. CETGD United Nations Committee of Experts on the Transport of Dangerous Goods
3. CLC Civil Liability Convention
4. CLC International Convention on Civil Liability for Oil Pollution Damage
5. CMI Committee Maritime International
6. COGSA Carriage of Goods by Sea Act
7. ECOSOC Economic and Social Council
8. HNS International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea
9. IAEA International Atomic Energy Agency
10. IBC International Bulk Chemical Code
11. IBC Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
12. IGC International Gas Carrier Code
13. IGC Code International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk
14. IMDG Code International Maritime Dangerous Goods Code
15. LNG Liquid Natural Gas
16. LSA Life-Saving Appliances
17. MARPOL International Convention for the Prevention of Pollution from Ships
18. SOLAS Convention for the Safety of Life at Sea
19. TBM Trans Boundary Movement
20. UNCITRAL United Nations Commission on International Trade Law
21. UNCLOS United Nations Convention on the Law of the Sea, 1982

TABLE OF CASES

1. Goodwin Ferrerira &Co v. Lamport &Holt, Ltd(1929) 34 L1. L.
2. Ionmar Compania Nviera, S.A v. Olin Corpn, 666 F.2d 897(1982)
3. Junior Books Ltd v. Veitchi Co. Ltd [1983]1 A.C. 520
- 4 .Mediterranean Freight Services Ltd V BP OIL International Ltd, [1993] 1 Lloyd's Rep. 257
5. Rylands v. Fletcher Island (1868). L.R.3 H.L. 330
6. Sucrest Corp v. M.V. Jennifer 455 F. Supp. 371 (Maine N.D)
7. The Athanasia Coninos and Georges Chr Lemos [1990] 1 Llyod's Rep 277
8. Ultramares Corporation v. Touche (1931), 255NY 170 at p 179.
9. United States v. M/V Santa Clara, 887 F, Supp, 825

TABLE OF CONTENT

<u>Content</u>	<u>Page No</u>
Chapter 1 – Introduction	11
(1.0) Introduction	12
(1.1) Statement of the Problem	13
(1.2) Scope of Study	13
(1.3) Research Questions	13
(1.4) Objectives	13
(1.5) Hypothesis	14
(1.6) Research Methodology	14
(1.7) Period of Study.	15
(1.8) Limitations	15
(1.9) Chapterisation	15
Chapter 2 – International Regime on Carriage of Dangerous Goods by Sea	17
(2.1) The Concept of Dangerous Goods: Terminology in Perspective.	18
(2.2.) Conventions and Codes.	19
(2.2.2) The IMDG and other relevant Codes.	19

<p>(2.2.2) London Convention, MARPOL and Basel Convention:</p> <p>Comparative Study</p> <p>(2.3) SOLAS.</p> <p>(2.4) MARPOL</p> <p>(2.5) The UN Recommendations on the Transport of Dangerous Goods.</p> <p>(2.6) Concluding remarks.</p>	<p>19</p> <p>20</p> <p>25</p> <p>27</p> <p>29</p> <p>30</p>
<p>Chapter 3 – Civil Liability in respect of Carriage of Dangerous Goods by sea</p> <p>(3.1) General principles.</p> <p>(3.2) Liability in Tort: - Fault-based, strict, and absolute.</p> <p> (3.2.1) Fault-based liability.</p> <p> (3.2.2) strict liability.</p> <p> (3.2.3) Absolute liability.</p> <p>(3.3) Liabilities in Contract.</p> <p>(3.4) Remedies in Contract and Tort.</p> <p> (3.4.1) Damages and Damage in general.</p> <p> (3.4.2) damage on the Marine Environment.</p> <p>(3.5) the carrier-shipper relationship: - mutual obligation and liabilities.</p> <p>(3.6) Remedies under convention law.</p> <p>(3.7) Concluding Remarks.</p>	<p>31</p> <p>32</p> <p>32</p> <p>32</p> <p>32</p> <p>33</p> <p>33</p> <p>35</p> <p>36</p> <p>36</p> <p>37</p> <p>37</p> <p>39</p> <p>57</p>
<p>CHAPTER 4- -Third Party Liability for Damage Affected by Dangerous Goods</p> <p>4.1 Marine Safety and Maritime Pollution Connected Liability: Preliminary Remarks</p> <p>4.2 Ship-source Oil Pollution</p>	<p>58</p> <p>59</p> <p>59</p>

4.2.1 Liability	60
4.2.2 Compensability	61
4.2.2.1 Damage to Property	62
4.2.2.2 Economic Loss	63
4.2.2.3 Consequential Loss	64
4.2.2.4 Pure Economic Loss	64
4.2.2.5 Relational Economic Loss	65
4.3 Liability under Convention Regimes	65
4.3.1 Hazardous, Noxious and Harmful Substances	67
4.3.2 Preliminary Observations	67
4.3.3 HNS Convention	67
4.4 Nuclear Damage	68
4.4.1 Preliminary Remarks	68
4.4.2 Relevant Convention Law	68
4.4.3 Non-existence of General Carriage Conventions Relating to Nuclear Material	68
4.4.4 Special Convention Regime for Sea Carriage of Nuclear Material	69
4.5 Concluding Remarks	70
Chapter 5 - Liabilities of the parties.	71
(5.1) General	72
(5.2) Extent of shipper's liability.	73
(5.3) Liability to other cargo owner third parties.	76
(5.4) Concluding Remarks	78
CHAPTER-6 Indian Regime on the Carriage of Dangerous Goods by Sea	79
(6.1) Introduction	80
(6.2) Indian law relating to carriage of dangerous goods by sea.	80

(6.2.1) The Indian Carriage Of Goods By Sea Act.1925.	80
(6.2.2)_Merchant Shipping Act,1958	81
(6.2.3)_Merchant Shipping (Carriage of Cargo) RULES, 1991.	82
(6.3) International Conventions ratified by India.	83
(6.3.1) IMDG Code	83
(6.3.2) SOLAS Convention	84
(6.3.3) MARPOL Convention	84
(6.3.4) UN Recommendation in Transport of Dangerous Goods	84
(6.4) CONCLUDING REMARKS	85
Chapter-7 Issues with the Liability of the Carrier and Shipper	86
(7.1)Introduction	87
(7.2) Unlimited Liability of the Shipper	87
(7.3) Insufficiency of Dangerous Goods Regulation.	88
(7.4)Identity of the Shipper: Charter or Physical Shipper.	90
(7.5)Concluding Remarks	91
Chapter 8 – Conclusion	92
Bibliography	94

CHAPTER -1

INTRODUCTION

- (1.0) Introduction**
- (1.1) Statement of the Problem**
- (1.2) Scope of Study**
- (1.3) Research Questions**
- (1.4) Objectives**
- (1.5) Hypothesis**
- (1.6) Research Methodology**
- (1.7) Period of Study.**
- (1.8) Limitations**
- (1.9) Chapterisation**

(1.0) INTRODUCTION

It is perhaps sarcasm to say that passage by sea is an intrinsically risky business. Unquestionably, there are numerous other dangerous occupations on land below the ground, and as aviation on the air, there is mining. Nevertheless, sea transportation is the primogenitor of all. In the present background, other activities at sea, such as the operation of offshore platforms for exploration and exploitation of gas and oil, is an equal risky business. The cause of shipboard danger is mainly attributable to the nature of the cargo and other substances carried by ship, which is a cause internal to the vessel. However, external factors are there, originating from the hostile environment the container exposed at sea.

Dangerous substances onboard ships consist of oils, chemicals, radioactive materials and the like carried as cargo. Nevertheless, there are non-cargo substances, such as oil and fuel held in a ship's bunkers or lubricating oils taken as ship stores.

Aside from the hazardous personalities of these substances, they are also pollutants that can damage or harm the marine environment and physical injury to humans, not to mention damage to or loss of their property. Thus marine protection and pollution are two sides of the same coin concerning shipboard substances posing various risks. The carriage of goods by sea mainly emphasises damage to and loss of goods. There is a rapid increase in the carriage of dangerous goods by sea in the present world. This increase pays attention to the explosions, spillages, pollution, and accidents. The worldwide concern with these risks has led to the adoption of international technical standards to promote safe carriage and the insertion of special provisions in the contracts of carriage. Also, growing environmental awareness and concern with the economic cost implications of maritime casualties have given rise to the regulation of compensation and liability regarding damage caused by the dangerous goods. A vast number of goods are carried by sea nowadays.

Moreover, world trade depends mainly on the transport of dangerous goods. About 50 per cent of goods transported by sea are estimated that they are dangerous goods. These

goods are harmful to persons, life and the environment. There are some worst histories of shipping disasters and minor accidents that occurred by the hazardous goods. So, there is a need for the safe carriage of dangerous goods. This study focuses on the International conventions, the national legislation that came into force for the innocuous carriage of hazardous goods by sea and the liabilities and issues with the parties' liability.

(1.1) Statement of the Problem

What are the civil and third party liability concerning the carriage of dangerous goods by sea. And this study also focuses on the issues with the liabilities of the parties. It also examine various laws dealing with the carriage of hazardous goods by sea in India.

(1.2) Scope of Study

This study is all about the international conventions on carriage of dangerous goods by sea. It also focuses on the liabilities of the parties to the carriage of dangerous goods by sea and the issues with the liabilities. This study also deals with the Indian laws regarding the carriage of dangerous goods sea.

(1.3) Research Questions

- What are the International Regulatory laws adopted by the international community concerning the carriage of dangerous goods by sea?
- What are the liabilities concerning the contractual obligation of the carriers and shippers concerning the carriage of dangerous goods by sea?
- What are the liabilities in torts concerning loss or damage suffered by third parties and the environment from dangerous substances carried on the ship?

- What all are the issues with the liabilities of the parties to the carriage of dangerous goods?
 - What is India's current legal regime concerning the carriage of dangerous goods by sea?

(1.4) Objectives

The objective of the research is as follows:

- To examine the International regime on Carriage of Dangerous Goods by Sea.
- To examine the legal regime on the Carriage of Dangerous Goods by Sea under Indian Law.
- To examine the liability issues concerning the carriage of dangerous goods by sea.

(1.5) Hypothesis

. There exists a lack of clarity on liabilities regarding the carriage of dangerous goods by sea in both International Conventions and Indian legal regimes.

- As India has not ratified some important International Conventions, India stands in a very disadvantageous position in dealing with disputes concerning the carriage of dangerous goods by sea.

(1.6) Research Methodology

The method used for the dissertation is doctrinal research or non-empirical research methodology. The doctrinal method comprises the study of relevant international treaties, national legislation, case law and scholarly works in inquiry. The research does not

contain the methodological issues commonly related to other social science disciplines, such as statistical or quantitative analyses.

(1.7) Period of Study.

The total period of study is 4-5 months.

(1.8) Limitations

The limited resources and reliability of sources.

(1.9) Chapterisation

❖ Chapter-1: Introduction

This chapter deals with the introduction to the study, which includes the scope of the study, research objectives, statement of the problem, research questions, objectives, hypothesis, research methodology and limitations of the study.

❖ Chapter-2: International regime on the carriage of dangerous goods by sea.

The second chapter contextualises an expose on the international regime of sea carriage of dangerous goods, with the law setting out insignificant conventions and codes. The notion of "dangerous" and other appellations such as "hazardous" and the likes are discussed. The discussion focuses on the SOLAS and MARPOL Conventions.

❖ Chapter-3: Civil Liabilities on Carriage of Dangerous Goods by Sea.

In this chapter, the vital interrelationship between the shipper and carrier is emphasised by analysing the significant features of the Hague-Visby, Hamburg and Rotterdam Rules, together with their evolutionary aspects extending to a comparative analysis.

❖ Chapter-4: Third parties liability for damage caused by dangerous goods.

This chapter deals with liability and compensability regarding the ship source oil pollution. It also deals with the conventions dealing with the "hazardous and noxious substances" and carriage of nuclear materials.

❖ Chapter-5: Liabilities of the party

This chapter deals with the extent of shippers liability,

❖ Chapter-6: Indian regime on the carriage of dangerous goods b sea,

This chapter focuses on the Indian laws that deal with the carriage of dangerous goods like the Indian Carriage of Goods By Sea Act 1925, the Merchant Shipping Act 1958 and the Merchant Shipping (Carriage) Cargo) Rules, 1991. Also discussed, the International Conventions Government of India ratifies those for the safe carriage of dangerous goods by seas, such as the IMDG Code, SOLAS, MARPOL, and UN Recommendations on Transport of Dangerous goods.

❖ Chapter-7: Issues with the liability of the parties

This chapters focuses on the issues reled to the liabilities of the shipper and carrier like unlimited liability of the shipper, insufficiency of the dangerous goods regulation etc.

❖ Chapter-8: Conclusion

Chapter-2

International Regime on Carriage of Dangerous Goods by Sea.

(2.1)The Concept of Dangerous Goods: Terminology in Perspective.

(2.2)Conventions and Codes.

The IMDG and other relevant Codes.

**(2.2.1) London Convention, MARPOL and Basel Convention:
Comparative Study**

(2.3)SOLAS.

(2.4)MARPOL

(2.5)The UN Recommendations on the Transport of Dangerous Goods.

(2.6) Concluding remarks.

(2.1)The Concept of Dangerous Goods: Terminology in Perspective

The expression of Dangerous good in this context induces the notion of danger in the sea, and it raises the question of the definition of dangerous goods and its legal status in maritime law. The legal connotation of "dangerous good is materialised in the late nineteenth century through British legislation¹ before that; there were hardly a few occasions of carrying dangerous goods by sea². So, there was no need for any regime regulating the carriage of dangerous goods internationally³.

Carriage of dangerous goods by sea increased all of a sudden with potentially hazardous situations such as explosions, oil spillages, fires etc. these situations bring more public awareness regarding the carriage of dangerous goods and their impact and demanded actions from public authorities. Public and private concerns led to more rational policies and the articulation of more stringent regulatory rules with penal punishments for its non-compliances⁴.

As mentioned above, much of the law we today have to belong to the regulatory domain. These laws are voluminous in content and details. To understand the regulatory law, one

¹Section 301 and 446 of UK Merchant Shipping Act 1894.

² Güner-Özbek, Meltem Deniz. Hamburg Studies on Maritime Affairs: The Carriage of Dangerous Goods by Sea. (Berlin, Heidelberg, DE: Springer, 2007); pp50-60.

³ ibid

⁴Chambliss, William J. "Types of Deviance and the Effectiveness of Legal Sanctions." (1967)Wis. L. Rev, 703.

should struggle with the apposite terminology to determine the similarities and distinctions between the legal and the scientific and technical viewpoints. As mentioned at first, the danger is inherent in the ship. It is more when she comes in on the sea as given internal conditions onboard combined with the external forces exerted by the environment. This danger is largely generic in characteristic as the ship is mainly exposed to internal states of the board and the external forces of the climate during most of its lifetime. The specific synonym such as harm, risk and their corresponding consequences are characterised by the notion that loss, damage, and injury may be used in a particular situation. Still, the distinction between these is unclear, and whenever attempts to construe these terms in a meaningfully appreciable way turned out to be exercised in futility.

Luckily, these terminology issues do not create any confusion in practical terms. Still, there may be differences in legal implications on how a term can be used in connection with a particular maritime incident. Depending on the context, the terms can be and are used interchangeably in several instances. Thus, many adjectives are surrounding the generic term dangerous⁵, such as "hazardous", "unsafe", and "harmful", related to safety as well as environmental pollution. Apart from these terms, harm, loss, injury, damage etc., are appropriate to use in the context of sea transportation of the substances. In the HNS Convention 1996, the term "hazardous and noxious substance"⁶ describes the cargo onboard a ship with the characteristics that fit into the definitions of the two terms used. This private law liability addresses both the safety and pollution issues.

It's also essential that this connection has complied with statutory instruments' terms and definitions in international and domestic legal regimes.

⁵ See IMDG Code; See also Articles about dangerous goods in Article 32 of the Rotterdam Rules, article 4(6) of the Hague Visby Rules and article 13 of the Hamburg Rules. See also Article 1(5) HNS Convention, "Hazardous and noxious substances" (HNS) means: (a) any substances, materials and articles carried on board a ship as cargo, referred to in (i) to (vii).

⁶ .Article 1(5). International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996

(2.2) Conventions and Codes

2.2.1 The IMDG Codes and the other Relevant CODES.

The IMDG Code is a mandatory instrument which is a voluminous set of regulations consist of two volumes. This code deals with technical requirements about packing, stowage, container traffic, segregation of incompatible substances and other matters relating to the care of dangerous goods transported by sea⁷. This code was non-mandatory under SOLAS, but, later the state party to the SOLAS incorporated the provisions of IMDG Codes as compulsory regulations into their domestic law; it gained the mandatory status in January 2004. The other three mandatory necessary Codes are the Bulk Chemical Code (BCH), the International Bulk Chemical Code (IBC) and the International Gas Carrier Code (IGC)⁸. These Codes deal with the carriage of chemicals and gas by sea.

2.2.2 London Convention, MARPOL and Basel Convention: Comparative

Study

One important regulatory mechanism in hazardous substances is the Basel Convention of 1989 (BASEL)⁹. It produced the United Nations Environment Programme (UNEP), which controls the transboundary movement of "dangerous" wastes¹⁰. Basel is normally a

⁷ . . See "International Maritime Dangerous Goods (IMDG) Code"
http://www.imo.org/blast/mainframe.asp?topic_id=158#1; accessed march 2021.

⁸ John Norton Moore IMO "Interface with the Law of the Sea Convention." In Myron H. Nordquist, John Norton (eds) *Current Maritime Issues , the International Maritime Organization Volume iv of Center for Oceans Law and Policy*, pp269; pp 223.364

⁹ The use of "shipboard" is arguably wider than "normal".

¹⁰ See 20.3.1 of IBC Code –"The requirements of this chapter are applicable to the transboundary movement of liquid chemical wastes in bulk by seagoing ships and shall be considered in conjunction with all other requirements of this Code. 20.3.2 of IBC Code-The requirements of this chapter do not apply to:1 wastes derived from shipboard operations which are covered by the requirement of MARPOL 73/78; and substances, solutions or mixtures containing or contaminated with radioactive materials which are subject to the applicable requirements for radioactive materials."

non-self-executing convention, regulatory and covers no provisions that directly impinge on ships or shipowners/operators.

Basel requirements are largely directed to or imposed on state parties. The Convention controls and regulates the transboundary movement of dangerous wastes and other wastes for sound environmental management. Particularly, the MARPOL, Basel convention and the London Convention on Dumping of Wastes at Sea¹¹ are strictly interconnected, which calls for a comparative analytical treatment of the three instruments and a deliberation of the IBC Code 51as.

In Article 1(4) of Basel, it is said that "rubbishes which originate from the normal operations of a ship, the release of which is dealt by another international instrument, are exempted from the scope of this Convention". This clause was introduced at the initiation of the IMO to safeguard the co-existence of two clear and distinct international regimes, one governing the control of dumping of dangerous wastes and trans-border movements and the other regulating "release of operative wastes from vessels"¹².

While we're on the subject, subparagraph 20.3.2.1 of the IBC Code offers that the necessities of chapter 20 do not apply to "wastes resulting from shipboard tasks covered by the requirements of MARPOL 73/78"¹³. Therefore, it must be detected that MARPOL and IBC Code, MARPOL and Basel, and MARPOL and London Dumping, chapter 20 are conjointly élite. Certainly, it is submitted that MARPOL and Basel are mutually irreconcilable.

¹¹ Iwona Rummel-Bulska, "The Basel Convention and the UN Convention on the Law of the Sea" in Henrik Ringbom (Ed.) *Competing Norms in the Law of Marine Environmental Protection – Focus on Ship Safety and Pollution Prevention*, London-The Hague-Boston: Kluwer Law International, 1997 at p.102. The author was previously Executive Secretary of the Basel Convention Secretariat

¹² Louise Angelique de La Fayette. "The International and European Community Law Applicable to the *Probo Koala* Affair" (unpublished) London: October 2008, p.17.

¹³ The use of "shipboard" is arguably wider than "normal".

The expression "normal operations"¹⁴ in the Basel convention has raised some differences of view in terms of how it should be interpreted. One reviewer has pronounced it as follows: "it appears to be generally understood that wastes derived from or generated during normal operations of vessels are those directly related to the resolve of a vessel (emphasis added), that is conveying of goods at sea. Wastes created during such passage are from machinery spaces (bilge water, cooling water, etc.), tank spaces, and the ejection at sea of these types of "wastes" is regulated by MARPOL¹⁵." It has been stated that "the word 'normal' is immaterial to the exclusion clause and does not have to be defined. The exclusion was planned to differentiate wastes generated onboard a vessel from wastes carried as cargo¹⁶. A conflicting view is that the word "normal" is not categorically needless. The normality of a shipboard process is a function of the ship type and the trade in which it is engaged. Ships today are purpose-built. Therefore, a normal procedure for an oil tanker is not necessarily normal for a container ship, passenger ship, or fishing boat.

Another significant issue is - what creates trashes under the Basel Convention. Article 2.1, define "wastes" as " objects or substances which are disposed of or are necessary to be disposed of by the provisions of national law". The first part of the definition opinions to a plain or ordinary meaning: the second part specifies the definition by making it subject to whatever is prescribed under domestic law. Article 1 offers that the scope of the Convention extends to hazardous wastes and other wastes. Paragraph 1(a) refers to

¹⁴ See 20.3.1 of IBC Code –"The requirements of this chapter are applicable to the transboundary movement of liquid chemical wastes in bulk by seagoing ships and shall be considered in conjunction with all other requirements of this Code. 20.3.2 of IBC Code-The requirements of this chapter do not apply to:1 wastes derived from shipboard operations which are covered by the requirement of MARPOL 73/78; and substances, solutions or mixtures containing or contaminated with radioactive materials which are subject to the applicable requirements for radioactive materials."

¹⁵ Iwona Rummel-Bulska, "The Basel Convention and the UN Convention on the Law of the Sea" in Henrik Ringbom (Ed.) *Competing Norms in the Law of Marine Environmental Protection – Focus on Ship Safety and Pollution Prevention*, London-The Hague-Boston: Kluwer Law International, 1997 at p.102. The author was previously Executive Secretary of the Basel Convention Secretariat.

¹⁶ Louise Angelique de La Fayette. "The International and European Community Law Applicable to the *Probo Koala* Affair" (unpublished) London: October 2008, p.17.

substances scheduled in Annex I that are prima facie dangerous wastes unless they do not own any of the features in Annex III¹⁷.

This part of paragraph 1 reflects an express objective depiction of what is intended to be considered hazardous waste. By contrast, subparagraph (b) redirects a subjective determination through domestic legislation of a state party to the Convention of what establishes dangerous waste. "Other wastes" are mentioned in Annex II, which only say household wastes are immaterial.

While we're on the subject, the terms "food waste" and "wastewater" are used respectively in Annexes III and IV of MARPOL.¹⁸ "Shipboard incineration" is defined under VI as "incineration of waste or other matter on board a vessel if such wastes or other matter were generated during the normal operation of that ship."¹⁹ The expression "wastes or other matter" is imported from the London Convention, which deals with shipboard incineration.

Moreover, the term "disposal" needs attention. The word Disposal is defined in Article 2.4 of Basel Convention as "any process stated in Annex IV"²⁰. This Annex covers the title "Disposal Operations" and contains a list of processes divided into two groups. Functions mentioned under the first group do not lead to recovery, resource, reclamation, recycling, alternative uses or direct reuse. The other group involves processes that are contradictory to the first group²¹. Disposal under Basel is not just the concept of removal of wastes. The London Convention is categorised as "dumping"; somewhat; the attention is on the disposal of "dangerous" wastes.

The word "transboundary movement" is defined in Article 2, paragraph 3, which specifies "any movement of dangerous wastes or other wastes from an area under the

¹⁷ See Article 2 of Basel Convention.

¹⁸ See Annex III Regulations for the Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form; and IV Regulations for the Prevention of Pollution by Sewage from Ships.

¹⁹ See Annex II Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk. Annex; Annex III Regulations for the Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form; and IV Regulations for the Prevention of Pollution by Sewage from Ships.

²⁰ See Article 2 DEFINITION of Basel Convention

²¹ See Annex IV of Disposal Operations of Basel Convention

national jurisdiction of one state to or through an area under the national jurisdiction of one more state or to or through an area not under the national jurisdiction of any state, on condition that at least two states are involved in the movement". The movement of dangerous waste from the high seas does not fall within the scope of the definition²².

The idea of "transboundary movement" (TBM) is the very spirit of the Basel Convention is echoed in the title of the mechanism in conjunction with dangerous wastes and their disposal²³. TBM is associated with the ideas of importation and export of unsafe wastes and the concept of planned or actual disposal. The connections are marked in the definitions of "State of import", "State of transit", and State of export" in Article 2, paragraphs 10, 11 and 12²⁴. It is submitted that all these ideas are relevant regarding movements across the seas only where the object is to dispose of dangerous wastes and do not apply to commercial ship operations where the thing is to carry cargo and discharge slop generated on board compulsion under MARPOL²⁵.

Therefore, the Basel Convention has also been used as the international governing instrument for dealing with vessels heading for the scrapyard on their "end of life" voyage²⁶. The idea of TBM as defined in the Convention makes Basel applicable to vessel recycling even though there is now a new convention addressing that issue. Perhaps Basel's application to such vessels has now been beyond the Hong Kong Convention on Recycling of Ships of IMO²⁷.

In bringing this talk to a close, it is noted that the problem of terms, which is at the heart of all the conventions and other instruments mentioned above, is not exhaustive. In the

²² See "The Application of the Basel Convention to Hazardous Wastes and other Wastes Generated on Board Ships" (Basel Secretariat Document, 4 April 2011) at p.6.

²³ Kummer, Katharina. *International Management of Hazardous Wastes: the Basel Convention and Related legal Rules*. (Oxford University Press on Demand, 1999); pp 101-140

²⁴ Article 2, paragraphs 10, 11 and 12 of Basel Convention.

²⁵ See Hackett, David P. "Assessment of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal." (1989) 5 Am. UJ Int'l L. & Pol'y, 291, 298.

²⁶ Kummer, Katharina. "The international regulation of transboundary traffic in hazardous wastes: The 1989 Basel Convention." (1992) 41 ICLQ 03, 530, 551

²⁷ The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009.

framework of concerns arising from the carriage of hazardous substances on board a vessel that can involve liability, there will certainly be more references to numerous terms connected with the notion of "hazard" or "danger" as the discussion discloses.

(2.3) SOLAS

The International Convention for Safety of Life at Sea (SOLAS) was introduced in 1914 to respond to the Titanic Disaster. This Convention has amended in 1974 and is the most crucial treaty which deals with safety at sea. This Convention stipulates minimum standards for the construction, equipment and operation of ships for its protection. This Convention applies only to the vessels engaged in international voyages. The SOLAS 1960, which came into effect in 1965, introduced chapter vii to deal with the carriage of dangerous goods based on the report submitted by the UN Committee of Experts on the Transport of Dangerous Goods in 1956, which sets minimum standards for the transportation of dangerous goods covering all modes of transportation. The 1974 Convention replaced this 1960 SOLAS Convention, and chapter vii deals with the carriage of hazardous goods²⁸.

Part A of this chapter contains provisions for the carriage of dangerous goods in packaged form and Part A-1 with the carriage of hazardous goods in solid form in bulk. Part B includes requirements regarding the construction and equipment of ships carrying dangerous liquid chemicals in bulk and requires the compliance with IBC Code. Construction and equipment of ships transport liquefied gases in bulk, and compliance with the IGC Code are provided under Part C. Part D contains specific requirements for the carriage of packed irradiated nuclear fuel, high-level radioactive wastes and plutonium onboard ships and requires compliance with the INF Code²⁹.

There was no instruction on what set up dangerous goods, which allowed state parties to the convention to designate that and provide advice regarding preventive measures on

28

²⁹ www.imo.org The International Maritime Sangerous Goods Code <accessed on 20th march 2021>

stowage, packing, transportation mode and segregation, among other kinds of stuff. This trend resulted in uneven national and regional practices, which were deficient in uniformity. While we're on the subject, due to the international political chaos of those times, the 1914 SOLAS unsuccessful in entering into force and the practice of unilateral and regional regulation of hazardous goods carried by sea over successive years with the provisions of SOLAS 1914 persistent into its 1929 version³⁰. In Article 24 of the new version, hazardous goods were combined with "life-saving appliances" (LSA) requirements. SOLAS 1929 became internationally effective in 1933³¹.

It was pragmatic at the diplomatic conference leading up to the adoption of the 1948 version of the convention that numerous states engaged in trading in chemical cargoes had instituted regulatory measures about such trade. At the conference, it was agreed that goods' characteristics and scientific properties should define whether they are dangerous³². Materials and substances should be classed according to the nature of the danger, and they should be marked and labelled accordingly by proper symbols³³.

Therefore, in the 1948 version of the convention, revised safety standards were recognized through a novel chapter VI authorized "Carriage of Grain and Dangerous Goods," which was still recognized insufficient.

Finally, a Recommendation was implemented emphasizing the prominence of transportation of hazardous goods by sea and the need for standardization of regulation in the face of apparent lack of interest within the international maritime community

³⁰ See "Brief History of IMO"

<http://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx>;

accessed 25 September 2021; see also Kopacz, Z., W. Morgas, and J. Urbanski. "The Maritime Safety System, its Main Components and Elements." (2001) 54 *The Journal of Navigation* 02, 199, 204.

³¹ Güner-Özbek, Meltem Deniz. *Hamburg Studies on Maritime Affairs : The Carriage of Dangerous Goods by Sea*. (Berlin, Heidelberg, DE: Springer, 2007); pp50-60.

³² Henry, Cleopatra Elmira. *The Carriage of Dangerous Goods by Sea: the Role of the International Maritime Organization in International Legislation*. (Pinter, 1985), pp. 40-61.

³³ Gold, Edgar. "Legal Aspects of the Transportation of Dangerous Goods at Sea." (1986) 10 *Marine Policy* 3, 185, 191.

attributed to the relatively meagre quantities of dangerous goods being dispatched by the sea at the time³⁴.

In 1956, a report circulated by the United Nations Committee of Experts on the Transport of Dangerous Goods (CETDG) recite minimum standards for the transportation of dangerous goods, comprising all transportation modes based on recommendations, was created as a legal, regulatory framework targeted at global uniformity³⁵. The 1960 SOLAS, which became in effect in 1965, ratified chapter VI; the purpose was to deal exclusively with the carriage of dangerous goods by sea. The current 1974 version of SOLAS replaced this convention. It covers a comprehensive chapter VII covering packaged and bulk dangerous goods applicable to all SOLAS ships also cargo ships under 500 gross tonnage³⁶.

(2.4) MARPOL

The International Convention for the Pollution from Ships (MARPOL)³⁷ is one of the essential conventions which covers the prevention of marine pollution caused due to the accident that occurred and operational discharge of the ships. This Convention was adopted in 1973, and the 1978 protocol was made to respond to the tanker accidents in 1976-77. The 1978 protocol absorbed the parent convention as the 1973 Protocol hadn't come into force yet. This contains v Annexes. Each annexes contains regulations that form the technical law of this Convention and deals with different pollutants³⁸. In 1997, a

³⁴ Güner-Özbek, Meltem Deniz. *Hamburg Studies on Maritime Affairs : The Carriage of Dangerous Goods by Sea*. (Berlin, Heidelberg, DE: Springer, 2007); pp50-60.

³⁵ *Ibid*, pp. 50-62.

³⁶ See "Brief History of IMO"

<http://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx>;

accessed 25 September 2021; see also Kopacz, Z., W. Morgas, and J. Urbanski. "The Maritime Safety

System, its Main Components and Elements." (2001) 54 *The Journal of Navigation* 02, 199, 204.

³⁷ Ecotoxicology and Environmental Safety.

<http://www.inct-ta.furg.br/english/producao/512009.pdf> <accessed on 20th march 2021>

³⁸ . <http://www.imo.org> <accessed on 20th march 2021>

protocol was added to amend the Convention and said Annex VI, which came into force in 2005.

Annexe I contains the regulations for the prevention of pollution by oil. Annexure-II includes rules for the control of pollution by noxious liquid substances in bulk. Prevention of pollution by harmful substances in bulk is dealt with under annexe III, and prevention of pollution by sewage from ships is dealt with under Annexure-IV. Annex V covers the prevention of pollution by garbage by ships, and annexe VI covers the prevention of air pollution from ships.

All these annexes are essential to prevent marine pollution, but Annex III has gotten more attention because it prevents pollution caused by harmful substances. Harmful substances are those substances specifically mentioned as marine pollutants under IMDG Code. This Annexure provides requirements for packaging, marketing, labelling, documentation, stowage, quantity limitations, exceptions and notifications for preventing pollution by harmful substances.

While all the Annexes are equally significant from the point of view of control and prevention of ship-source pollution, it is notable that Annex III significances to control harmful substances in packaged form carried by vessels³⁹. Here, the usage of the term "harmful" is significant given the previous discussion in this chapter regarding terminology. In this Annex, the primary concern is marine pollution caused by harmful substances carried in packaged form, as in the other Annexes. The requirements pertain to such chemicals, basically transported as cargo in containers, portable tanks, and tank wagons by rail or on-road as part of a multi-modal transport operation⁴⁰.

Under this Annex, polluting substances in the packaged form need to be identified to facilitate safe and proper packing and stowage on vessels to avoid, prevent or mitigate pollution resulting from accidents or otherwise and the ensuing damage⁴¹,
Importantly notable in this respect is the provision which permits jettisoning of

³⁹ See Annex III of MARPOL Convention; see also Becker, Rebecca. "MARPOL 73/78: An Overview in International Environmental Enforcement." (1997) *Geo. Int'l Env'tl. L. Rev.* 10, 625, 625-630.

⁴⁰ *Ibid*, see Annex III of MARPOL Convention

⁴¹ Becker, Rebecca. "MARPOL 73/78: An Overview in International Environmental Enforcement." (1997) *Geo. Int'l Env'tl. L. Rev.* 10, 625, 625-630;

harmful substances in situations where it may be compulsory to secure the ship's safety or save human life at sea, even though such act would if not be prohibited⁴². The Annex is interconnected to the IMDG Code in terms of the definition of "harmful substances", being marine pollutants that harks back to the interrelationship between safety and pollution or between what is hazardous from a safety point of view and what is environmentally harmful⁴³.

2.4 The UN Recommendations on the Transport of Dangerous Goods

Reference has already been made while discussing SOLAS. After the second war, an increased pace in the world resulted in the carriage of dangerous goods in nature. It includes explosives, radioactive materials acids, petroleum etc. ECOSOC found that there was a lack of the uniformity of law applied to the carriage of dangerous goods. In order to prevent the loss to life or property, ECOSOC made the first version of recommendations on the transport of dangerous goods in 1956. The proposal split into two parts from 1996, one is Modal Regulations, and the other is Manual of Tests and Criteria. While the former form suggested drafting for laws and regulations of transport of dangerous goods, the latter contains information about testing methods to identify whether the products are hazardous. This recommendation is not mandatory or legally binding on individual countries, but it has been widely accepted internationally. All modes of transport of dangerous goods except by bulk tanker have covered under this recommendation. The dangerous goods may be pure chemical substances, mixtures or manufactured articles. Manufacture, use or disposal of hazardous goods are not covered under this UN Recommendation.

The Recommendations served as the blueprint for developing uniform model regulations usable by concerned public authorities facilitating the safe and efficient movement of dangerous goods by any mode of transportation⁴⁴. The

⁴² Peet, Gerard. "MARPOL Convention: Implementation and Effectiveness, " (1992) 7 The Int'l J.

Estuarine & Coastal L., 280.

⁴³ *Ibid.*

⁴⁴ UN, *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria* , (New York and Geneva, 6th Revised edn UN. 2015)

"model" provides a flexible regulatory framework for domestic as well as international use, its only restriction being that it does not cover hazardous goods carried in bulk. The Recommendations have gained universal recognition since their publication, predominantly by the IMO, which, as mentioned earlier, accepted them as the basis for the Dangerous Goods Regulations under SOLAS⁴⁵.

Recently, the Recommendations have attained the status of model rules or model regulations, its ideologies being appropriated into use by national and regional public authorities and entities. This goes a long way towards promoting universal harmonization of the regulatory regime of carriage of dangerous goods, including carriage by sea⁴⁶. Notably, even though the Recommendations are non-mandatory, that is, of *para droit* character, the drafting manner and style makes them conducive to incorporation as mandatory instruments in the domestic legislative domain. Notably, revisions of the Recommendations are an ongoing process that makes them readily adaptable to domestic legislative use⁴⁷.

(2.6) Concluding remarks.

This chapter discussed the principle regulatory instruments starting IMDG and discussed SOLAS, MARPOL Convention. UN Recommendations on Transport of Dangerous Goods has discussed the following SOLAS. It is understood that in the carriage of dangerous goods, the safety of lives and environmental protection should be given the highest priority. In contrast, law-making and control and regulation of the carriage of hazardous goods take precedence over preventive measures. Civil liabilities on the carriage of dangerous goods will be discussed in the next chapter.

<http://dx.doi.org/10.18356/c2b83494-en> accessed 25th September 2021.

⁴⁵ *Ibid*, pp.80-87.

⁴⁶ UN, *Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria*, (New York and Geneva, 6th Revised edn. UN. 2015)
<http://dx.doi.org/10.18356/c2b83494-en> accessed 25th September 2021.

⁴⁷ Güner-Özbek, Meltem Deniz. *Hamburg Studies on Maritime Affairs : The Carriage of Dangerous Goods by Sea*. (Berlin, Heidelberg, DE: Springer, 2007); pp80-87.

Chapter – 3

Civil Liability In Respect of Carriage of Dangerous Goods by Sea.

(3.1) General principles.

(3.2) Liability in Tort: - Fault-based, strict, and absolute.

(3.2.1) Fault-based liability.

(3.2.2) strict liability.

(3.2.3) Absolute liability.

(3.3) Liabilities in Contract.

(3.4) Remedies in Contract and Tort.

(3.4.1) Damages and Damage in general.

(3.4.2) damage on the Marine Environment.

(3.5) the carrier-shipper relationship: - mutual obligation and liabilities.

(3.6) Remedies under convention law.

(3.7) Concluding Remarks.

(3.1) General principles.

Most of the disputes arising from the dangerous goods on the ship are related to contract. The parties to the conflicts could be shipowner, charterer, shipper etc. Contractual instruments govern the responsibilities and liabilities of the parties. The party suffered the damage from the dangerous goods on the ship claim breach of the respective contract, and remedies will be sought⁴⁸. For example, the shipowner may claim against the shipper, alleging that damage was caused by the dangerous goods. A claim may bring under tort law, and remedies available under the tort law will also be sought.

(3.2) Liability in Tort: - Fault-based, strict, and absolute.

(3.2.1) Fault-based liability.

The tort is a civil wrong, and the defendant's liability is based on proof of harm. The quality of the conduct makes an action or omission wrongful in the eye of the law, and the law provides sanction in the form of remedy.

There are varieties of fault in tort such as negligence, trespass, assault, battery etc. Negligence is the most noticeable fault in tort. A person claiming remedy under tort law carries the liability to prove the burden. That is, he should confirm that the defendant's negligence resulted in an injury or damage or loss and must satisfy the ingredients set out

⁴⁸ Wilson John F, Carriage of Goods by Sea.

in the famous case *Donoghue v. Stevenson*. In the case of *The Wagon Mound I and II*, foreseeability is also a necessary ingredient of the law of negligence⁴⁹.

In maritime law, collision liability, personal injury and pollution liability are the areas that constitute naval torts. Collision liability and personal injury are fault-based torts where pollution liability is fault-based if no convention and domestic law are applicable. When convention law applies, pollution liability is strict, not fault-based. The pollution liability will be fault-based unless the domestic law provides for strict liability⁵⁰. In the case *Southport Corporation v. Esso Petroleum Co.Ltd*, it was held that the ship source pollution, which is not covered under any convention, is a fault-based tort⁵¹. The shipowner can limit his liability within the perimeters provided by the Convention or domestic laws.

(3.2.2) Strict Liability.

Strict liability means liability without fault. That means the plaintiff need not prove the negligence on the part of the defendant, and he should prove that the act or omission committed by the defendant resulted in damage, loss or injury suffered by the plaintiff. Civil liability in convention law related to shipping source pollution is strict. The concept of strict liability was presented in the Civil Liability Convention, 1969, due to the Torrey Canyon Disaster in 1967⁵².

In *Ryland v. Fletcher*, strict liability was established⁵³. According to this case, if the defendant were involved in the extra-hazardous activity and caused damage to the plaintiff, it would be too demanding for the plaintiff to prove the defendant's fault. The

⁴⁹ [1961] AC 388 and [1966] 1 Ll.L.R. 657

⁵⁰ . For example, under the Oil Pollution Act, 1990 of the United States.

⁵¹ [1954] Q.B. 182; (CA)

⁵² Wood, Lance D. "Integrated International and Domestic Approach to Civil Liability for Vessel-Source Oil Pollution" 1975 J. Mar. L. & Com. 7, 1, 5

⁵³ (1868). L.R.3 H.L. 330

principle of strict liability was also relevant in an interstate arbitration case between the U.S. and Canada involving air pollution⁵⁴.

In the first instance, the ship source pollution liability is the liability of the shipowner. It was debated at the diplomatic conference in 1969 whether the cargo owning community, namely, the oil industry, bear responsibility for causing pollution and argued cargo holding assembly bear some responsibility along with the shipowner for causing pollution. It headed to the adoption of the International Oil Pollution Compensation Fund Convention in 1971 and 1992, which this Convention revised. HNS and Bunkers Convention were adopted, and all these conventions provide for strict liability⁵⁵.

How does strict liability address safety?

If a shipper knows he will be held strictly liable for his carrying of dangerous cargoes, he will exercise a high degree of care⁵⁶. The shipper is in the greatest position to protect people from dangerous goods because he can conduct tests and ascertain the true character of the shipped goods before despatch. In contrast, the carrier could not reasonably be expected to do so for every type of cargo he carries⁵⁷. Particularly in terms of containerised goods, should a carrier have to open every stuffed container to see what is in them before he departs or tests every cargo to find out their properties? Of course, he should not, as that would be inefficient.

Furthermore, even if the carrier did open every container, how would he be expected to know whether a substance is dangerous? A carrier should trust that the shipper will not load dangerous cargoes onto the ship without informing the carrier. At least when he has a warning, the carrier can decide whether or not to take the risk. The issue rarely arises in

⁵⁴ *Trail Smelter Arbitration*, Arbitral, T3 U.N. Rep. Int'l Arb Awards 1905 (1941); See *supra* note 2, p.27

⁵⁵ . Kiss, Alexandre, and Dinah Shelton. "Strict liability in International Environmental Law." *Law of the Sea, Environmental Law and Settlement of Disputes*. (Brill, 2007). 1131-1152.

⁵⁶ Vandall, *Strict Liability* (1989), 21; Verro/Vernon, *The Boundaries of Strict Liability in European Tort Law* (2004), 8.

⁵⁷ *In re M/V "DG Harmony"*, No: 98 Civ.8394 (DC), 2005 U.S. Dist. Lexis 23874:

18 October 2005.

bulk cargo because bulk cargo properties are generally well known in the trade. The carrier, master or agent can see and is supposed to know what is known about a particular cargo. However, the carrier or master should be informed about the specific state of the bulk cargo, e.g. moisture content, temperature, etc. In that case, the strict liability of the shipper

for an unknown danger of a bulk cargo would arise if such a danger were unknown by the scientific world⁵⁸. As the cases deciding for strict liability expressly mention, the strict liability of the shipper occurs when the shipper has not informed the carrier, master or agent of the dangerous nature and properties of the goods. In other words, if the shipper has given the required notice to make the carrier or master aware of the goods' particulars or if the carrier, master or agent knew the dangerous nature of the goods, strict liability does not become an issue. Yet, that is not to say that the shipper is not liable once he notices danger.

(3.2.3) Absolute liability.

The Convention on the Liability of Operators Nuclear Ships provides absolute liability on nuclear ship owners for causing nuclear damage by ship⁵⁹.

Article 1 Paragraph 1 of this Convention says that:

The operator of an atomic ship shall be responsible for any nuclear damage upon proof that such damage has been affected by a nuclear incident involving the nuclear fuel of, or radioactive products or waste produced in, such ship.

Article 1 Paragraph 7 defines nuclear damage as – loss of life or harm to property which arises out of or effects from the radioactive properties or combination of radioactive properties with toxic, explosive or the other dangerous properties of nuclear fuel or radioactive products or waste, any other loss, harm or expenses so arising or consequential shall be included only if and to the degree that the applicable national law so provides.

⁵⁸ *Sucrest Corp. v. M.V. Jennifer* 455 F.Supp. 371 (Maine N.D).

⁵⁹ . Konz, Peider. "The 1962 Brussels Convention ." (1963)

Article 1 Paragraph 8 of this Convention defines nuclear incident. It means any occurrence or series of circumstances having the exact origin causes nuclear damage⁶⁰. Even though these provisions provide for the absolute liability, it does not mention an absolute liability. Civil Liability in the Field of Maritime Carriage of Nuclear Materials Convention was adopted in 1971, which deals with nuclear installation operator's liability and provides for dismissal of liability where any other convention governs the liability⁶¹. This Convention does not mention absolute liability.

The 1962 convention has not mentioned the carriage of nuclear material carried as cargo. So in case of anticipation of the worst scenario, absolute liability would be applied. The significant difference between strict liability and absolute liability is that defences are available to the shipowner in burdensome liability, but no defences are available in absolute liability.

(3.3) Liabilities in Contract.

Contractual liabilities arise in varied ways like misrepresentations, breach of contracts etc. breach of contract is more often. These all are fault-based liabilities. The non-performance of the contract is the breach of contract amounting to repudiating the contract. If the party does not perform the contract because of extenuating circumstances, the party will not be liable. But if the breach is a self-induced one, then the party will be responsible⁶².

(3.4) Remedies in Contract and Tort

The term remedy refers to the sanction in private law⁶³. There are varieties of remedies available both in contract and tort law. In contract law, there is compensation and also

⁶⁰ See Article 1 of Convention on Liability of Operators of Nuclear Ships.

⁶¹ Faure, Michael G., and Göran Skogh. "A Convention as insurance." Geneva Papers on Risk and Insurance. Issues and Practice (1992): 499-513.

⁶². Hirji Mulji v. Cheong Yue SS. Co.; Bank Line Ltd. v. Capel and Co.; Ocean Tramp Tankers Corp. v. V/O Sovfracht

⁶³ Harris, Donald, David Campbell and Roger Halson. Remedies in Contract and Tort (Cambridge university), 23-67

non – monetary forms of remedies such as recession and specific performance of the contract. Are available. In tort law, there are damages. The remedy will depend upon the extent of the wrongful act or omission committed by the dependent. The remedy puts the successful plaintiff in a position where he would have been in the illegal act or omission had not been committed by the defendant⁶⁴.

Acts such as death or personal injury resulting in the carriage of dangerous goods can be both tortious and criminal offences⁶⁵. The pollution also affects human beings, such as damage to property and financial deprivation, which is also a maritime tort. Pollution, irrespective of its nature, involves the marine environment.

(3.4.1) Damages and Damage in general.

Damage means loss, harm and injury, whereas damages mean the remedy. In common law jurisdictions, the term damages are used, and in civil law jurisdictions and an international convention, the term compensation is used. These are the remedies available in both contract and tort law.

(3.4.2) damage on the Marine Environment.

There are environmental harm, damage to the environment and ecological damage concerning the environment. The CLC and Fund Convention does not define ecological harm. But Article 1(d) of the International Convention on Salvage, 1989 describes damage to the environment as "substantial physical injury to physical health or marine life or resources in coastal or inland waters or areas adjacent to that, caused by pollution, contamination, fire, explosion or similar major incidents".

(3.5) The carrier-shipper relationship: - mutual obligation and liabilities.

The contract establishes the carrier-shipper relationship. Bill of lading and transport of document is the evidence of the agreement. The international carriage of goods

⁶⁴ ibid

⁶⁵ Ames, James Barr, Harvard Law Review 18.6 (1905): 411-422

convention governs the contract in which the shipper is a party to the contract. This Convention does not apply to the agreement where the charter party is involved⁶⁶.

Article IV (6) of Hague-Visby Rules provides that "Goods of a flammable, explosive or dangerous nature to the shipment of which the carrier, master or agent of the carrier, has not given consent, with knowledge of their nature, may at any time before discharge be landed at any place or damaged or rendered harmless by the carrier without compensation, and the shipper of such goods shall be responsible for all damages and expenses directly or indirectly arising out of or resulting from such shipment. Suppose any goods shipped with such knowledge and consent shall become a danger to the ship or cargo. In that case, they may in like manner be landed at any place or damaged or rendered innocuous by the carrier without responsibility on the part of the carrier except to general average if any⁶⁷".

Paragraph 1 of Article 13(2) provides that "The shipper must mark or label suitably hazardous goods as dangerous. Where the shipper entrust dangerous goods to the carrier or an actual carrier, as the case may be, the shipper must notify him of the dangerous character of the goods and, if necessary, of the precaution to be taken....⁶⁸ "

Article 32 of the Rotterdam Rules provides special rules on dangerous goods, as follows: When goods by their character or nature are, or judiciously appear likely to become, a threat to persons, property or the environment:

- a) The shipper shall promptly inform the carrier of the dangerous nature or character of the goods before they are delivered to the carrier or a performing party. If the shipper be unsuccessful in doing so and the carrier or performing party does not else know their dangerous nature or character, the shipper is answerable to the carrier for loss or damage subsequent from such failure to notify; and
- b) The shipper shall mark or label dangerous goods following any law, regulations or other requisite of public authorities that apply for the duration of any phase of the

⁶⁶ Baatz, Yvonne, et al. *The Rotterdam Rules: a practical annotation*. CRC Press, 2013.

⁶⁷ Article IV of the Hague-Visby Rules.

⁶⁸ . Article 13 of Hamburg Rules.

planned carriage of the goods. If the shipper is unsuccessful, it is accountable to the carrier for loss or harm resulting from such failure⁶⁹.

(3.6) Remedies under convention law.

In Rotterdam Rules, there are no provisions for the remedies. But Article 22 provides the calculation of damages payable by the carrier for causing harm, loss or delay of the cargo⁷⁰.

In Hague-Visby Rules, there are no provisions for the remedies. Still, Article IV Paragraph 5(b) and Article IV Paragraph 3 calculate compensation of the value of goods at the place and time of discharge according to the respective contract⁷¹.

The Hamburg Rules also do not expressly provide the remedies, but it is implied from the limitations imposed under Article 6. These limitations apply to actual carriers and their servants and agencies under Article 10 Paragraph 5⁷².

Hague-Visby Rules

The provision confined in Article IV rule 6 and stated as follows: Goods of a flammable, explosive or dangerous nature to the shipments of which the carrier, master or agent of the carrier, has not consented, with the understanding of their nature, may at any time before release be landed at any place or wrecked or rendered harmless by the carrier without compensation, and the shipper of such cargo shall be legally responsible for all

⁶⁹ Article 32 of the Rotterdam Rules.

⁷⁰ Article 22 of the Rotterdam Rules.

⁷¹ Article IV of the Hague-Visby Rules.

⁷² . Article 6 and Article 10 of the Hamburg Rules.

damages and expenses indirectly or directly consequential from or arising out of such consignment.

Suppose any such goods shipped with such understanding and consent shall become a threat to the vessel or cargo. In that case, they may in like way be landed at any place or wrecked or rendered innocent by the carrier without liability on the part of the carrier except to general average, if any⁷³.

A study of the above provision, self-governing of how it relates with Article 32 of the Rotterdam Rules, hints to the first observation that three adjectives are used to refer to the characteristics of the cargo covered by that Rule, namely, flammable, explosive, or dangerous. The second element mentions the condition where the carrier or its agent or the master of the vessel has not given consent to its shipment. Thirdly, the lack of support is combined with the understanding of the said carrier, agent or master, of the characteristics of the cargo. When all these circumstances are met, the carrier, agent or master may do several things before discharge the goods. They can cause the cargo to be landed at any place or destroy them or render them harmless, and for carrying out any such act, the carrier will not be liable to pay any compensation. Rather, the shipper is responsible for paying damages, including any expense incurred directly or indirectly due to such action⁷⁴.

The second constituent of the Rule in the Hague-Visby Rules is portrayed in a separate paragraph. It provides that in the situations referred to in the first component, if the goods become a risk to the vessel or cargo, they may be subjected to the same actions as cited in the first component of the Rule; except that the carrier will be legally responsible for any average general contribution.

The two paragraphs noted above cover two particularly different circumstances. The first deals with the circumstances where the carrier, its agent, or master is aware of the nature of the cargo but has not consented to their consignment. In those conditions, the carrier may land or extinguish the cargo or render them harmless without paying any compensation; it can also extract damages and expenses associated with the shipment from the shipper. The carrier's right of recovery is irrespective of whether the damages and costs have arisen directly or indirectly due to the load. The legal importance of this

⁷³ Article IV rule 6 of Hague/ Visby Rules

⁷⁴ *Ibid.*

provision is that recovery entitlement is not contingent upon any particular causative factor in tort law⁷⁵. It is sufficient that the consignment of goods in question was the cause regardless of whether direct or indirect.

In the case *The Fiona*⁷⁶, the issue was the importance of the carrier's responsibility for breach of its duty to exercise due carefulness to make the vessel seaworthy and its privilege to remove indemnity from the shipper under Article IV rule 6 in association with the shipment of dangerous goods.

The second component of this Rule deals with the circumstances where even if the carrier was aware of the characteristics of the goods and had consented to its consignment, it finds out later that the goods have become a danger to the ship or other cargo on board⁷⁷. The carrier, in such illustration, is entitled to deal with the cargo in the same manner as provided in the first constituent of the Rule⁷⁸. As mentioned above, and the exemption is that in the event of any general average, the carrier will be responsible for contribution even though it will not be legally responsible to the shipper for any action it may take in conformity with the paragraph in question.

Before finalising the discussion on Article IV paragraph 6, it may be specified in summary that the first constituent of the Rule deals with cargo that is flammable, explosive or hazardous at the time of shipment and the second constituent deals with cargo bearing the same characteristics becoming a danger to ship and cargo.

One item of importance remains to be addressed; that is the issue of the expression "dangerous, explosive or inflammable" in the context of shippers' obligations under Article IV rule 6. An elaboration of this is warranted in comparing Article IV rule 6 of the Hague-Visby Rules with Article 32 of the Rotterdam Rules.

At this stage, a most striking observation by way of comparison between the

⁷⁵ *Ibid*, p.35

⁷⁶ [1994] 2 Lloyd's Rep. 506.

⁷⁷ Article IV rule 6 of Hague/ Visby Rules, see also *supra* note 186, 5-6; See also Thomas, D. Rhidian.

"Special Liability Regimes Under The International Conventions for The Carriage Of Goods by Sea Dangerous Cargo and Deck Cargo." *Nederlands Tijdschrift Voor Handelsrecht* 5 (2010): 198,199.

⁷⁸ Article IV rule 6 of Hague/ Visby Rules, see also *ibid* Thomas, D. Rhidian. 198,198-199.

Hague-Visby Rules and the Rotterdam Rules regarding the carriage of dangerous goods is that the Hague-Visby Rules contain no provisions relating to shipper responsibility. The Hague-Visby Rules deals basically only with carrier obligations⁷⁹.

The carrier's rights to dispose of cargo of a hazardous nature where there was no consent or understanding of the dangerous character of the goods do not attract the carrier's liability to pay compensation to the shipper. Certainly, the shipper is liable for all the damages and expenses arising out of or resulting from such shipment. Still, there is no express statement on whether the damages and costs referred to are those sustained by the carrier. Though there would appear to be an implied responsibility on the shipper to notify the carrier of the hazardous characteristics of the cargo, and the carrier must agree to their shipment⁸⁰.

By contrast, in paragraph (a) of Article 32 of the Rotterdam Rules, the shipper has a positive responsibility to inform the carrier of the dangerous nature of the goods⁸¹; in rule 6 of Article IV of the Hague-Visby Rules, there is no such positive responsibility. Relatively, the provision commands what the carrier may do if he is aware of the cargo's characteristics and has consented to its consignment.⁸²

This is quite an important dissimilarity between these two rules. In Article 32, provision is made for the carrier's possibility of acquiring the understanding in question even if the shipper has not notified the carrier.

In rule 6 of Article IV of the Hague-Visby Rules, there is a precise rule concerning what the carrier is authorised to do where the carrier has no knowledge at all and has given no consensus to the consignment, and makes the shipper legally responsible for damages and expenses arising out of such consignment. In contrast, Article 32 of the Rotterdam Rules

⁷⁹ See *supra* note 173, pp.194-196

⁸⁰ See Article IV.r 6 of HV Rules.

⁸¹ See Article 32 of the Rotterdam Rules;

168, 5-6; See also J. Wilson, *Carriage of Goods by Sea*, 7th Edition, Essex: Pearson, 2010, pp . 234-235

⁸² Article IV, r 6 of the Hague-Visby Rules

only provides for liability on the shipper for not providing timely information regarding the dangerous nature of the goods⁸³.

Furthermore, Article 32 provides another positive obligation on the shipper to mark or label hazardous cargo. There is no corresponding provision like this under rule 6 of Article IV and thus no such responsibility; instead, the carrier under that Rule is given a right to deal with the subject goods in an agreed manner even if the goods become a danger to the ship or the cargo⁸⁴.

It is apparent from the above observation that the two rules are fundamentally different in scope and character. Indeed, there is no facade of one in the other.

In Article 32, the shipper only has the duty to inform and provide accurate marking and labelling. In rule 6, the shipper has no definite duties, and the carrier has positive rights. Finally, the substantial dissimilarity between the two rules pivots on the exclusive use of the term "hazardous" in Article 32, which raises the question of the definition of that term. In the opinion of this writer, the most positive and useful way to define "dangerous" is by reference to international regulatory instruments and national legislation dealing with the issue of dangerous goods. As mentioned earlier, the IMDG Code is undeniably the best source for a definition.

Hamburg Rules

In the perspective of this discussion, it is conspicuous that previous to the Rotterdam Rules; the Hamburg Rules already contained provisions on shipper responsibility and

⁸³See Article 32 of the Rotterdam Rules; see also Thomas, D. Rhidian. "Special Liability Regimes

under the International Conventions for the Carriage of Goods by Sea-Dangerous Cargo and Deck Cargo." *Nederlands Tijdschrift voor Handelsrecht* 5 (2010): 198 *Nederlands Tijdschrift voor*

Handelsrecht 5 (2010): 198. See also *supra* note 186; See also *supra* note 180, J. Wilson, 234-235

⁸⁴*Ibid*; see also Berlingieri, Francesco. "A Comparative Analysis of the Hague-Visby rules, the

Hamburg Rules and the Rotterdam rules." Paper delivered at the General Assembly of the AMD,

Marrakesh (2009): 5-6;

liability. There are two obligations to be found in paragraphs 1 and 2 of Article 13, which accepts the caption "Special Rules on Dangerous Goods."

They read as follows:

The shipper must mark or label suitably dangerous goods as dangerous.

Where the shipper hands over hazardous goods to an actual carrier or the carrier, as the case may be, the shipper must let know him of the hazardous character of the goods and, if necessary, of the precaution to be taken⁸⁵

It is clear from the above provisions that there is no need to imply or assume any obligation on the shipper's part to provide such information as in the case of Article IV, paragraph 6 of the Hague-Visby Rules. As mentioned before, in article 32 of the Rotterdam Rules, which also bears the caption "Special Rules on Dangerous Goods",⁸⁶ there is a similar express obligation imposed on the shipper to inform the carrier about the hazardous nature of the cargo, parallel to Article 13 paragraph 2 of Hamburg Rules. Article 13 of the Hamburg Rules also contains in paragraph 2(a) a statement regarding shipper's liability which reads as follows:

If the shipper be unsuccessful in doing so and such actual carrier or carrier does not otherwise know their hazardous character:

(a) the shipper is legally responsible to any actual carrier or carrier for the loss resulting from the shipment of such goods⁸⁷

In the Rotterdam Rules, an almost same provision appears in Article 32 (a), which provides that "...the shipper is responsible to the carrier for damage or loss resulting from such failure to inform". The above-noted provision in the Hamburg Rules are similar to Article IV, paragraph 6 of the Hague-Visby Rules, which provides for liability of the shipper for all expenses and damages resulting from the shipment of dangerous goods without the knowledge or consent of the carrier but without any mention to whether it is the carrier in respect of whom the liability applies⁸⁸. In the Rotterdam Rules, there is an express responsibility provision in Article 32(b) concerning the shipper's failure to mark or label the dangerous goods following government

⁸⁵ Article 13 of Hamburg Rules

⁸⁶ Article 32 of the Rotterdam Rules

⁸⁷ Article 13 of the Hamburg Rules.

⁸⁸ J. Wilson, *Carriage of Goods by Sea*, 7thed (Pearson, 2010) , 224

necessities. The Hamburg Rules has no such provision, and also, the labelling and marketing obligation is not tied to government conditions but rather left open to the shipper to do it "in a suitable manner."

Notably, there is no express stipulation regarding the marking or labelling dangerous goods in The Hague-Visby Rules.

The next topic to note in this comparative analysis is the issue of the carrier's rights in the occasion of the shipper's failure to act in accordance with its responsibilities discussed above.

Article 13, paragraph 2(b) of the Hamburg Rules provides that- contain an express statement regarding the dangerous character of the goods⁸⁹.

Rotterdam Rules: Background Evolution and Salient Features

The international carriage of cargo by sea has been directed by convention law for almost one hundred years, starting with the acceptance of the Hague Rules in 1924⁹⁰, which was encouraged by the legislation of Canada, New Zealand and Australia and the U.S. Harter Act of 1893. It was measured to be a landmark event that was instrumental in breaking the stranglehold of British carriers. The Visby Protocol to the Hague Rules was addressed as an important improvement on the original Hague Rules was adopted in 1968 and became known as the Hague-Visby Rules. However, these Rules denoted a favourable of shipper interests; in the post-Hague/Visby period, shipper states felt that the pendulum had not swung enough in their favour, particularly in the obligation regime. Their opinions were heard, and grievances were observed in some quarters internationally as a result of which the Hamburg Rules were adopted in 1978⁹¹ under the supports of the United Nations Commission on International Trade Law (UNCITRAL) with main input from the United Nations Conference on Trade and Development (UNCTAD) widely considered as a champion of the third world (developing countries)⁹². Even though the

⁸⁹ The International Convention for the Unification of Certain Rules Relating to Bills of Lading, 1924,

120 U.N.T.S. 155

⁹⁰ United Nations Convention on the Carriage of Goods by Sea, 17 I.L.M. 608

⁹¹ Moore, John C. "Hamburg Rules" J. Mar. L. & Com. 10 (1978): 1.

⁹²ibid

Hamburg Rules eventually entered into force in 1992 after a lengthy interval since its adoption, the Convention did not achieve much support universally.

In the late 1990s, going into the next era, the CMI embarked on a fairly ambitious programme intended to major reform the law relating to the international carriage of goods. It was a combined effort of CMI and UNCITRAL which got the project underway and was sooner or later placed in the hands of Working Group III (Transport Law) of UNCITRAL. The aim of deliberators consist of national delegations at CMI and UNCITRAL was to draw into the bend of convention law through the reform mechanism the matter of multimodal transportation⁹³. Hence the term "transport law" and not carriage of goods by sea occurred as the terminological norm, which was successively changed to the descriptive expression "carriage wholly or partly by sea"⁹⁴.

The creation of conventions had led to the parallel existence of three sets of international Rules, which was inconsistent with creating worldwide uniformity and universality of application of carriage law. On top of t were the so-called "hybrid" national regimes with legislation containing combinations of different aspects of different conventions⁹⁵. A good instance is China, which has a Maritime Code incorporating the Hague/Visby components and the Hamburg Rules as the world's second-biggest trading nation. The UNCITRAL initiative, in due course, culminated in the adoption in 2008 of the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea. The formal signing procedure was held in Rotterdam in September 2009, and the Convention has thus come to be recognized as the Rotterdam Rules⁹⁶.

⁹³ Karan, Hakan. "Any Need for a New International Instrument on the Carriage of Goods by Sea:

The Rotterdam Rules." J. Mar. L. & Com. 42 (2011), 441,443

⁹⁴ https://www.uncitral.org/pdf/english/yearbooks/yb-2008-e/11-86490_ebook_2008_e.pdf, accessed 25

September 2021.

⁹⁵ Bal, Abhinayan Basu. "An Evaluation of the United Nations Convention on Contracts for the

International Carriage of Goods Wholly or Partly by Sea (Rotterdam Rules) through Critical Analysis."

(WMU Publications, 2009) at pp. 5-8.

⁹⁶ Abhinayan Basu Bal, 'An Evaluation of the United Nations Convention on Contracts for the

Significant Salient Features

The Rotterdam Rules functions at once as the basis and the framework for liability issues about the carriage of hazardous goods under a newly envisaged regime. The major thrust is consideration of the liability regime for carriage of unsafe goods under the Rules.

Against the above backdrop and given the complications of interrelationships among the parties involved in global shipping, it would not be uncommon to view all the provisions of the Rotterdam Rules as being relevant in one way or another. Still, a selective choice of features is needed to focus on the central theme; thus, only those provisions are highlighted for discussion.

Only hardly any provisions of the Convention, namely Articles 15, 27, 30 and 32 in Chapter 7, deal with the shipper's obligations and cross-reference the whole of that chapter; in particular, Articles 31 and 34 are directly significant to the carriage of dangerous goods on board.

Examination of Articles 15, 27, 30 and 32 of Rotterdam Rules

Article 32

The provisions concerning hazardous goods under the Rotterdam Rules are in Articles 15, 27, 30 and 32. In speaking this, one must begin with an analysis of Article 32 in Chapter 7. This Chapter endures the caption "Obligation of the shipper to the carrier". In turn, the heading of Article 32s is "Special rules on hazardous goods". Therefore, it is understandable that the responsibility regime regarding the carriage of dangerous goods by sea is a special regime, quite unlike the carriage of goods by the sea that is not hazardous⁹⁷.

International Carriage of Goods Wholly or Partly by Sea (Rotterdam Rules) through Critical Analysis'

(WMU Publications 2009) at pp. 5-13

⁹⁷ Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.91 and 92

The liability regime for such goods is based primarily on the shipper's responsibilities under the Convention. Notably, Article 32 is the principal substantive provision in the Convention that deals with hazardous cargo. It provides as follows:

When cargo by their nature or character is, or judiciously appear likely to become, a threat to the property, person or the environment:

- a) The shipper shall promptly advise the carrier of the dangerous nature or character of the goods before they are delivered to a performing party or the carrier. If the shipper be unsuccessful in doing so and performing party or the carrier does not then have an awareness of their dangerous nature or character, the shipper is legally responsible to the carrier for loss or damage consequential from such failure to notify; and
- b) The shipper shall mark or label dangerous goods following any law, regulations or another requisite of public authorities that apply throughout any stage of the intended transportation of the goods. If the shipper is unsuccessful, it is responsible to the carrier for loss or damage resulting from such failure⁹⁸.

This provision has several elements, together with three statements of law set in paragraphs (a) and (b), which relate to duties and obligations for failure. The Chapter depicts the circumstances under which the responsibilities and the attendant liability arising from the failure operate. To comprehend the hazardous character or nature, one can look at English case law, the important contents of which spread out to several other issues relating to dangerous cargo.

One significant issue is whether "dangerous" includes or is the same as "harmful". This, in turn, raises the demand for physical versus legal harm. Apart from that, it is to be witnessed that the threat arising from the nature or character of goods is not limited to a threat to individuals but also property and the environment. As opined by some commentators, simply carrying contaminants on board a ship may well trigger an obligation and attendant liability on the shipper even if the pollutant in question is a chemical fertilizer of stable character or oil⁹⁹. This makes the process of the provision

⁹⁸ *Ibid*, at p. 92; see also Thomas, D. Rhidian. " Special Liability Regimes under the International

⁹⁹*Ibid*, at p. 92; see also Thomas, D. Rhidian. " Special Liability Regimes under the International Conventions for the Carriage Of Goods by Sea-Dangerous Cargo And Deck Cargo." Nederlands

broader in possibility. Another key feature of Article 32 is the quite fluid or open-ended concept of what may "reasonably appear likely to become a danger". In this respect, it has been pointed out that-

The proviso fails to explain to whom the goods should judiciously appear likely to become a hazard: an additional difficulty, as it is not hard to do in advance how the view of a reasonable master may vary from that of an equally affordable shipper¹⁰⁰.

Furthermore, it is said that the phrasing so formulated seems to "purposely exclude" cargo that "become hazardous, where they did not judiciously appear likely to become so"¹⁰¹. Still, in the opinion of this writer, the comment to the effect that there is a deliberate exclusion stretches the construction of the expression out of all proportion and borders on semantic hair-splitting. Yet, the formulation as it stands is a potential recipe for dispute.

The shipper's duty to inform the carrier regarding the dangerous nature or character of the goods is a positive obligation or responsibility in current carriage regimes¹⁰². Though, in Article 32 of the Rotterdam Rules, there are express requirements about the goods for providing the information "promptly before they are transported to the carrier or the performing party". The repercussion of the appropriateness of the notification by the shipper is that the failure to do so gives rise to responsibility. The practicality of this requirement is that the carrier can consider the situation in preparing for the cargo delivery and organize the relevant documentation, including the cargo manifest and stowage plan¹⁰³.

While the shipper's responsibility to inform or notify is a positive one, it would appear that there is no compulsion on him in this respect where the carrier would have otherwise known about the dangerous nature or character of the goods¹⁰⁴. It is uncertain from the provision whether to escape liability; the shipper must prove that the carrier had or should

¹⁰⁰ *Ibid*, Thomas, D. Rhidian

¹⁰¹ Fujita, Tomotaka. "Shipper's Obligations and Liabilities under the Rotterdam Rules." *University of Tokyo Journal of Law and Politics* 8 (2011): P62.

¹⁰² Nikaki, Theodora. "Carrier's Duties under the Rotterdam Rules: Better the Devil You Know, The." *Tul. Mar. LJ* 35 (2010): 1.

¹⁰³ Yvonne Baatz, et. al., *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.92 and 93

¹⁰⁴ See *The Athanasia Comninos and Georges Chr Lemos* [1990] 1 *Lloyd's Rep* 277

have been aware of the dangerous character of the goods. However, arguably, under ordinary industry practice, a prudent carrier would be expected to make the essential inquiries concerning the attributes of the cargo it has agreed to carry¹⁰⁵. It can also be guessed from the phrasing used in Article 32 paragraph (a) that a performing party is in the equivalent position as the carrier, which would include imputed knowledge concerning the hazardous nature or character of goods established on the performing party's judiciousness or sensibleness as an industry player.

The duty of shippers to mark or label dangerous goods under Article 32 paragraph (b) is considered a new obligation in sea carriage law because it carries liability for failure¹⁰⁶. Notably, the penalty in question is potentially a two-fold diversity because it is referenced to "any law, regulation or other necessities of public authorities ". In other words, the failure to mark or label can, in the first instance, attract a regulatory sanction such as a fine and also civil liability for loss or damage resulting from such failure¹⁰⁷. The regulatory law referred to would typically be the International Maritime Dangerous Goods Code (IMDG) or its domestic law counterpart¹⁰⁸. If the goods are stowed in a vessel, and the carriage is multimodal, the requisite to label or mark would apply to all modes of conveyance under Article 32 (b). In addition, any appropriate domestic or international law relating to a particular regime of unimodal transport may also apply¹⁰⁹. It is understood from Article 32 that both responsibilities are owed by the shipper or, under Article 33, the documentary shipper, to the carrier¹¹⁰. Though, as the phrasing in paragraph (a) indicates, the discharge of the shipper's obligation impinges on the performing carrier as well. There is no indication that the duties are payable to third parties or whether such parties can advantage of the failure of the shipper to discharge the duties¹¹¹. But in the lack of any express provision to that effect, it may well be that

¹⁰⁵ Fujita, Tomotaka. "Shipper's Obligations and Liabilities under the Rotterdam Rules." *University of Tokyo Journal of Law and Politics* 8 (2011): P62.

¹⁰⁶ Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.92 and 93, See also *ibid* Fujita, Tomotaka, p. 62.

¹⁰⁷ See also *ibid* Fujita, Tomotaka, p. 62.

¹⁰⁸ Article 32 (b) of HV Rules

¹⁰⁹ See Article 32 of Rotterdam Rules. Also see Zeng-jie, Z. H. U. "Evaluation on the Rotterdam Rules." *Annual of China Maritime Law* 20.1-2 (2009).12.

¹¹⁰ See also *ibid* Zeng-jie, Z. H. U.12,14

¹¹¹ See Article 32 of Rotterdam Rules

domestic tort law may put on in favour of a third party who has grieved damage or loss as a result of failure on the part of the shipper concerning the two obligations mentioned.

Article 30

Concerning Article 32, two other opinions need to be made concerning the shipper's liability. The chief is the liability nature, and the second is whether it is subject to limitation. On the first concern, there is no express statement of law in Article 32 as to whether the obligation of the shipper is strict¹¹²; in other words, whether the carrier as a claimant is obligatory to prove fault on the part of the shipper to obtain relief either in tort or in the contract. Though, there is some suggestion of strict liability in Article 30, the caption of which is "Basis of shipper's liability to the carrier". Granted that this provision applies across the board and is not specific to dangerous goods, but given that there is a cross-reference to Article 32, the application of strict liability can be extrapolated from the words used in Article 30 (2), which as follows:

Except in respect of loss or damage caused by a breach by the shipper of its obligations according to articles 31, paragraph 2, and 32, the shipper is relieved of all or part of its obligation if the cause or one of the grounds of the loss or damage are not attributable to its fault (emphasis added) or to the fault of any person mentioned in article 34.

It is common ground that where there is obligation without attribution of fault, the liability is strict where the claimant needs to prove only loss or damage¹¹³.

Based on this premise, it is open to question the liability of the shipper about loss or damage caused by hazardous goods is of the strict or "no-fault" variety. At least in the context of the Hague-Visby Rules and domestic legislation giving effect to those Rules, in some common law jurisdictions, the case law expressly provides for strict liability in cases of damage or loss attributable to a failure by the shipper to give notice or

¹¹² Epstein, Richard A. "A theory of strict liability." (1973) 2 T. Legal Stud.151, 151-204.

¹¹³ Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.92 and 93, See the cases cited on these pages. *Effort Shipping Co v Linden*

Management Co. The Giannis NK [1998] 1 Lloyd's Rep 337; *Senator Linie GmbH Co Kg V. Sunway Line Inc* 291 F3d 145; [2002] AMC1217 (2nd Circ,2002)

provide requisite marking or labelling in connection with the carriage of dangerous goods¹¹⁴. It is submitted, though, that the Rotterdam Rules are not yet in force, and its provisions are as yet sensibly untested. To what extent, if at all, decisions of common law courts rendered in the context of another convention or domestic law will effect courts in civil law jurisdictions remains ambiguous at best, especially wherein such jurisdictions the notion of "presumed fault" prevails rather than strict liability. On the view of this writer, so, any statement to the effect that the shipper's liability under the Rotterdam Rules in the conditions under discussion is strict must be viewed only in light of Article 30(2). Concerning the limitation of liability, it is notable that this right does not extend to shippers¹¹⁵. One may wonder why that is so; suffice it to say that it was a negotiated mindful decision of the architects of the Convention and the representatives at UNCITRAL for unclear reasons.

Article 15

Concerning Article 15, it must be noted that this short provision deals not with goods that were hazardous by definition when loaded on board but rather goods that may become hazardous or may "reasonably appear likely to become" hazardous during the voyage. The exact wording of this Article is depicted as follows: Notwithstanding Articles 11 and 13, the carrier or performing party may fail to receive or to load, and may take such other measure as are reasonable, including unloading, destroying, or rendering goods harmless, if the goods are, or judiciously seem likely to become during the carrier's period of responsibility, an actual danger to property or the environment¹¹⁶. The first opinion is that this provision supersedes Articles 11 and 13, both of which are different varieties of carriers' responsibilities. Article 11 deals with the duty of the carrier to carry and deliver the goods. Article 13 covers certain specific duties relating to their receipt, carriage and discharge. One particularity of Article 15 is that it has similar words to those in Article 32 concerning the

¹¹⁴ Wilson, John F. *Carriage of Goods by Sea*. (Essex, 6th edn, Pearson Education, 2008.) pp.237-238.

¹¹⁵ Article 15 of Rotterdam Rules.

¹¹⁶ Bovio, David Moran. "Ocean Carriers' Duty of Care to Cargo in Port: The Rotterdam Rules of 2009." *Fordham Int'l LJ* 32 (2008), 1162.

situation where the goods may "reasonably appear likely to become....an actual danger to persons, property or the environment". In this respect, it is to be noted that whereas in the chapeau to Article 32, the reference is to "danger", Article 15 speaks to "actual danger". Still, the provision applies during the period of accountability of the carrier, which in the case of a maritime carrier under the Rotterdam Rules will be the period normally referred to as " port to port "¹¹⁷. Aside from the above-noted observation, ambiguity and absence of clarity surrounding the words "reasonably appear likely to become " must bear the same critical comment as made by this writer in the discussion above relating to Article 32.

Apart from the above observations, it must be noted that the carrier or a performing party is permitted to take several optional measures in cases where goods are likely to become hazardous or may reasonably appear likely to become hazardous.

The major option is that the carrier or the performing party may refuse to receive the goods, the second to refuse to load and the third to take any reasonable measures which include several sub-options, namely, unloading, destroying, or rendering goods harmless.²²⁷ Article 15 has an overriding effect, any potential violation of Articles 11 and 13 resulting from any of the measures can be overcome¹¹⁸.

The privileges of the carrier and the performing party, as provided in Article 15, has the potential to lead to difficult circumstances in multimodal operations where one a performing party may reflect it's part of the conveyance chain safe but another performing party such as the one accountable for loading the goods onto the vessel or even the sea carriage segment not to be secure¹¹⁹. The right of each carrier or performing party are detachable and can be exercised separately by choosing an option suitable for its purpose¹²⁰.

It is submitted that compared with goods that reasonably appear to become dangerous, those posing an actual danger are tranquil to deal with in practical terms. Even so, there is the dilemma about whether the danger is simply physical or whether the provision would apply to what may be hazardous in legal terms. It is

¹¹⁷*Ibid.* pp 1167-1168.

¹¹⁸ Article 15 of Rotterdam Rules.

¹¹⁹ Article 15 of Rotterdam Rules.

¹²⁰ *Ibid.*

submitted that even though the expression "actual danger to property" may accommodate a wide construction, drawing in the view of "legal danger" or a legally dangerous circumstance may be stretching the construction too far¹²¹.

The expression "actual danger to environment"¹²² is equally unclear and perplexing, particularly whether it includes sea, the land, and the air about the carriage of the goods in question. There are other implications about how far the concept of the environment can be stretched to comprise the eco-system, such as flora and fauna and other biological features resident in the environs. It should also be noted that about the environment, other terms come into play, such as pollution and contamination, and questions may arise as to whether they are the same as danger or endangerment. Finally, it is notable that no obligation is attached to any failure of the carrier or performing party to exercise the options referred to in this Article¹²³.

Article 27

The shipper's obligations relating to the delivery of goods to the carrier is contained in Article 27. This Article wants the shipper to deliver the goods in a condition that will endure the carriage and many components of cargo work associated with the carriage in compliance with the contract of the carriage entered into with the carrier¹²⁴. The specifics of the shipper's responsibility in this regard are set out in Article 27 is as follows: 1. If otherwise agreed in the contract of carriage, the shipper shall convey the goods ready for carriage. On any occasion, the shipper shall provide the goods in such condition that they will hold out the intended carriage, including their loading handling, stowing, lashing and securing, and unloading, and that they will not cause harm to property or persons.

2. The shipper shall carefully and properly perform any duty assumed under an agreement made according to article 13, paragraph 2.

3. When a container is packed, or a vehicle is loaded by the shipper, the shipper shall carefully and properly stow, lash and secure the contents in

¹²¹ Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.

41

¹²² Article 33.1 of Rotterdam Rules.

¹²³ Article 33 of Rotterdam Rules.

¹²⁴ Article 27 of Rotterdam Rules.

or on the vehicle or container, and in such a way that they will not cause harm to persons on the property.

According to paragraph 1, the shipper must convey the goods to the carrier in the "ready for carriage" condition unless the contract of the carriage provides otherwise¹²⁵. This means the agreement can offer terms that may not require such delivery to be in "ready for delivery" condition. The actual state of readiness is subject to the specifics provided in the contract. It may differ according to the nature of the cargo, the custom of the port, the destination and other factors.

The second section of paragraph 1 requires delivery in such conditions as specified in that segment. The situation must be such that the goods will be able to withstand the vagaries of the carriage proposed by the parties and comprise the specific elements enumerated in the provision, namely, loading, handling, stowing, lashing, securing and unloading. An additional requirement is that no damage will be caused to any person or property.

It is contended that even if the goods are not transported ready for carriage because the contract provided else, the requirement relating to the specifically enumerated elements of the condition in which delivery will be made is independently mandatory, containing the need not to cause harm to persons or property. This is apparent from using the words "in any event", which has been judicially held to mean unlimited and without exception¹²⁶. Any non-compliance with the compulsory requirement leading to damage or loss will fall on the shipper in any dispute relating to the division of obligation between carrier and shipper. The carrier should, at any rate, be able to depend on the exclusions set out in Article 17, paragraph 3 subparagraphs (h), (j) and (k) of the catalogue of anomalies to escape liability. While the division of shipper obligations is obvious from the two segments of paragraph (1), their co-relation and interaction are less than a model of clarity. As stated above, a mandatory requirement imposed on the shipper in paragraph

¹²⁵ Article 27.1 of Rotterdam Rules

¹²⁶ *Parsons Corp and Others v. CV Scheepvaartonderneming "Happy Ranger" and Others (The*

Happy Ranger) [2002] ECWA Civ 694; [2002] 2 Lloyd's Rep 357, at p. 38)

1 is to deliver the goods in such condition as not to cause "harm" to property or person¹²⁷. In a parallel provision in the chapeau to Article 32, the term "danger" is used about persons and property.

This instantly raises the query of whether and how the two terms are different.

It is said that "danger" implies a need for measuring the risk of "potential threat damage" whereas "harm" is a relatively physical phenomenon and "implies the realization of such threat and actual damage eventually caused". Similarly, whether or not a condition will cause damage can only be determined *ex post facto* at the end of the transportation¹²⁸.

Any reference to the environs in this provision is conspicuous by its absence, though its omission may well be intentional on specifically relevant grounds¹²⁹.

Apparently, environmental damage can be caused by cargo that is not inherently environmentally dangerous¹³⁰. Therefore it would be unreasonable to impose on the shipper the obligation to deliver goods in a condition so as not to cause any harm to the environment, whether through the Convention or the contract of carriage.

Paragraph 2 of Article 27 makes a cross-reference to paragraph 2 of Article 13 under which the shipper and the carrier may reach an agreement regarding the loading, handling, stowing, or unloading of the goods to be performed by the shipper, the documentary shipper or the consignee. Any such agreement must be referred to in the contract. Paragraph 2 of Article 27 requires the shipper to perform any such obligation properly and carefully. This is a straightforward and uncontroversial provision. Paragraph 3 of Article 27 has the same requirements about containers as in paragraph 2, including the duty to make the container or vehicle for delivery so as not to cause harm to persons or property¹³¹.

¹²⁷ Article 27 of Rotterdam Rules

¹²⁸ Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009), pp.

81

¹²⁹ *Ibid* at. 91.

¹³⁰ *Ibid*.

¹³¹ Paragraph 2 and 3 of Article 27.

(3.7) Concluding Remarks.

This chapter mainly focused on the liability issues arising from the carrier-shipper's carriage of dangerous goods by sea. Hague-Visby Rules, Hamburg Rules and Rotterdam Rules were also briefly discussed in this chapter. Rotterdam Rules has not come into force, but it will come into force at any time. Third-party liability will be addressed in the next chapter.

CHAPTER 4

THIRD PARTY LIABILITY FOR DAMAGE AFFECTED BY DANGEROUS GOODS

4.1 Marine Safety and Maritime Pollution Connected Liability: Preliminary Remarks

4.2 Ship-source Oil Pollution

4.2.1 Liability

4.2.2 Compensability

4.2.2.1 Damage to Property

4.2.2.2 Economic Loss

4.2.2.3 Consequential Loss

4.2.2.4 Pure Economic Loss

4.2.2.5 Relational Economic Loss

4.3 Liability under Convention Regimes

4.3.1 Hazardous, Noxious and Harmful Substances

4.3.2 Preliminary Observations

4.3.3 HNS Convention

4.4 Nuclear Damage

4.4.1 Preliminary Remarks

4.4.2 Relevant Convention Law

4.4.3 Nonexistence of General Carriage Conventions Relating to Nuclear

Material

4.4.4 Special Convention Regime for Sea Carriage of Nuclear Material

4.5 Concluding Remarks

4.1 Maritime Safety and Marine Pollution Associated Liability: Preliminary Remarks

This chapter will discuss the third party liability for damage caused by hazardous or dangerous goods. Here, the third party means any individual or entities other than the shipowner or cargo owner, i.e. the carrier or shipper. This chapter mainly focuses on the international conventions speaking liability and its limitation issues relating to nuclear damage, HNS and ship source oil pollution writhed by the third party. The Hague-Visby Rules, the Rotterdam Rules, and the Hamburger Rules are not worried about third-party liabilities. Even though the HNS Convention has not yet come into force, it is crucial regarding third-party liabilities. The damage caused by the carriage of nuclear substances

are also discussed concerning the Nuclear Convention, 1971 and the relevant case laws are also discussed.

There are mainly four branches of maritime safety: safety of navigation, ship safety, occupation of protection, and cargo safety, which includes the personal safety of crew members and passengers on board¹³². Regarding the carriage of a dangerous good, the primary concern is cargo safety, which consists of the cargo's safe condition and what harms the shipment might cause harm to the persons or other property on board the ship. Even if a recognised convention related to ship-source pollution damage, they did not discuss the liability and compensation system except the HNS Convention. So we can rely on general tort law and remedies available under it to deal with the damage caused by ship-source pollution.

4.2 Ship-source Oil Pollution

The law deals with ship-source marine pollution mainly worries about the third-party liability of the cargo carrier, which is a pollutant; the main one is oil cargo. Oil is also a pollutant when it carries as fuel in the bunkers of the ship¹³³. The question of law consists of two elements, i.e. the liability of the pollutant and the damages or compensation payable to third party victims of pollution damage¹³⁴. Here, pollutant means the shipowner on whose ship the cargo is carried⁴. In the case of oil pollution, the international oil industry is considered indirectly one of the pollutants because of its character. And in situations where cargo is not under the control of the cargo owner, he will not be held liable.

4.2.1 liability

¹³² AFM de Bievre, Aline FM. "Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea." (1986) 17 J. Mar. L. & Com. 61.

¹³³"Liability and Compensation for Bunker Pollution." J. Mar. L. & Com. 33 (2002), 553, 556

¹³⁴

. Gauci, Gotthard M. "Protection of the Marine Environment through the International Ship Source Oil Pollution Compensation Regimes." (1999) REIEL 8.1: 29-36.

The liability element of the pollution damage is two-fold, viz. the type of liability and the type of claim. The damage caused by the ship-source pollution is a maritime tort. This damage is known as delict in civil law jurisdictions. The law relating to delict would be found either in legislation such as the Civil Code or in the state of a statute¹³⁵. And in common law jurisdictions, tort law is not seen as such in any statutes, but it is almost contained in case law jurisprudence¹³⁶. If the source of law is Conventions, there will be some implementing legislation dealing with the liabilities and compensations relating to the ship-source pollution damage. The Convention law will be reflected in national legislation in civil law jurisdictions that follow dualism¹³⁷. In monistic jurisdictions, whether civil or common law persuasion, the law may directly result from the relevant Convention if that Convention is considered self-executing or directly applicable¹³⁸.

The nature of the ship-source damage claim can be seen in the case of laws in common law jurisdiction and Convention or statute law in both common and civil jurisdictions¹³⁹. The United States is not a party to the convention-related ship-source pollution damage; the liability and compensation are dealt with under the Oil Pollution Act 1990.

In tort law, if the defendant's conduct is at fault, then he is liable. And if his act is not at fault, he is not responsible, and the plaintiff is not entitled to get a remedy under the law of tort. In the case of a claimant for the damage caused by pollution, the quality of the defendants' act is relevant; the claimant does not have to prove the fault on the defendant¹⁴⁰. There is a strict liability of pollutants.

¹³⁵ *ibid*

¹³⁶ . Hartje, Volkmar J. "Oil pollution Caused by Tanker Accidents: Liability versus Regulation." (1984) *Nat. Resources J.* 24. 41

¹³⁷ Tetley, William. "Mixed Jurisdictions: Common Law v. Civil Law (Codified and Uncodified)." *La. L. Rev.* 60 (1999): 677.

¹³⁸ . Proshanto K. Mukherjee, *Maritime Legislation*, Malmo: WMU Publications; 2002, pp. 126-129

¹³⁹ Tan, Alan Khee-Jin. *Vessel-source Marine Pollution: the law and Politics of International regulation.* (Vol. 45. Cambridge University Press, 2005); pp288-290

¹⁴⁰ . Deakin, Simon F., Angus Johnston, and Basil S. Markesinis. *Markesinis and Deakin's tort law.* Oxford University Press, 2012; p41-44

The IMO recognised the International Convention on Civil Liability for¹⁴¹ Oil Pollution Damage, 1969, to ensure adequate compensation to the third party victim of oil pollution caused by the oil-carrying ship. This Convention makes the shipowner liable for causing damage, and his liability is strict. The owner must prove that any exceptions may operate except where the owner has been guilty of actual fault in each case. This Convention applies to all seagoing vessels carrying oil in bulk¹⁴². The ship carrying more than 2,000 tons of oil is required to maintain insurance regarding oil pollution. This Convention does not apply to warships or other vessels owned by the state and is used for the time being for non-commercial government service¹⁴³. This Convention was renewed in the year 1992.

4.2.2 Compensability

Compensation is a remedy. The doctrine of restitution in integrum is the basic idea of civil

-remedy, i.e. put back the plaintiff in the same position where he would have been in the wrong committed by the defendant had not been inflicted on him¹⁴⁴. So, the defendant must make restitution in totality to put back the plaintiff in the same position as he would if he hadn't suffered the injury, loss or damage inflicted on him by the defendant. But in case of pollution damage from oil spillage, the only remedy available to the claimant is compensation.

Not every damage, loss or injury is compensable under the law. In the common law system, solely a claimant has locus standi regarding the damage claimed, and the court where the action begins will be compensated¹⁴⁵. The convention law is noiseless in locus

¹⁴¹ CODES AND CONVENTIONS QUESTIONS & ANSWERS PART-9 | Marine
<http://marineinbox.com/marine-exams/codes-and-conventions-questions-answers-part-9/>

¹⁴² ibid

¹⁴³ ibid

¹⁴⁴ . Doud, Alden Lowell. "Compensation for Oil

Pollution Damage: Further Comment on the Civil Liability and Compensation Fund Conventions." J. Mar. L. & Com. 4 (1972): 525.

¹⁴⁵ . Zhu, Ling, and Ya Chao Zhao. "A feasibility Assessment of the Application of the Polluter-Pays

standi and jurisdiction; one must rely on the domestic law. The problem with domestic law is that it is not uniformly applied across the board in diverse jurisdictions. Compensation for environmental damage, economic losses, and property are the three main issues involved in the compensation law for ship-source pollution damage¹⁴⁶.

4.2.2.1 Damage to Property

Only the damage to physical property which comes under the conventional definition of pollution damage is compensable. The property damage must be the damage or loss caused by the contamination resulting from the oil spill from the ship, for example, damage caused by the trawls, net and other fisher gears from the fisher vessel¹⁴⁷. And the different model is causing damage to the buildings and structures and land located within the proximity of the oil spill and polluted by it¹⁴⁸.

Under the Convention, the claimant need not prove the fault on the defendant's part, but he has to show the pollutant came from the defendant's ship and thereby suffered damage. He also has to offer that he has the locus standi too.

4.2.2.2 Economic Loss

Principle to Ship-source Pollution in Hong Kong." Marine Policy 57 (2015): 36-44.

¹⁴⁶ ibid

¹⁴⁷ ibid

¹⁴⁸ ibid

Economic loss relates to the damage or loss suffered by the victim can only be expressed in terms of money. The physical loss is directly evolved from the pollution event in question¹⁴⁹.

Generally, the economic losses are not compensable but, there are some exceptions. The lack of accuracy and certainty in economic loss's computation make the economic losses non-compensable. In *Ultramares Corporation v. Touche*, Cardozo J. referred to liability for financial loss as "... liability in an unspecified amount for an indeterminate time to an unspecified class" ¹⁵⁰.

In many situations where the economic losses are not compensable, the claimant may suffer hardships and, hence, justice not being served. Under the civil and common law jurisdictions, the financial losses are not compensable. Still, certain exceptions are added to avoid the hardships faced by the claimant and serve justice to the claimant. Some of the exceptions are mention below.

4.2.2.3 Consequential Loss

Consequential loss is indirect, which means the financial caused powerful to the physical loss or damage to the property¹⁵¹. The significant loss is compensable under the ship-source pollution law. For example, the fisherman suffers damage to his fishnet and other gear equipment due to the oil spillage, resulting in income loss. The consequential loss must be the immediate cause of the physical damage to the marine environment or property¹⁵².

¹⁴⁹ Garza-Gil, M. Dolores, Albino Prada-Blanco, and M. Xosé Vázquez-Rodríguez. "Estimating the Short-Term Economic Damages from the Prestige Oil Spill in the Galician Fisheries and Tourism." *Ecological Economics* 58.4 (2006): 842-849.

¹⁵⁰ (1931), 255NY 170 at p 179.

¹⁵¹ Spies, Emerson G., and John C. McCoid. "Recovery of Consequential Damages in Eminent Domain." *Virginia Law Review* (1962): 437-458.

¹⁵² Gauci, Gotthard Mark. "The Problem of Pure Economic Loss in the Law Relating to Ship-Source Oil pollution Damage." *WMU Journal of Maritime Affairs* 2.1 (2003): 79-88.

4.2.2.4 Pure Economic Loss

Pure economic losses are independent of the physical losses to the property. This loss is only related to the injury suffered by the claimant and not associated with the fault of the pollutant. The principle of "special relationship of proximity" hypothesised by the House of Lords in the case of *Junior Books Ltd v. Veitchi Co. Ltd*¹⁵³ is an exemption in the general law of economic losses, which has an equivalent counterpart in ship-source pollution law¹⁵⁴. Loss of income suffered by subsistence fishermen who earn their livelihood from fishing in specific waters that have become polluted is compensable by the special relationship between the fishing vocation of the fisherman and the polluted waters. It represents a modified application of the Veitchi doctrine¹⁵⁵.

Pure economic loss may include loss of opportunity to earn income, loss of profits and loss of income.

4.2.2.5 Relational Economic Loss

Secondary or relational economic loss is a brand of pure financial loss that is not compensable, and no exemptions are made¹⁵⁶. Even though the claim for loss of income by fishers is that economic loss is compensable, the exporter of processed fish or fish processing plant is not compensable because they are secondary losses. In the *Algrete Shipping v. IOPC Fund 1971*¹⁵⁷, the Company named Tilbury filed a complaint against Algrete shipping for profit loss due to the fish ban caused by the oil spillage. The court

¹⁵³ . [1983]1 A.C. 520

¹⁵⁴ See CMI Guidelines on Oil Pollution Damage, *Unif. Law Rev.* (1994) os-22 (1): pp. 327-339

¹⁵⁵ . [1983]1 A.C. 520

¹⁵⁶ Goldberg, Victor P. "Recovery for Economic Loss Following the Exxon" Valdez" Oil Spill." *J. Legal Stud.*1 (1994): 1-39.

¹⁵⁷ . [2003] 1 Lloyd's Rep 227

rejected the claim for economic loss on the ground of remoteness, Steel J. holding that it was "secondary, relational, derivative and/or indirect."¹⁵⁸

4.3 Liability under Convention Regimes

The convention regimes were introduced related to ship-source pollution damage because of the infamous Torrey Canyon disaster of 1967. This was a Liberian tanker that ran aground on the seven stones Reef off the west coast of England on March 18 1967¹⁵⁹. The contamination so caused was of unprecedented proportions, leaving the local community and the British government and the international community at large in a state of unprepared despair¹⁶⁰. The British government had the vessel taken out to the sea and wrecked it¹⁶¹. The ship sank, which left the maritime world withered and stunned. No one knew how to handle the catastrophe, but some fishermen poured detergents, which created more harm than the oil spill¹⁶².

In 1969, IMCO, as it was then, swung into action and convened a diplomatic conference in Brussels¹⁶³. As a result, two conventions emerged, namely, Intervention Convention, which is a Public International Convention. The other one is Civil Liability Convention which is a Private maritime law. Intervention Convention allows the coastal state to intervene on the high seas

¹⁵⁸ See B. Soyer, "Ship-sourced oil pollution and pure economic loss: The quest for overarching principles", (2009), 17 *Torts Law Journal*, pp. 270-294.

¹⁵⁹Reichenbach, Franz. "Legislative Developments Concerning Oil Pollution of the Seas." *Int'l Bus. Law*. 8 (1980): 9.

¹⁶⁰ Jingjing Xu, "The International Legal Framework Governing Liability and Compensation for Ship-source Oil Pollution Damage", in Maximo Q. Mejia, Jr. *Policy- Liber Amicorum Proshanto K. Mukherjee, Selected Issues in Maritime Law and Policy*, New York: Nova Science Publishers, 2013 at pp. 105-133

¹⁶¹ *ibid*

¹⁶² See Edgar Gold, "Pollution of the Seas and International Law", *J. Mar Law & Com*, (1971) Vol. 3(1)

¹⁶³ See "Brief History of IMO" <http://www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx> accessed 25 August 2021.

in the event of a pollution incident if its coastline or coastal interests are in imminent danger of suffering pollution¹⁶⁴. Civil Liability Convention dealt with liability for pollution damage of the registered owner of a laden tanker. This Convention also manages the ship-source pollution from a laden tanker carrying both cargo oil and bunker oil. The CLC makes only the registered owner liable for the pollution damage because of the complications the claimant faced in the Torrey Canyon case to track down the entity that could be held responsible for pollution damage¹⁶⁵. The ship owner's liability is strict, and there are some defences like the act of God is available to him to escape from his liability. In 1971, Imo adopted another convention named International Oil Pollution Compensation Fund Convention was adopted.

4.3.1 Hazardous, Noxious and Harmful Substances

4.3.2 Preliminary Observations

There are varieties of dangerous goods, from inflammable cargo to substances that can cause blast, and some substances will expand their weight when it comes into contact with seawater. And this will gradually increase the ship's deadweight and which results in its freeboard reduction. Some substances emit dangerous gas. So, IMO developed HNS Convention to prevent and minimise the unsafe condition resulting from hazardous cargo¹⁶⁶.

4.3.3 HNS Convention

¹⁶⁴ . International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969

¹⁶⁵ Boyle, Alan E. "Globalising environmental liability: the interplay of national and international law." *Journal of Environmental Law* 17.1 (2005): 3-26.

¹⁶⁶ . Goransson, Magnus. "HNS Convention." *Univ. L. Rev.* ns 2 (1997): 249; see also "HNS Convention Implementation" <http://www.imo.org/en/OurWork/Legal/HNS/Pages/HNSConvention.aspx> accessed 25 August 2021

HNS Convention was presented by IMO in the year 1996 to compensate for the damage caused by the spillage of hazardous and toxic substances during maritime transportation. The definition of shipowner under this Convention includes registered shipowner, his agents and servants. The liability is strict, and if there is a fault on the defendant's part and thereby plaintiff suffered any injury or loss, he must be liable to compensation to the plaintiff. The plaintiff must prove the fault on the defendant's part.

HNS Convention provides a two-tier compensation system. Tier one covers the shipowner's compulsory insurance, and tier two covers when the insurance is insufficient, i.e. HNS Fund. Personal injury or loss of life, harm to property outside the ship, cost of preventive measures and damage or loss caused by the contamination of the environment are the types of damage covered under this HNS Convention. HNS Fund includes oil account, general account, LNG AND LPG account.

4.4 Nuclear Damage

4.4.1 Preliminary Remarks

Nuclear substances are the most toxic dangerous goods. The damage caused by them is very dangerous whether they are carried as cargo or not. The atomic matter took on board a vessel is denoted as "material" and is not restricted to the goods in terms of the regulations that apply under convention law¹⁶⁷. They spread across the board where they do, and the clear focus is on the responsibility to third parties away from the scope of the carrier-shipper relationship¹⁶⁸. The liability issues relating to the damage caused by the nuclear materials affect the third parties.

¹⁶⁷ McRae, Ben. "The Compensation Convention: Path to a Global Regime for Dealing with Legal Liability and Compensation for Nuclear Damage." (1998)

¹⁶⁸ *ibid*

4.4.2 Relevant Convention Law

There are mainly six conventions relating to the liability for nuclear damage. They are Convention on Third Party Liability in the Field of Nuclear Energy, 1960¹⁶⁹(Paris Convention), Protocol, 2004¹⁷⁰, Convention on the Liability of Operators of Nuclear Ships, 1962¹⁷¹, Convention Supplementary to the Paris Convention, 1963¹⁷², International Convention on Civil Liability for Nuclear Damage, 1963 (Vienna Convention), Protocol 1997¹⁷³, Convention on Civil Liability in the Field of Maritime Carriage of Nuclear Material 1971¹⁷⁴, the Convention on Liability of Operators of Nuclear Installations check date. Originally, the Paris Convention was applied to the European member states of the Organization for Economic Cooperation and Development. Subsequently, the rules were added to the Vienna Convention on Civil Liability for Nuclear Damage, 1963.

4.4.3 Non-Existence of General Carriage Conventions Concerning Nuclear Material

There are only two conventions directly related to the civil liability for nuclear damage, i.e. 1962 and 1971 Convention. There are no conventions that deal with the relationship between the carrier and shipper regarding the carriage of nuclear materials on board. The legal duties are based on the contractual relationship between the two parties and debatably slanted in favour of the shipper, as in the case of other classes of dangerous goods¹⁷⁵. The reasoning for this is that the shipper of the cargo is in the best position to know its characteristics and the potential harm it may cause¹⁷⁶. Therefore, the shipper is under a stringent duty of disclosure and must discharge that duty faithfully and without

¹⁶⁹European Yearbook 1960, 203, 268

¹⁷⁰. American Journal of International Law 1963, 268

¹⁷¹. International Legal Materials 1963, 685

¹⁷² UN Treaty Series Vol. 1963, Nr 1-16197, p. 263

¹⁷³. International Legal Materials 1972, 277

¹⁷⁴ UNTS, Vol. 1063, No. 1-16197, 263

¹⁷⁵ See discussion in Chapter 3

¹⁷⁶ Roark, . "Explosion on the High Seas-The Second Circuit Endorses International Uniformity with Strict Liability for the Shipment of Dangerous Goods: Senator v. Sunway." Sw. UL Rev. 33 (2003):139..

fail¹⁷⁷. Added to this verity is that atomic substances are ultra-hazardous to society as a whole and therefore engender responsibilities on the part of the states involved in the carriage of such chemicals¹⁷⁸.

4.4.4 Special Convention Regime for Sea Carriage of Nuclear Material

The convention regime comprising the five conventions mentioned above essentially exists because nuclear materials, whether transported by ship or other modality, contain state and inter-state interests¹⁷⁹. The purpose for a corporation of conventions is because of the extraordinary or ultra-hazardous character of anything nuclear and its shocking effects on human society as a total if damage results irrespective of who in law or how it happens might be accountable. The international and political dimension of carrying nuclear materials is thus lavishly apparent, which has on condition that the impetus for the development of convention law but without detailing the parameters of liability except for portraying an express recognition of the principle of absolute liability¹⁸⁰.

In 1971, the IMO, in association with the IAEA and the European Nuclear Energy The Agency for Economic Cooperation and Development (OECD) assembled a conference to adopt the "Convention to Regulate Liability in reverence of Damage Arising from the Maritime Carriage of Nuclear Substances" ¹⁸¹. The meeting was

¹⁷⁷ . ibid

¹⁷⁸ . See Article 235 of UNCLOS dealing with responsibility and liability of states regarding protection and preservation of the marine environment.

¹⁷⁹ . See Goldie, "International Principles of Responsibility for Pollution", Colum. J. Transnat'l L. 1970, 311

¹⁸⁰ . ibid

¹⁸¹ . Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material

(NUCLEAR) Adoption: 17 December 1971; Entry into force: 15 July 1975, see details on [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Convention-relating-to-Civil-Liability-in-the-Field-of-Maritime-Carriage-of-Nuclear-Material-\(NUCLEAR\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/Convention-relating-to-Civil-Liability-in-the-Field-of-Maritime-Carriage-of-Nuclear-Material-(NUCLEAR).aspx) accessed 25 September 2021

convened to solve difficulties and conflicts resulting from applying the instruments dealing with shipowner's liability¹⁸². This Convention stipulated that a person responsible for compensating for the damage suffered by a nuclear incident should be excused from liability where the nuclear installation operator is liable¹⁸³.

Concluding Remarks

In this chapter, we discussed three aspects of third party liabilities. At first, we debated third party liability related to ship-source pollution damage and secondly, we discussed third party liability in terms of damage caused by hazardous and harmful substances. Finally, we looked into the third party liability in terms of the pollution of the nuclear material. And in the chapter, we will be dealing with the liabilities of the parties.

Chapter-5

Liabilities of the parties.

(5.1) General

(5.2) Extent of shipper's liability.

(5.3) Liability to other cargo owner third parties.

¹⁸² ibid

¹⁸³ Paris Convention in the Field of Nuclear on Third Party Liability in the Field of Nuclear Energy; or the Vienna Convention of 21 May 1963 on Civil Liability for Nuclear Damage.

(5.4) Concluding Remarks

(5.1) General

Generally speaking, in the carriage of goods, goods are the body of damage or loss. The system is mostly based on the concept of the loss of or damage, or delay to goods. However, it is not always so. Cargo can cause several damages in different situations while in transit. Specifically, the carriage of dangerous goods by sea carries substantial perils of damage to the ship and other cargoes. In this circumstance, goods become the subject rather than the object. Hazardous goods can, for example, reason a bang or fire, destroy the cargo holds, or solidify the liquids in the shipment has. Moreover, the carrier may incur extra expenses such as unloading and reloading cargoes, additional bunker expenses due to the loss to the ship since he may have to diverge. The vessel may be captive or quarantined so that the carrier may suffer economic loss, or the vessel may need to be disembowelled. Furthermore, cargo may damage other cargo onboard or may injure the crew. Following this fact, Art. IV.6 of The Hague/ Hague-Visby Rules offers that "Goods of inflammable, explosive, or hazardous nature to the shipment of which the carrier, master or agent of the carrier has not agreed with facts of their nature and character ... the shipper of such goods shall be responsible for all expenses and damages directly or indirectly arising from such shipment." The carriage of hazardous goods raises, first of all, the question of the shipper's liability to the vessel and the carrier. Furthermore, it provides rise to the question of the responsibility of the shipper to third parties, e.g. Stevedores, seaman and owners of the other cargoes. However, this liability is in tort; therefore, it does not fall principally under the carriage contract. However, suppose the carrier incurs a penalty to third parties due to the shipment of dangerous goods. In that case, he can recover the amount of obligation in a recourse action against the shipper. So, claims for third parties might fall indirectly under the contract of carriage and the Hague-Hague/Visby Rules.

(5.2) Extent of shipper's liability.

(5.2.1) liability for all damages and expenses "indirectly or directly." arising

Art. IV/6 of Hague/Hague-Visby Rules offers that "... the shipper of such cargo shall be liable for all expenses and damages indirectly or directly arising out of or resulting from such consignment..." Does the phrase "directly or indirectly" make the shipper responsible more than that which would apply in the case of a conventional claim for damages for breach of contract or a contractual indemnity? It is opposed that the words did not affect the operation of the usual Rule that, in the nonexistence of a clear provision to the opposite view, a person cannot enforce an indemnity where one of the sufficient reasons for his loss is his wrongful act¹⁸⁴. To fully or for all that can compensate the plaintiff, in some sense, flow from a violation of contract would often lead to undesirable results. Therefore, the law has developed several rules to limit damages for breach of contract. Hence, no loss may be recovered by way of injuries if it is a too small consequence of the violation. In contracts, the test for finding remoteness is whether the loss in question was fairly and reasonably within the parties' contemplation, as a probable result of the breach, as at the date of the contract¹⁸⁵.

¹⁸⁴Cooke/Young/Taylor, *Voyage Charters* (2001), 1010.

¹⁸⁵ The well-known statement of principle in the leading case of *Hadley v. Baxendale* (1854) 9 Ex. 341, 354, was generally considered to have embraced two rules: the first rule being concerned with the recovery of damages within the contemplation of the parties at the time the contract was made, a rule which was understood to be dependent on the knowledge of special circumstances and to require that those circumstances had been made known to the party who had broken the contract before or at the time the contract was made. Where it was the carrier who had broken the contract by failing to deliver the goods or by delaying their delivery, the application of these rules had prevented the owner of the goods from recovering as damages for breach of contract the loss of the market value of the goods. Cooke/Young/Taylor, *Voyage Charters* (2001),

(5.2.2.) causation or remoteness of damage?

In the *Fiona*¹⁸⁶ case, two submissions were made on the meaning of "directly or indirectly". The first submission was sufficient to facilitate the claimant to hold that the shipment of fuel oil, i.e. hazardous cargo, had been a reason for the loss¹⁸⁷. The right to an indemnity was not restricted to circumstances where loading those goods were the proximate or dominant reason for the loss¹⁸⁸. The opposing view was that the words "directly and indirectly" were introduced to render items of loss recoverable, which might else have been regarded as too remote to be recoverable¹⁸⁹.

The words "directly or indirectly" are not established in another place in the Hague-Visby Rules¹⁹⁰. A hint to the legislative purpose underlying "directly or indirectly" may lie in Art. IV.6 empowers the carrier to land and destroy hazardous goods without sustaining obligation to the shipper. One probability, then, was thought that the person who drafted the guidelines was anxious if a loss of market or profit was sustained by the carrier through the custody of his ship. At the same time, the cargo that was landed should create a recoverable item of loss¹⁹¹. Before 1924, there had been many cases regarding the carriage of goods. A limiting principle had been applied to exclude the recovery of losses that might be considered to have been caused only remotely from a violation of the contract. It may be that the legislative objective of including the word "indirectly" in Art. IV.6 was to safeguard that all losses incurred by a carrier through the detention of his ship due to the shipment of a hazardous cargo should be held to be recoverable. This may have been the objective of "directly or indirectly" receiving some support from the terms

564.

¹⁸⁶ [1993] 1 Lloyd's Rep. 257

¹⁸⁷ *Ibid.* at 286.

¹⁸⁸ *Ibid.*

¹⁸⁹ *Ibid.*

¹⁹⁰ Art. III.5 confers on the carrier a right of indemnity against loss arising or resulting from inaccuracies in the particulars of the goods furnished by the shipper. That indemnity does not contain the words quoted

¹⁹¹ *The Fiona* [1993] 1 Lloyd's Rep. 257, 286.

of another international shipping rule, viz. Rule C of the York-Antwerp Rules, 1924. Rule C said that

Only damages, expenses or losses which are the direct result of the general average act shall be endorsed as general average. Loss or damage sustained by the vessel or goods through delay, whether on the voyage or successively, such as demurrage, and any indirect loss whatever, such as loss of market, shall not be acknowledged as general average.

It may be important that Rule C gives "loss of market" a typical example of "indirect loss".

In *Fiona*, it was pronounced that it might not be right to interpret Art. IV.6 by reference to English rules dealing with the remoteness of damage as they were in 1924¹⁹². The words "directly and indirectly" are relatively general and applicable to causation as remoteness¹⁹³.

The concept of proximate cause has little role in the law of carriage by sea; it is quite found in insurance law¹⁹⁴. It was held that the Rule renders the shipper accountable for all damage "whether indirectly or directly arising," which makes it quite clear that indemnity is not limited to situations where the shipment of hazardous goods is the proximate or dominant cause of the carrier's loss¹⁹⁵.

¹⁹² *Ibid.* at 287.

¹⁹³ *Ibid.*

¹⁹⁴ Colinvaux, *Carver Carriage by Sea* (1982) Vol. 1, 108.

¹⁹⁵ However, it should not be forgotten that where the facts disclose that the loss was caused by the concurrent causative effects of an excepted and non-excepted peril, the carrier remains liable. He can only escape liability to the extent that he can prove that the loss or damage was caused by the excepted peril. See *infra* p. 189 ff. In *United States v. M/V Santa Clara* 887 F.Supp.825, an action for loss overboard of containers of arsenic trioxide, as well as spill on board the vessel of magnesium phosphide, was brought by the vessel owner and operator against the shippers and consignee of those chemicals, seeking contribution and indemnification pursuant to bills of lading and under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). It was held that although shipper's failure to properly label magnesium

On the other hand, the terms "...directly and indirectly..." concerning the shipper's liability in the shipment of hazardous goods had been included in the CMI/UNCITRAL draft instrument¹⁹⁶. In principle, the Hague/Hague-Visby Rules manage the contractual relationship between the carrier and shipper.

Though, if the carrier paid out a claim due to the injury suffered from the negligence on the part of the shipper, the carrier is entitled to claim compensation from the shipper. The words "directly and indirectly" in the draft instrument were intended to mention such loss and damage¹⁹⁷. Though it was recommended that the terms "directly and indirectly" could interfere with causation issues, it was decided to delete them¹⁹⁸.

(5.3) shipper's and carrier's liability towards third parties.

(5.3.1) shipper's liability to the other cargo owner

There is no contractual relationship between shippers and cargo owners. Therefore, the shipper's responsibility is in delict or tort and does fall neither under the contract of carriage nor Art. IV.6 of the Hague/Hague-Visby Rules¹⁹⁹.

(5.3.2) carrier's liability to the other cargo owner.

phosphide as hazardous cargo breached bill of lading, that breach did not render the shipper and consignee liable for all damages associated with magnesium phosphide spill, as such damages, were not foreseeable at the time of contract, considering remoteness in time and number of intervening events. *Ibid.* at 835.

¹⁹⁶ A/CN.9/WG.III/WP.56, 31.

¹⁹⁷ A/CN.9/591, 38 f., 44.

¹⁹⁸ *Ibid.* at 44.

¹⁹⁹ Tetley, *Marine Cargo Claims* (1988), 462; Colinaux, *Carver Carriage by Sea* (1982),

843 fn. 67; Du Pontavice, "The Victims of Damage Caused by the Ship's Cargo" in

Grönfors (ed.) *Damage from Goods* (1978), 29, 36 f.

Explosion and/or fire hazards are generated in Class 1 -5 of the IMDG Code. Two types of hazards are mentioned under Art. IV.6 of the Hague/Hague-Visby are inflammability and explosivity. Under Art. IV.2 (b)²⁰⁰ of the Rules, the carrier is excused from liability for loss or damage resulting from

Fire²⁰¹. Based on this, as far as fire is involved in the cargo damage, the carrier is not liable for dangerous goods or other goods on board.

Furthermore, Art. IV.2(q) offers that "Neither the carrier nor the ship shall be accountable for loss or damage resulting from or arising from ... any other cause arising without fault or privity of the carrier, or the neglect or fault of the servants or agents of the carrier... ."

This exemption was included to take the place of the various other exemptions traditionally used in bills of lading²⁰². This exemption is broad compared to other exemptions and can cover virtually any cause for cargo loss, together with those in clauses IV.2 (a)-(p). Yet, what it gives the carrier in terms of substantive breadth takes away its burdens of proof and persuasion.

The carrier can rely on Art 4.2(q) as long as he does not aware of the precarious nature of the goods and the required precautions to be taken. Proof of sole reason of the damage to be the hazardous cargo not known to the carrier, master or agent concerning other cargo-owners is also proof of " neither privity of the carrier that nor the actual fault nor the neglect or fault of his agents or servants contributed to the damage."²⁰³

²⁰⁰ U.S. COGSA § 1304(2)(q), HGB § 607(2).

²⁰¹ Colinvaux, *Carver Carriage by Sea* (1982) Vol. 1 180, 378; Tetley, *Marine Cargo Claims* (1988), 411 ff.; Treitel/Reynolds, *Carver on Bills of Lading* (2005), 607 f. ; Schoenbaum, *Admiralty and Maritime Law* (2004) Vol. 1, 692 ff.; Karan, *The Carriers Liability under the International Maritime Conventions the Hague, Hague-Visby, and Hamburg Rules* (2004), 294 ff.

²⁰² For a list of exemptions see Boyd/Burrows/Foxton, *Scrutton on Charterparties* (1996), 208 ff.

²⁰³ Mustill, "Carriers' Liabilities and Insurance" in Grönfors (ed.) *Damage from Good* (1978), 69, 79; *In Goodwin, Ferreira & Co. v. Lamport & Holt, Ltd.* (1929) 34 Ll. L. Rep. 192, 196, insufficiency of packing damaged other cargo. The shipowner has discharged onus of proof showing that insufficiency of packing cargo caused damage to

Though, there may be situations where the carrier might be liable, for example, by failing to inspect carefully the goods brought on board, or both the shipper and carrier might have contributed to the damage of the other load²⁰⁴. In such cases, the carrier can way out on the shipper under Art. IV.3 or Art. IV.6 of the Rules²⁰⁵.

(5.4) Concluding Remarks

In this chapter, we discusses the extent of liability where we saw the shipper is more libile if there is directly or indirectly caused damage than in a normal claim. This chapter also discussed both the shipper's and carrier's liabilities towards other cargo owner. In next chapter we will discuss Indian regime on carriage of dangerous goods.

another cargo. It was held that accident arose without fault or privity of the carriers or without fault or neglect of the agents or servants of the carriers

²⁰⁴ Du Pontavice, "The Victims of Damage Caused by the Ship's Cargo" in Grönfors (ed.)

Damage from Goods (1978), 29, 50

²⁰⁵ *Ibid.* at 51 f. ; Mustill, "Carriers' Liabilities and Insurance" in Grönfors (ed.) *Damage from Good* (1978), 69, 84 f.

CHAPTER-6

INDIAN REGIME ON THE CARRIAGE OF DANGEROUS GOODS BY SEA

- (6.5) INTRODUCTION**
- (6.6) INDIAN LAW RELATING TO CARRIAGE OF DANGEROUS GOODS BY SEA.**
 - (6.2.1) The Indian Carriage Of Goods By Sea Act.1925.**
 - (6.2.2)_Merchant Shipping Act,1958**
 - (6.2.3)_Merchant Shipping (Carriage of Cargo) RULES, 1991.**
- (6.7) INTERNATIONAL CONVENTIONS RATIFIED BY INDIA.**
 - (6.3.1) IMDG Code**
 - (6.3.2) SOLAS Convention**
 - (6.3.3) MARPOL Convention**
 - (6.3.4) UN Recommendation in Transport of Dangerous Goods**
- (6.8) CONCLUDING REMARKS**

(6.1)INTRODUCTION

There are strict rules regarding the packaging, labelling, storage of dangerous goods. These are expressed in the international agreements that are associated with the UN recommendation. Even though the UN Recommendation is not mandatory, it is a worldwide accepted one. In addition to this, national laws govern the transport of dangerous goods across the world.

(6.2) INDIAN LAW RELATING TO CARRIAGE OF DANGEROUS GOODS BY SEA.

(6.2.1) The Indian Carriage Of Goods By Sea Act.1925.

This Act came into force in 1925 to establish responsibilities and liabilities and rights and immunities available to the carriers under the bill of lading. This Act applies to ships carrying goods from any port in India to another port, whether inside or outside India.

This law limits people to export or import illegal goods. The quality of goods has been check at every step. The carrier will not be liable for the poor quality of the goods before consignment.

The liabilities of carrier and ship under this law is fault-based. But there are exceptions like the Act of God, war etc., the carrier or ship will not be liable if the fault is on his servant or management. The burden of proof is on the claimant of the exception. The carrier or ship will be responsible for the breach of contract of carriage except for saving life or property or reasonable deviation²⁰⁶.

Article IV (6) of this Act deals with the carriage of dangerous goods. According to this provision, goods of a combustible, hazardous and explosive to the shipment of which the carrier, master and the carrier's agent, has not consented, with knowledge be landed at any place or rendered innocuous or destroyed by the carrier without compensation, the

²⁰⁶ Ibid

shipper of such goods shall be responsible for all damages and expenses directly or indirectly arising out of or resulting from such shipment²⁰⁷. Suppose any goods shipped with such knowledge and consent shall become a danger to this ship or cargo. In that case, they may in like manner be landed at any place or destroyed or rendered safe by the carrier without liability on the part of the carrier except to general average, if any²⁰⁸.

(6.2.2) Merchant Shipping Act,1958

Section 331(6) of this Act shall apply to both the Indian ships and other ships in any port in India or loading or discharging cargo or fuel, embarking or disembarking passengers within the jurisdiction of India²⁰⁹.

According to this Section, the expression " dangerous goods" means the goods by their nature or quantity or mode of stowage is hazardous to any person's life or health on or near the ship. It includes any substance defined as explosive in the Explosives Act 1884 and the substances which the central government notifies as dangerous goods²¹⁰.

Any distress signal or fog, or other types of equipment or stores required to be carried by ship does not come under the definition of dangerous goods. Also, particular cargo specially converted or built as a whole for that purpose carried in the vessel such as tanker is not hazardous goods²¹¹.

The ship's owner, master, or agent shall furnish the particulars prescribed in advance if they are carrying or intend to carry dangerous goods as cargo and about to make the voyage from an Indian port²¹². The surveyor shall inspect the ship to ensure that all the rules prescribed under this Act have complied with²¹³. If not, then the vessel shall be deemed to be an unsafe ship for that purpose²¹⁴.

²⁰⁷ See Article IV(6)

²⁰⁸ Ibid

²⁰⁹. see section 331(6) of the merchant shipping Act. 1958

²¹⁰ ibid

²¹¹ ibid

²¹²see Section 331(3) of Merchant Shipping Act. 1958.

²¹³. see Section 331(4) of Merchant Shipping Act. 1958.

²¹⁴ see section 331(6) of the merchant shipping Act. 1958

(6.2.3)Merchant Shipping (Carriage of Cargo) RULES, 1991.

According to this Rule, dangerous cargo includes dangerous goods in packed form a. explosives under the Explosive Act 1884 and the listed items in the IMDG Code, which are endangered to the health and life of the person on board or near the ship²¹⁵. Dangerous goods mean dangerous cargo carried in solid or packed form and harmful pollutants to the marine environment under the IMDG Code²¹⁶.

Part III of these rules deal with dangerous goods in packed form, solid bulk cargo and deck cargos. Every ship carrying dangerous goods in filled form should have complied with requirements provided under IMDG Code²¹⁷. The hazardous goods shall be packaged correctly in good condition²¹⁸ and correctly labelled and marked to clarify the destructive properties of the cargo²¹⁹. Dangerous goods, explosives except for ammonium and harmful substances classified as marine pollutants shall be properly stowed²²⁰.

Master or agent who contravenes the provisions regarding the carriage of dangerous goods shall be penalised with imprisonment, which may prolong to two years and or with a fine. It may extend to ten thousand rupees or with both, and if the offence continues further, fifty rupees for every day after the infringement²²¹. Every owner, master and agent who to one thousand rupees and further fifty rupees has to pay if the offence continues²²².

²¹⁵ . see Section 2 (j) of the M.S rules 1991.

²¹⁶ . see Section 2 (k) of the M.S rules 1991.

²¹⁷ See Section 9 of the M.S Rules, 1991

²¹⁸ see section 11(1) of the M.S Rules, 1991

²¹⁹ See Section 11(5)) of the M.S Rules, 1991

²²⁰ Section 12(1), (2) and (6)) of the M.S Rules, 1991

²²¹ See Section 23(a)) of the M.S Rules, 1991

²²² See Section 23(b)) of the M.S Rules, 1991

(6.3) INTERNATIONAL CONVENTIONS RATIFIED BY INDIA.

(6.3.1) IMDG CODE

The main objective of the IMDG Code is to enhance the safe carriage of dangerous goods. This code requires the shipper, agents, packers etc., to deal with the safe carriage of hazardous goods from the manufacturer's premises to the receiver's premises²²³. The existing Merchant Shipping (cargo) rules 1991 are revised to cover the gap under the new IMDG Code. Under these circumstances, all the stakeholders are bound to follow the provisions of the merchant shipping act, 1958 and merchant shipping rules,1991. The new IMDG Code, which came into force on January 1, 2010, includes nine dangerous goods forms on the packed form.

(6.3.2) SOLAS CONVENTION

India is a party to SOLAS Convention 1974 as amended. Under this Convention, the provisions relating to the carriage of dangerous goods by sea have been incorporated into the Merchant Shipping Act 1958 in Section 331 and under the M.S (carriage of cargo) 1991 rules. These provisions are inserted according to the conditions under chapter vii of the SOLAS Convention. These provisions discuss the requirement to load, handle and stow the dangerous goods in the packed form²²⁴.

(6.3.3) MARPOL CONVENTION.

²²³ see M.S Notice no 06 of 2010, accessed on 1st October, 2021

²²⁴ see M.S Notice no 06 of 2010, accessed on 1st October, 2021

India has ratified the MARPOL Convention. It has six annexes for the prevention of pollution by oil, pollution control by noxious liquid substances in bulk, hindrance of pollution by harmful substances carried by sea in packed form, prevention of pollution by garbage from vessels and prevention of air pollution from ships. India ratifies all these six annexes²²⁵.

(6.3.4) UN RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS

This recommendation is not mandatory or legally binding on individual countries, but it has been widely accepted internationally. All modes of transport of dangerous goods except by bulk tanker have covered under this recommendation. The dangerous goods may be pure chemical substances, mixtures, or manufactured articles. The manufacture, use, or disposal of hazardous goods are not covered under this UN Recommendation.

This recommendation classified ammonium nitrate as an oxidising agent, and it is hazardous. In India, ammonium nitrate is listed as an explosive under the Explosive Act, 1884²²⁶.

(6.4) Concluding Remarks.

In this chapter, we focused on the Indian laws that deal with the carriage of dangerous goods like the Indian Carriage Of Goods By Sea Act, 1925, the Merchant Shipping Act 1958 and the Merchant Shipping (Carriage) Cargo) Rules, 1991. This chapter discussed, the International Conventions Government of India ratified for the safe carriage of dangerous goods by seas, such as the IMDG Code, SOLAS, MARPOL, and UN

²²⁵ . <https://pib.gov.in> >PressReleasePage, preventive steps taken to check marine pollution, posted on 25 July 2019 by PIB Delhi

²²⁶ [HTTPS:// www.cogoport.com](https://www.cogoport.com) accessed on 1st October 2021

Recommendations on Transport of Dangerous goods. Liability of the parties will discuss in the next chapter.

Chapter-7

Issues with the Liability of the Carrier and Shipper

(7.1) Introduction

(7.2) Unlimited Liability of the Shipper

(7.3) Insufficiency of Dangerous Goods Regulation.

(7.4) Identity of the Shipper: Charter or Physical Shipper.

(7.5) Concluding Remarks

(7.1) Introduction

The carriage of dangerous goods by sea introduces inherent and possible danger. So, each person involved in the carriage has some responsibilities. Especially shipper and the

carrier are responsible for the threat caused by the dangerous goods. Many regulations are introduced to deal with the liabilities of both carrier and the shipper. But these liabilities have some problems. These issues with the liabilities of the carrier and the shipper are going to discuss in this chapter.

(7.2) Unlimited Liability of the Shipper

The liability of the carrier for damage to or loss of goods and the delay is limited. In contrast to this, the shipper's liability is unlimited. It is known for hazardous goods to have led to the cargo and ship's total or constructive loss²²⁷. Similar consequences may occur if the stowage is unsafe. If the bill of lading forces safe-port responsibilities on the shipper by expressly or incorporation, the possible liabilities can again be extensive. The monetary limits are only applicable for protecting the vessel. Open-ended obligations the shipper might invite call in defence for the limitation of liability for damage to or loss of or delay of cargos.

Though it might be contented, in the same way reasonably, that the shipper could quash limitation of liability by affirming the cargo's nature and value, the same could not be said about delay where the limit is also applied in cases of delay.

Furthermore, it is stimulating to note that the carrier failed to implement his duty to provide a seaworthy vessel and care with cargos at the beginning of the journey. He still can enjoy the benefit of limitation of liability under Art IV.5 of Hague-Visby Rules. Still, when the other cargos destroy the good, the shipper of the destroying goods, whether hazardous or not, is liable, is not in a position to claim limitation of liability.

(7.3) Insufficiency of Dangerous Goods Regulation.

²²⁷ In In Re M/V DG Harmony calcium-hypocrite hydrated caused fire lasted three weeks. As a result the US \$ 16 million vessel was declared a constructive total loss and virtually all her cargo was destroyed.

The shipper will not be deemed to have come across all the responsibilities to the carrier when he has complied with dangerous goods. Providing some warnings about the risk and labelling of cargo cannot be assessed in a vacuum. It can be evaluated by the proficiency and acquaintance of the ship's master, the carrier and the other relevant people²²⁸.

The IMDG Code and other relevant codes arrange for the lists for the hazardous cargo. Still, these lists are narrow. Certain load is listed by its properties, not by its name²²⁹.

²²⁸ In *Ionmar Compania Naviera S.A. v. Olin Corp.* 666 F.2d 897, 1982 A.M.C. 1489, the

defendant Olin shipped steel drums of pool chlorine by vessel. Chlorine, a highly flammable substance, is subject to extensive regulation by the HMR. Olin met those requirements, including properly marking and labeling the chlorine drums, packing chlorine in approved steel drums and providing a written description of the chlorine's characteristics to the shipowner. The shipowner duly noted the presence of the chlorine on his required hazardous cargo manifest. Nonetheless, when a fire erupted in the area where the chlorine was stored, causing substantial damage to the vessel and other cargo, the shipowner sued Olin for failure to properly warn him of all dangers of chlorine. An investigation determined that a reaction between the chlorine and sawdust left in the area by longshoremen caused the fire. The District Court found that, despite its compliance with the HMR, Olin was 85% responsible for the damage due to its negligence in failing to give the stevedore adequate warning about the specific propensity of chlorine to ignite when in the presence of sawdust or other fine, organic material. The stevedore was assigned the other 15% of liability. Olin appealed. The Fifth Circuit reversed and remanded the case, concluding that the District Court failed to make the necessary findings with respect to critical issues, including whether Olin properly warned the carrier. The Fifth Circuit provided the District Court with the following guidance on the "sufficiency of warning" issue: "Olin as the manufacturer of the chlorine had a duty to warn the stevedore and the shipowner of the foreseeable hazards inherent in the HTH shipment of which the stevedore and the ship's master could not reasonably have been expected to be aware. The Appellate court agreed that Olin had complied with the HMR by placing cautionary yellow labels on each drum and making the required statements on the bills of lading describing the chlorine as an oxidizing agent (highly flammable). While these steps gave the stevedore and shipowner some warning about the dangers associated with HTH, the Court concluded that this was not necessarily enough. Based on its conclusion that the findings do not indicate what the stevedore knew or should have known about stowing this particular cargo, it directed the District Court to inquire as to "what knowledge, aside from that disclosed by the labels and the bill of lading, the vessel actually had about the cargo prior to its stowage. In respect to *Ionmar*, compliance with the HMR regulations does not mean as a matter of law that shippers have met their entire pre-shipment duties to carriers, especially if their cargo has dangerous characteristics with potentially serious consequences that are not likely foreseeable by the carriers. See also *Borgships, Inc. v. Olin Chemicals Group* 1997 U.S. Dist. LEXIS 3065 (S.D.N.Y. 1997), where, although the cargo of SDIC was exclusively excluded from the list of HMR, the court, following *Ionmar*, concluded that compliance with Department of Transport (DOT) regulations does not satisfy as a matter of law the shipper's duty to warn.

²²⁹ Some cases illustrate very well how improper consultation of the IMDG Code may cause a disaster. In the *Asian Gem* the vessel contracted to carry some low-grade powdered zinc dross from Long Beach to Japan, where at the time they were less

careful about pollution when smelting low-grade zinc ores. The ship asked whether the material was dangerous and was told: "It is not in the IMDG Code". This was a bulk cargo and was transported to the ship in trucks and loaded. The ship was told to keep the material dry, despite it having been stored outside

Hence the shipper is not discharged from his liability to provide notice by saying that particular good is not on the list of dangerous goods²³⁰. It is unlucky that the new cargo has provided UN Number and entry to the IMDG Code and Orange Book if an incident of the accident occurred²³¹. Furthermore, there might be cases where guidelines provided by IMDG Code are not enough²³².

(7.4) Identity of the Shipper: Charter or Physical Shipper.

Shipper, carrier and consignee are mainly involved in the carriage of hazardous goods by sea. According to Hague-Visby Rule, the carrier includes the charterer or ship owner entered into the contract with the shipper²³³. This Rule does not define shippers. Still,

for up to two years and despite the trucks having been sprayed with water to reduce dusting problems. When the ship sailed, the diligent crew began to apply Ram-neck bitumen tape to the hatch covers to keep water out, but it was cold, so the seaman doing the work used a paraffin blow lamp to heat the tape and metal to get good adhesion. The inevitable happened. There was an explosion, the hatch covers were blown up and one removed the head of the unfortunate seamen. Investigations revealed that it was not a self-heating problem like direct reduced iron or iron scrap but was simply a low-temperature reaction between zinc, dust and water producing hydrogen gas which continued to burn on the surface of the stowage. Despite the knowledge of the shipper that it produced hydrogen, he decided to say “It is not listed in the IMDG Code”. While at the time zinc dross and zinc ashes were not specifically listed in the IMDG Code, it was effectively present as a Class 4.3 “water reactive substance N.O.S” or “not otherwise specified” material. Therefore, the shipper should know that there are often NOS catch-all categories in the IMDG Code. Following the incident, zinc ash was specifically incorporated into the codes as a hazardous material generating flammable gas when wet. Watt/Burgoyne, “Know Your Cargo” [1999] 13(5) *P&I Int’l* 102

²³⁰ *Senator Linie GmbH v. Sunway Line* 291 F.3d. 145.

²³¹ Compton, “Dangerous Goods” 2004 (January) *Cargo Systems*, 34, 35.

²³² “New IMDG Code ‘dangerous’ says club”, 2000 (14 December) *Fairplay* 7; *In re M/V Harmony and Consolidated Cases*, 393 F.Supp.2d 649. In that case the M/V Harmony stowed the containers in accordance with the IMDG Code. Neither the manufacturer/ shipper nor the carrier knew the true risks and dangers of storing and shipping this chemical in the manner utilized by the shipper. Testing subsequent to the accident revealed that the chemicals should have been stored at a lower temperature than provided for by the IMDG Code.

²³³ The Rules do not really distinguish between the legal or physical shipper but the assumption of the Rules seems to be that a shipper must have a contractual relationship with the carrier. The *Pyrene v. Scindia* [1954] 2 Q.B. 402, involved a physical shipper who did not make the contract of carriage and would not have been named as shipper in the bill. The court created an implied contractual relationship

from the carrier's definition, the shipper could be the person who concluded a contract with the carrier²³⁴. In the charter party contract, there will be carrier, consignee and charter. Charter might also be the shipper depending on the legal system. The charter will be the physical shipper if he loads the goods himself or is liable for handing over the dangerous cargo to the shipowner. Under these circumstances, he will have the liabilities of the shipper under Art IV.6 and at the common law. Still, so long as the identification of the actual shipper is possible, the shipper should be liable rather than the charterer.

There are so many reasons for the necessity to classify the shipper²³⁵. There will be significant difficulties to find out who is the shipper in the eye of law. As a matter of standard, it would be quite reasonable to have a comprehensive definition of shipper for the purposes of dangerous goods obligations while requiring positive evidence that a person agreed to be bound to a contract of carriage by allowing his name to be entered as "shipper" in the bill. The mere fact that a person's name seems in a bill does not mean that he is a party to a contract of carriage with a carrier, although that will be the normal inference²³⁶. The purpose of filling the shipper box in the bill of lading is to identify the person who physically delivers the cargo to the vessel for shipping. This person might be FOB if the charterer entered into the contract of carriage with the shipper. So, if the party agrees to be named as the shipper, he might be aware that he might accept the liabilities of the shipper (e.g., freight). So, it is necessary to distinguish the circumstances where the law seeks to identify a person who is physically shipping goods and those where a person is held to be a party to the carriage contract in a bill of lading.

between the carrier and the physical shipper, mainly as a mechanism to apply the Hague Rules regime to that shipper, e.g. in an action in tort. It was acknowledged that the physical shipper could not be sued for the freight. Does it follow that it could also not have been liable for shipping dangerous goods? It is to be noted that this case concerned a claim by the shipper against the carrier while the position in the dangerous goods scenario is the reverse.

²³⁴ Gaskell, "Charterer's Liability to Shipowner, Orders, Indemnities and Vessel Damage", in Schelin (ed.) *Modern Law of Charterparties* (2003), 57.

²³⁵ For instance, to find out who is the shipper liable for the carriage of dangerous goods, or who is the shipper liable for freight under the contract evidenced by the bill of lading.

²³⁶ Gaskell/Asariotis/Baatz, *Bills of Lading: Law and Contracts* (2000), 42 f.

(7.5)Concluding Remarks

In this chapter, we discussed the problems with liability. The shipper has unlimited liability where he cannot claim an exception for liability, but the same is available to the carrier. The regulations and codes are not sufficiently listed the hazardous cargo. So, this will affect the liability of the shipper and the carrier. The physical shipper and the actual shipper is not properly distinguished. Therefore, it will be difficult to understand who has basic liability.

CHAPTER-8

CONCLUSION

In this paper, an effort has been made to handle the topic, which was challenging then. The carriage of dangerous goods by sea is crucial due to its effect on safety and environmental issues. These aspects of carriage of hazardous goods are essential irrespective of preventive measures, and precautionary measures are taken, the accidents are inevitable. Not only should the safety and environmental issues be considered important, but there are also implications of private law that we cannot ignore because these implications include the legal relationship on the topic of liabilities and responsibilities between the carrier and shipper of the goods. Both the private and public law have implications for international and domestic regimes, and in this case, it is the national regime in India.

This dissertation has been done in three substantive parts. The first part looks at international regimes, i.e. convention instruments. The second part deals with the national rules in India. The third part deals with the issues with the liabilities of the parties on the carriage of dangerous goods by sea.

Regarding the international regime on the carriage of dangerous goods by sea, there are IMDG Code, SOLAS and MARPOL convention. These are created by IMO. The Basel Convention was created by UNEP. UN Recommendation on Transportation of Dangerous Goods is also an important convention that is not legally binding but universally accepted.

Regarding the contractual obligation of the parties, it arises from the interrelationship between the shipper and carrier from the contract of the bill of lading. But it does not apply to the charter party contract.

Third-party liability is also vital as contractual liability. This liability arises when there is ship source pollution, or when there is a carriage of hazardous and toxic substances or when there is nuclear damage.

The fault-based, strict and absolute liability is the tortious liability involved in carriage dangerous goods by sea.

Unlimited liability, insufficiency in dangerous goods regulation, and shipper identification are the main issues related to the parties to carriage hazardous goods by sea.

Regarding the Indian laws, there are only a few laws dealing with the carriage of dangerous goods by sea. The Indian carriage of goods by sea Act, 1925, the merchant shipping Act, 1958 and merchant shipping (carriage of cargo) Rules 1991 are the Indian laws on the carriage of dangerous goods by sea.

From this study, I understand a lack of clarity and inadequacies in both the international and national regimes.

For the effective carriage of dangerous goods, the HNS Convention should enter into force, and the state should ratify the convention. This convention is beneficial to all the state parties as it provides a strict liability system and definite claim criteria.

In my opinion, the IMDG Code and other relevant codes should specify the name of dangerous goods rather than providing the properties in the list so everyone can understand what is harmful and what is not.

Concerning Indian laws on the carriage of dangerous goods by sea, even though it ratified all the relevant conventions, it does not have specific legislation dealing with the carriage of dangerous goods by sea. India should enact laws that specifically deal with the carriage of dangerous goods by sea.

BIBLIOGRAPHY

CONVENTIONS AND TREATIES

- Paris Convention in the Field of Nuclear on Third Party Liability in the Field of Nuclear Energy, 1960
- Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971
- UN Treaty Series Vol. 1963, Nr 1-16197, p. 263
- International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969
- Rotterdam Rules, 2009
- The International Convention for the Unification of Certain Rules Relating to Bills of Lading, 1924
- The Hamburg Rules., 1978
- The Hague-Visby Rules, 1979
- Convention on Liability of Operators of Nuclear Ships.
- UN, Recommendations on the Transport of Dangerous Goods, 1956
- MARPOL Convention, 1973
- Basel Convention, 1992
- The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009
- International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996

STATUTES AND LEGISLATIONS

- The Merchant Shipping Act. 1958
- Carriage of Goods by Sea Act, 1925

BOOKS

- Gaskell/Asariotis/Baatz, *Bills of Lading: Law and Contracts* (2000),
- Gaskell, "Charterer's Liability to Shipowner, Orders, Indemnities and Vessel Damage", in Schelin (ed.) *Modern Law of Charterparties* (2003)
- Schoenbaum, *Admiralty and Maritime Law* (2004) Vol. 1
- Colinvaux, *Carver Carriage by Sea* (1982) Vol. 1 180, 378

- Wilson, John F. *Carriage of Goods by Sea*. (Essex, 6th edn, Pearson Education, 2008.)
- Güner-Özbek, Meltem Deniz. *Hamburg Studies on Maritime Affairs : The Carriage of Dangerous Goods by Sea*. (Berlin, Heidelberg, DE: Springer, 2007);

ARTICLES

- Goldie, "International Principles of Responsibility for Pollution", *Colum. J. Transnat'l L.* 1970, 311
- *American Journal of International Law* 1963, 268
- McRae, Ben. "The Compensation Convention: Path to a Global Regime for Dealing with Legal Liability and Compensation for Nuclear Damage." (1998)
- Boyle, Alan E. "Globalising environmental liability: the interplay of national and international law." *Journal of Environmental Law* 17.1 (2005): 3-26.
- .Goransson, Magnus. "HNS Convention." *Univ. L. Rev.* ns 2 (1997): 249
- See Edgar Gold, "Pollution of the Seas and International Law", *J. Mar Law & Com*, (1971) Vol.3(1)
- B. Soyer, "Ship-sourced oil pollution and pure economic loss: The quest for overarching principles", (2009)
- Gauci, Gotthard Mark. "The Problem of Pure Economic Loss in the Law Relating to Ship-Source Oil pollution Damage."
- Zhu, Ling, and Ya Chao Zhao. "A feasibility Assessment of the Application of the Polluter-Pays Principle to Ship-source Pollution in Hong Kong." *Marine Policy* 57 (2015)
- Tan, Alan Khee-Jin. *Vessel-source Marine Pollution: the law and Politics of International regulation*. (Vol. 45. Cambridge University Press, 2005)
- Hartje, Volkmar J. "Oil pollution Caused by Tanker Accidents: Liability versus Regulation." (1984)
- AFM de Bievre, Aline FM. "Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea." (1986) 17 *J. Mar. L. & Com.* 61.

- Yvonne Baatz, et. al. , *The Rotterdam Rules: A Practical Annotation*, (London: Informa, 2009),
- Bovio, David Moran. “Ocean Carriers' Duty of Care to Cargo in Port: The Rotterdam Rules of 2009.”
- Epstein, Richard A. “A theory of strict liability.” (1973)
- Fujita, Tomotaka. “Shipper's Obligations and Liabilities under the Rotterdam Rules.” *University of Tokyo Journal of Law and Politics* 8 (2011)
- Bal, Abhinayan Basu. “An Evaluation of the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (Rotterdam Rules) through Critical Analysis
- Karan, Hakan. “Any Need for a New International Instrument on the Carriage of Goods by Sea:The Rotterdam Rules.” *J. Mar. L. & Com.*
- Harris,Donald, David Campbell and Roger Halson. *Remedies in Contract and Tort*
- Konz, Peider. "The 1962 Brussels Convention ." (1963)
- Kiss, Alexandre, and Dinah Shelton. "Strict liability in International Environmental Law."
- Peet, Gerard. “MARPOL Convention: Implementation and Effectiveness, “ (1992)
- Becker, Rebecca. “MARPOL 73/78: An Overview in International Environmental Enforcement.” (1997)
- Henry, Cleopatra Elmira. *The Carriage of Dangerous Goods by Sea: the Role of the International Maritime Organization in International Legislation*. (Pinter, 1985).
- Kummer, Katharina. “The international regulation of transboundary traffic in hazardous wastes: The 1989 Basel Convention.” (1992)
- Hackett, David P. “Assessment of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.” (1989)
- Louise Angelique de La Fayette. “The International and European Community Law Applicable to the *Probo Koala* Affair” (unpublished) London: October 2008
- Chambliss, William J. “Types of Deviance and the Effectiveness of Legal Sanctions.” (1967)*Wis. L. Rev*, 703

APPENDIX

CERTIFICATE ON

PLAGIARISM CHECK

1.	Name of the Candidate	
2.	Title of the Thesis/ Dissertation	
3.	Name of the Supervisor	
4.	Similar content (%) identified	
5.	Acceptable maximum limit (%)	
6.	Software used	
7.	Date of verification	

Checked By (with name, designation &signature) :

Name and Signature of the Candidate :

Name & Signature of the Supervisor :

