

REPUBLIC OF TURKEY
ANKARA UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF MARITIME TRANSPORTATION
LAW AND POLITICS

**LIABILITY FOR DANGEROUS GOODS: PROTOCOL OF 2010 TO THE
INTERNATIONAL CONVENTION ON LIABILITY AND COMPENSATION FOR
DAMAGE IN CONNECTION WITH THE CARRIAGE OF HAZARDOUS AND
NOXIOUS SUBSTANCES BY SEA, 1996**

Master's Thesis

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Ankara, 2022

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REPUBLIC OF TURKEY
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I state that all the information in my master's thesis titled “Liability For Dangerous Goods: Protocol Of 2010 To The International Convention on Liability and Compensation For Damage In Connection With The Carriage of Hazardous and Noxious Substances By Sea, 1996” (2022, Ankara), which I prepared under the supervision of Prof. İsmail DEMİR, was collected and presented in accordance with academic rules and ethical behavior principles, I fully indicated the information I received from other sources in the text and in the bibliography, I declare that I have acted in accordance with the ethical rules, and I will accept any legal consequences in case the contrary arises.

Date: 08/02/2022

MD SYFUL ISLAM

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ABBREVIATIONS

CLC	: International Convention on Civil Liability for Oil Pollution Damage
CMI	: Committee Maritime International
EEZ	: Exclusive Economic Zone
HNS	: Hazardous and Noxious Substances
HS	: High Seas
IGPIC	: International Group of P&I Club
IMDG	: International Maritime Dangerous Goods
IMO	: International Maritime Organization
IOPC	: International Oil Pollution Compensation Fund
LEG	: Legal
LNG	: Liquefied Natural Gas
LPG	: Liquefied Petroleum Gas
MARPOL 73/78	: International Convention on Prevention of Maritime Pollution by Ships, 1978
P&I	: Protection and Indemnity
SOLAS	: International Convention for Safety of Life at Sea, 1974
TS	: Territorial Sea

INTRODUCTION TO RESEARCH

It is arguably an oversimplification to suggest that shipping by the ocean is hazardous. Without a doubt, although there are countless different hazardous activities, including particular transportation in the flight and mining on the earth underneath the land. Nevertheless, the marine section is the ancient of all modes of transport. Other activities at sea, such as the functioning of offshore installations for exploration activities and processing, are also tricky in the current climate.

Hazardous commodities might include everything from explosive cargo like oil and natural gas to extremely rapid substances. Other types of freight are held on rollers in various dangerous forms, such as grain species and coal, newspaper, or recycled paper. These matters are regulated by the application of different The International Maritime Organization (IMO) codes designed to prevent or mitigate the dangerous nature of the cargo from causing hazardous conditions¹.

The worldwide economic development has increased the tendency of shipping dangerous materials by the ocean, perhaps as containers or anything else. The International Maritime Organization (IMO) reports that over 50% of commodities ocean freight are hazardous goods².

The International Maritime Organization (IMO) initiated this critical the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (the 1996 HNS Convention) in light of these considerations. This convention's principal objective was to establish accountability and compensation for catastrophic incidents and promote maritime safety and pollution

¹ Pawlow, Jonathan R. Liability for Shipments by the Sea of Hazardous and Noxious Substances, Law and Policy in International Business, 1985. vol. 17. s. 455. vd

² L. Bergkamp, Liability and Environment: Private and Public law Aspects of Civil Liability for Environmental Harm in an International Context (Martinus Nijhoff Publishers 2001) at pp. 35-36.

prevention. This convention functions by basing the transportation of hazardous goods in addition to oil. A protocol called the 2010 Protocol was created to update this convention.

Consequently, with the increase in risky and hazardous goods at sea, it has become critical to ensure the safety of ships and their crews. Additionally, it has become necessary to discuss who would pay compensation following the accident. The maritime world began to pay more attention to the content of harmful goods shipped by sea, resulting in significant harm to the marine environment and caused by various dangerous, hazardous, and noxious cargo other than oil³.

Even though the 1996 HNS Convention has been in force for 24 years, it has not been implemented due to insufficient ratification. Look back to April 2002, when the IMO Legal Committee reviewed the convention and remodeled it in 2010. At this point, we have to learn about this IMO Legal Committee; The Legal Committee is empowered to deal with any legal matters within the scope of the Organization. The Committee consists of all Member States of The International Maritime Organization (IMO). It was established in 1967 as a subsidiary body to deal with legal questions which arose in the aftermath of the Torrey Canyon disaster. The Legal Committee is also empowered to perform any duties within its scope which may be assigned by or under any other international instrument and accepted by the Organization⁴. An international conference held in 2010 adopted a Protocol to the 1996 HNS Convention aimed at solving the practical problems preventing the Convention from being signed by several Nations. Along with the 2010 HNS Protocol, the 1996 HNS Convention. Subsequently, in compliance with Resolution 4 of the Meeting, another summary was prepared to call for a review of the original text, considering the changes made in the 2010 Protocol⁵.

³ Wetterstein, Peter. Carriage of Hazardous Cargoes by Sea -The HNS Convention. (1996) 26 Ga. J. Int'l & Comp. L.595.

⁴ See www.imo.org/en/OurWork/Legal/Pages/LegalCommittee.aspx accessed 23 December 2021

⁵ See Brief History of IMO <www.imo.org/en/About/HistoryOfIMO/Pages/Default.aspx> accessed 25 December 2020; 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.

In 1996, a convention was finally introduced in the manner mentioned earlier. The shipowner's definition is extended to include the registered shipowner and agent, operator, and despondent owner in the 1996 HNS Convention⁶. Under the strict liability regime structured in the same way as in the International Convention on Civil Liability for Oil Pollution Damage 1969, each of them can be liable. The shipowner of a ship carrying Hazardous and Noxious Substances is therefore subject to strict liability and is liable, irrespective of fault, to pay damages or compensation to Hazardous and Noxious Substances damage victims. All that is required to strict liability is evidence of damage⁷.

The main thing we will focus on is compensation for accidents. A fund was set up under the convention to make up for this loss. But there is no separate convention called the Fund Convention. As like the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992. But it has the International Hazardous and Noxious Substances Fund (HNS Fund), which is similar to the International Oil Pollution Compensation Funds⁸, this IOPC Fund also work for the 1996 HNS Convention. The shipowner's liability is limited. Where claims surpass the shipowner's liability, the HNS Fund is enabled subject to certain conditions. Just as in the 1969 CLC, there is a compulsory insurance provision. These are among the 1996 HNS Convention's very significant features. The term Hazardous and Noxious Substance is generally and comprehensively defined as packaged goods, bulk solids, liquids, liquefied gases, including

⁶ *ibid.* p. 2

⁷ See Convention International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996, including the final act of the International Conference on Hazardous and Noxious Substances and Limitation of Liability, 1996, and resolutions of the conference, London International Maritime Organization 1997, pp. 54 -57.

⁸ The IOPC Funds are two intergovernmental organizations (the 1992 Fund and the Supplementary Fund) which provide compensation for oil pollution damage resulting from spills of persistent oil from tankers. The IOPC Funds have been involved in 150 incidents since 1978 and have paid some £600 million in compensation. The 1992 Fund has 114 Member States, 31 of those are also Supplementary Fund Member States.

The International Oil Pollution Compensation Funds (IOPC Funds) provide financial compensation for oil pollution damage that occurs in Member States, resulting from spills of persistent oil from tankers. The IOPC Funds are financed by contributions paid by entities that receive certain types of oil by sea transport. These contributions are based on the amount of oil received in the relevant calendar year, and cover expected claims, together with the costs of administering the Funds. The framework for the regime was the 1969 International Convention on Civil Liability for Oil Pollution Damage (1969 Civil Liability Convention) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution (1971 Fund Convention).

Liquefied natural gas (LNG) and Liquefied petroleum gas (LPG)⁹. The expanded description appears in the 1996 HNS Convention by reference to lists of substances found in various International Maritime Organization (IMO) instruments dealing with marine protection and pollution prevention, in particular, the International Maritime Dangerous Goods Code (IMDG), 1965 and International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)¹⁰.

It must bring on some compounds covered by the 1996 HNS Convention board, but the convention does not cover radioactive isotopes. The 1996 HNS Convention applies only for certain substances carried on or found onboard as residual cargo from a previous voyage but does not apply to radioactive materials¹¹. The 1996 HNS Convention provides for the two-tier systems in which the fee owed by the registered owner under the first tier and the second tier, comprising the HNS Fund funded by the shipping industry, is eligible for the payment of claims outside the limits of the registered shipowner's liability¹².

The International Hazardous and Noxious Substances Fund (HNS Fund) consists of an account for oil and LNG, an account for LPG, and general purposes¹³. As a result of the following discussion, it can be stated that the 1996 HNS Convention is an essential factor of private international law governing hazardous goods.

⁹ See Article 1 (5) the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996. We'll discuss about the meaning of 'Hazardous and noxious substances' (HNS) at p. 28 of this thesis.

¹⁰ Rengifo, Antonio. The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances at Sea, 1996. (1997) 6 LEVEL 2. pp. 191-197.

¹¹ *ibid.* p. 3

¹² See Article 7 the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

¹³ See Article 16 in General provisions on contributions of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

A) SUBJECT MATTER, AIM AND QUESTIONS: -

Invariably, the discussions are based on the applicable international agreements dealing with encumbrance and limitation of responsibility issues relating to oil-related pollution, dangerous substances (HNS), and in that order, third-party property damage. This is the main reasons for the necessity of formation 2010 HNS Protocol to the 1996 HNS Convention, namely the 2010 HNS Convention, will be analyzed in-depth, as will the unique aspects of the 2010 Protocol that have emerged.

The study aims to achieve the following goals by discussing this research work:

- Identify the need for the 1996 HNS Convention and the reasons why a new Protocol is needed.
- Identify the scope and limitation of hazardous and noxious substance liability.
- To discover the latest dimensions of the 2010 HNS Protocol.
- 2010 HNS's contribution to international maritime pollution compensation regime.
- May the 2010 Protocol come into force near future?
- How does the 2010 Protocol to the 1996 Convention enhance the current legal framework for maritime accident liability concerning dangerous goods?

B) SCOPE AND STRUCTURE: -

The discussion about the 1996 HNS Convention and its context is necessary to assess the 2010 Protocol. After providing a brief explanation of why the international community desired the 1996 HNS Convention, the first portion of this research will describe how the Convention came to be drafted and the process by which it was written.

A detailed analysis of the basic components of the Convention, in general, is included in the next chapter. This debate is necessary in order to have a firm grasp of the working and logic of the adoption of the 2010 Protocol to the 1996 HNS Convention, which will be discussed in the last chapter. The final chapter will address the rationale for introducing a new Protocol to the 1996 Convention.

This research will analyze the cause of the entry into force challenges of the initial 1996 HNS Convention; are these problems due to procedural rules, such as the reporting problem, or more to substantive rules, such as the two-tier system? More specifically, are these questions concerning substantive or procedural rules addressed by the 2010 Protocol? The new functionality implemented by the 2010 Protocol will be evaluated¹⁴. The conclusion will eventually summarize this research's key findings.

C) APPROACH AND METHODOLOGY: -

The thesis analyzes hard law sources, such as treaties, international agreements, conventions, and protocols. Material and data sources are analyses from the library, electronic journals, conference papers, visits to the International Maritime Organization (IMO) and other related websites, etc. This Convention is not yet enforced. For this reason,

¹⁴ All of those factors discuss in the later part of this thesis.

not much more data and materials on Hazardous and Noxious Substances (HNS) available, therefore. Due to shipowners' problems, flag states, and other matters, there are several difficulties in implementing the 1996 HNS Convention. Discussion on the issues arose with introducing the 1996 HNS Convention and the most current amendment to the 2010 HNS Protocol to speed up the entry into force of the 1996 HNS Convention¹⁵.

This thesis works bibliographic analysis, literature review and incorporates both ordinary and secondary sources. In this study, qualitative methods were used.

1. **Data Analysis:** I evaluated data through my thought and analyzes. I collected data using traditional analytical methods, including assembling primary and secondary data sources, and then reviewing, analyzing, and summing up the documentation carefully.
2. **Data Collection Tools:** Gathering data is an integral part of any research work. Any analysis cannot be done satisfactorily before and unless the data are generated appropriately. Even for this analysis, data were gathered using different techniques. The sources consulted have been very diverse. For example, original conventions collected from International Maritime Organization were primary sources. Many foreign agencies and organizations, and some national agencies to the subject matter to be listed, were also seeking policy documents. The secondary data were taken from various published and unpublished books, papers, online documents, and publications mentioned in the bibliography, in addition to the actual response. During this investigation time, no interview was held.
3. **Data processing:** The data and information obtained were proceed manually by the researcher himself in the three-way table and the tabulation. Upon classification and modification, another significant work for achieving the thesis's objectives is data analysis and presentation of various statistical instruments used for data analysis, such

¹⁵ GUNER-OZBEK, M., The carriage of dangerous goods by sea, 2008, p 44.

as the average and applied method of definition to qualitative results. The research is processed via Microsoft Word and Excel.

My approach to this research has also been reinforced by some relevant training courses, such as the Sea and Maritime Law Research Center, which has strengthened and broadened my understanding of the Law of the Sea issues encompassing the aspects of the marine pollution and liability thus supported in the general research approach.

D) LIMITATION OF RESEARCH:

This research does not address any scientific or toxicity effect studies of the Hazardous and Noxious Substances (HNS) on individuals or property and the marine environment in general. The economic impact and the assessment of liability for HNS accidents are also not included in this thesis. It is important to emphasize here that because the 1996 HNS Convention and the 2010 HNS Protocol have not yet been enforced, no cases relating to the 1996 HNS Convention have been placed before the court and as such, are not available for discussion. This study is only limited to the legal aspect of the 1996 HNS Convention and 2010 HNS Protocol.

I. EVALUATION OF 1996 HNS CONVENTION

A) THE NECESSITY FOR 1996 HNS CONVENTION

It is very essential to transport hazardous and noxious substances (HNS) by sea. Chemicals as well as other goods are used in many productions process, and International Maritime Organization (IMO) rules make sure they can be transported safely. We need to examine several issues to answer why the 1996 HNS Convention is needed.

At first glance, the number of ships carrying HNS is constantly increasing. In 2000, the number of Packaged HNS per container ship was 2,600, but in 2015 it stood at 5,000 annually. Similarly, the number of LNG tankers has increased from 250 in 2006 to 420 in 2014. Chemical tankers were 3100 in 2005; they came into 4060 in 2014. Likewise, if we look at LPG tankers, we will see 940 in 2000 and 1250 in 2014. Thus, the number of ships carrying HNS is increasing day by day. The number of accidents is increasing at a proportional rate. From 1996 to 2013 alone, there were 126 major accidents¹⁶. we will see an example of such an accident. It is dealt the Ievoli Sun Chemical Tanker Incident below:

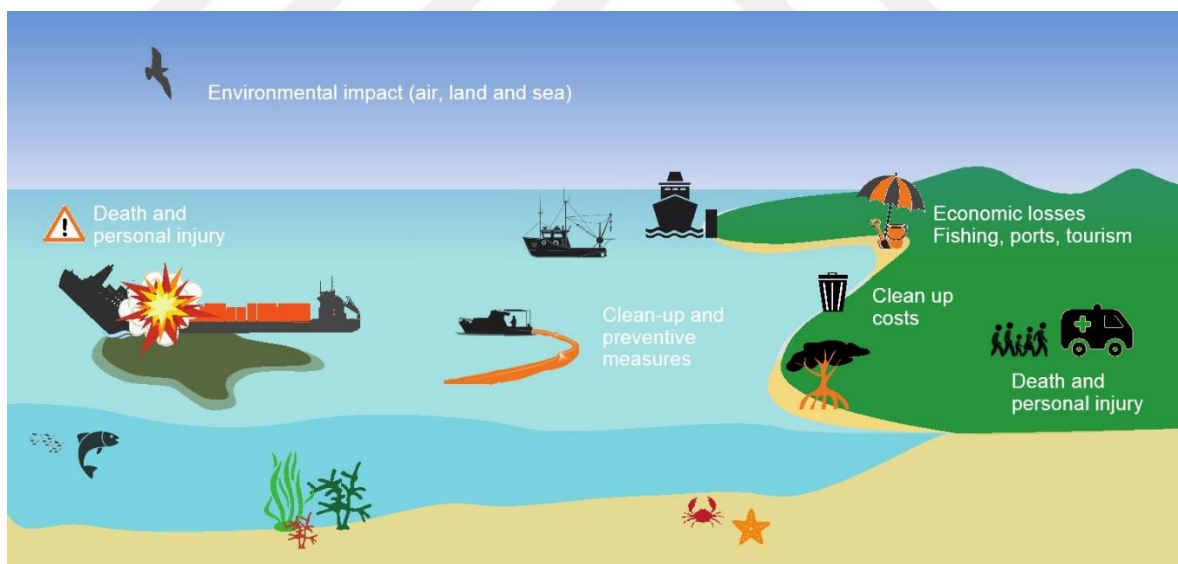
“The capsizing of a chemical tanker ship, Ievoli Sol, 31 October 2000, about 20 years ago, led to tremendous causes of concern due to the enormous potential for pollution of the marine environment. Ievoli Sun was a chemical tanker chartered by Domenico Ievoli, the Napolitan ship-owner. On 31 October 2000, she sunk about nine nautical miles (17 kilometers; 10 mi) off the Casquets in the English Channel, with a load of 6,000 tons, including 4,000 tons of styrene and one thousand tons of methyl ethyl ketone, and 1,000 tons of isopropyl alcohol. An unprecedented incident was the Ievoli Sun chemical tanker crash, an accident without any preliminaries, but left another unpleasant memory in a long-

¹⁶ See <www.ukpandi.com/news-and-resources/articles/2016/the-hns-convention---why-it-is-needed/> Accessed on 20 February 2021

winded list of maritime mishaps”¹⁷.

The example mentioned above of HNS accidents given, such catastrophic accidents have a negative impact on the marine environment, community security, and the global climate. Due to such accidents, one must face terrible losses. Fisheries have a significant impact on the economy. Toxic gases or chemical leaks pose a risk to the health and safety of marine species as well as humans in the sea, which can be as short-term as it can be long-term. An explosive detonation can potentially harm people and create a long-term threat to people living along the coast. It has a harmful effect on tourism; it also harms the visitors of the tourist spots. It damaged huge on the port. As well as causing extreme damage to the earth, a lot of financial support has to be given to rescue from these accidents and restoring sensitive habitats.

Image: Environment impact of HNS accident: -



Needless to say, the rate of chemical product transportation by sea is steadily increasing. All modern and dangerous items are carried, and the resulting mishaps are of

¹⁷ See Ievoli Sun Chemical Tanker Incident, 2000 < www.midsis.rempec.org/en/incidents/2000-ievoli-sun> Accessed on 25 August 2021

enormous proportions. As a result, civil society should make a concerted effort to prevent such accidents and compensate victims afterward.

In order to make the 1996 HNS Convention feel necessary, I would like to mention another critical issue. We have various international regulations related to maritime-related matters, including ship design, operation, safety, safe transport, oil cargo, bunker fuel oil, passenger or wreck removal. So far, there is no uniform and comprehensive international legislation to ensure liability for HNS accidents and to ensure compensation, which would work to restore the settlement and topography of HNS accidents. 1996 HNS Convention covered by the Convention include oils; other liquid substances defined as noxious or dangerous; liquefied gases; liquid substances with a flashpoint not exceeding 60°C; dangerous, hazardous, and harmful materials and substances carried in packaged form or containers; and solid bulk materials defined as possessing chemical hazards¹⁸.

In this case, only the 1996 HNS Convention guarantees two tier liabilities system, which we will discuss in the next part of the thesis. At this stage, we would like to point out that a total of Special drawing rights (SDR)¹⁹ 250 million is due under the HNS Fund. This Convention is the final piece of the instrument to ensure that those injured or have incurred loss have access to a complete and internationally recognized liability and compensation scheme.

1. Major Gap of Other IMO Instruments

The IMO has already addressed the issue of chemical contamination prevention in the various provisions of the Conventions. The International Convention for Safety of Life

¹⁸ See <www.imo.org/en/MediaCentre/HotTopics/Pages/HNS-2010.aspx> Accessed on 15 August 2021

¹⁹ Special drawing rights (SDR) refer to an international type of monetary reserve currency created by the International Monetary Fund (IMF) in 1969 that operates as a supplement to the existing money reserves of member countries. Nonetheless, SDR allocations can play a role in providing liquidity and supplementing member countries' official reserves, as was the case amid the global financial crisis. The SDR serves as the unit of account of the IMF and other international organizations. The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies. Note that, 100 SDR equal to 139.977 USD

at Sea (SOLAS) 1974 is one significant example. The first version of SOLAS 1974 was signed in 1914. This Convention stipulates those dangerous goods cannot, in principle, be carried if they jeopardize passenger's lives or the safety of the ship²⁰. In addition to being a preventative measure, it is also a potentially effective option. In later years, SOLAS 1974 prohibited the shipment of hazardous materials as well. Because of the growth of the maritime industry, it wasn't until World War II that the IMO formed the SOLAS Convention 1974, which dealt primarily with the movement of grain and hazardous goods.

In 1948, the IMO Conference adopted Recommendation 22, which emphasized the necessity of international standardization concerning safety procedures. Several revisions to the 1948 Convention resulted in the 1974 Convention, which was entered into force in May 1981. This Convention applies to both dangerous commodities in package form and dangerous items transported in bulk. In principle, the 1974 Convention prohibits the transportation of hazardous materials unless the SOLAS Convention 1974 rules do it²¹. As a result, the Convention is considered one of the important treaties dealing with protective measures against accidents involving dangerous commodities.

The IMO has established many guidelines in connection with this, such as those of the IMDG Code 1965, the International Bulk Chemical Code (IBC Code), the International Gas Carrier Code (IGC Code) and the International Code for the Safe Carriage of Package Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Waste on board Ships Code (INF Code). The IMO updates these codes regularly. Other treaties, such as Convention on the International Regulations for Preventing Collisions at Sea (COLREG), 1972, International Convention for Safe Containers (CSC), 1972, the SOLAS Convention 1974 mentioned above and the International Convention for the Prevention of Maritime Pollution by Ships 1973/1978 (MARPOL73/78), also integrate the Codes requirements. Both the MARPOL73/78 Convention and the SOLAS Convention 1974 and the accompanying rules are intended to prevent accidents and increase safety by addressing issues such as the carrying

²⁰ GUNER-OZBEK, M., The carriage of dangerous goods by sea, 2008, p 8.

²¹ See <www.marineinsight.com/maritime-law/safety-of-life-at-sea-solas-convention-for-prevention-of-marine-pollution-marpol-a-general-overview/> visited on 25 September 2021

of bulk chemicals aboard chemical tankers²² and the transport of chemicals in package forms²³. These conventions are, of course, indispensable to prevent incidents involving HNS. But there is no consistent and comprehensive international mechanism to compensate for losses, including clean-up and restoration for the ecosystem. Only the 1996 HNS Convention provides two-tiered liability and compensation regime.

2. Major Gap of Civil Liability Conventions

In addition to these protective steps, the international community has created a repressive system dealing with civil liability and oil spills compensation. This Convention is to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying vessels²⁴. It focuses only on oil emissions and not on pollution caused by other hazardous and noxious substances, as it is not deemed appropriate by some states²⁵.

Notwithstanding, a decade later the 1969 formation of the International Convention on Civil Liability for Oil Pollution Damage (CLC), triggered by the Torrey Canyon disaster in 1967, it became apparent that the international community should also consider adopting a convention on civil liability concerning the transportation of chemicals by sea. The uniqueness of chemicals, the lack of information on their potential environmental impact, along with the difficulties in determining the supplier of these chemical products, led to the

²² See for example the International Convention for the Safety of Life at Sea (SOLAS), 1974 Chapter 7 (carriage of dangerous goods) and the International Convention for the Prevention of Maritime Pollution by Ships 1973/1978 (MARPOL73/78) Annex II (regulations for the control of pollution by noxious liquid substances in bulk)

²³ See <www.imo.org/en/OurWork/Environment/Pages/International-Conventions,-Protocols-and-Codes.aspx> Accessed on 25 September 2021

²⁴ See Preamble the 1992 Civil Liability Convention (1992 CLC).

²⁵ This mainly due to a lack of scientific, insurance and commercial data available about chemical substances.

conclusion that the extension of the 1969 CLC regime was not satisfactory to close the gap between the civil liability regime for non-oil HNS pollution²⁶.

A new approach to liability was required very much. States started drafting the civil liability convention for HNS incidents by setting a high priority in the late 1970s²⁷. The following chapter of the dissertation will discuss the proceedings that resulted in the 1996 HNS Convention's acceptance. The study will then evaluate the 1996 HNS Convention in a broader context.

B) DEVELOPMENT OF THE 1996 HNS CONVENTION

After the tragic Torrey Canyon accident off the coasts of Great Britain and France in 1969, two new legislative instruments were passed in Brussels in 1969 to take immediate action at the IMO's Diplomatic Conference. 1969 CLC and Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (Intervention Convention). Both conventions, interestingly, address ship-related oil pollution damage. In any of them, there is no provision for liability in the event of an accident while transporting hazardous materials. Despite introducing the Supplementary Fund Convention in 1971²⁸ and the Intervention Protocol in 1973, no comprehensive mechanism on dangerous goods

²⁶ GUNER-OZBEK, M., *The carriage of dangerous goods by sea*, 2008, p 257.

²⁷ See IMO docs LEG. XXXIII/5 (99) Para. 52.

²⁸ INTERNATIONAL CONVENTION ON THE ESTABLISHMENT OF AN INTERNATIONAL FUND FOR COMPENSATION FOR OIL POLLUTION DAMAGE, 1971, Adoption on 18 December 1971; Entry into force on 16 October 1978; superseded by 1992 Protocol on Adoption on 27 November 1992; Entry into force on 30 May 1996. Although the 1969 Civil Liability Convention provided a useful mechanism for ensuring the payment of compensation for oil pollution damage, it did not deal satisfactorily with all the legal, financial, and other questions raised during the Conference adopting the CLC Convention.

The 1969 Brussels Conference considered a compromise proposal to establish an international fund, to be subscribed to by the cargo interests, which would be available for the dual purpose of, on the one hand, relieving the shipowner of the burden by the requirements of the new convention and, on the other hand, providing additional compensation to the victims of pollution damage in cases where compensation under the 1969 Civil Liability Convention was either inadequate or unobtainable.

The Conference recommended that IMO prepare such a scheme. The International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage was adopted at a conference held in Brussels in 1971. It is supplementary to the Civil Liability Convention.

transportation exists²⁹. In 1984, it began its operations.

The Comité Maritime International (CMI), 1897³⁰ drafted the first HNS Convention in 1984. Despite the fact that it was submitted as a proposal at the Diplomatic Conference, it was rejected by the delegates there. There was lack of consensus on the most fundamental issues of the proposed convention: (a) what substances will be covered by the proposed HNS Convention and whether to include packaged cargoes; (b) the allocation of liability between the shipowner and the shipper; and (c) the definitions of certain key terms such as shipowner, shipper, and damage. Commentators attribute the rejection to the complexities of the subject and the tight working schedule³¹.

In order to agree on the 1996 HNS Convention, the Legal Committee of IMO³² had

²⁹See <www.imtip.pt/sites/IMTT/Portugues/TransporteMaritimo/Convencao_HNS/Documents/presentation-12.pdf> Accessed on 15 August 2021

³⁰ The Comité Maritime International (CMI) is the oldest organization in the world that is exclusively concerned with the unification of maritime law and related commercial practices. It is a non-governmental not-for-profit international organization established in Antwerp in 1897, the object of which is to contribute by all appropriate means and activities to the unification of maritime law in all its aspects. To this end it shall promote the establishment of national associations of maritime law and shall co-operate with other international organizations. The Comité Maritime International is incorporated in Belgium as an Association Internationale sans but lucratif (AISBL) / Internationale Vereniging zonder Winstoogmerk (IVZW) under the Belgian Act of 27 June 1921 as later amended. It has been granted juridical personality by Royal Decree of 9 November 2003. Its statutory seat is at Ernest Van Dijckkaai 8, 2000 Antwerp. Its statutory seat maybe changed within Belgium by decision of the Executive Council.

The discussions of the early 1880s included plans for a diplomatic conference to affect the proposed codification, and such a conference was organized and hosted by the Belgian Government and held in Antwerp in 1885. When the 1885 Conference failed to accomplish the task, a second diplomatic conference was held in Brussels in 1888. While one may regret that the 1888 Conference also failed to attain what was in retrospect an over-ambitious goal, it is clear that the CMI was formally organized as a direct outgrowth of the two failed diplomatic conferences. In the aftermath of the 1888 Conference the ILA lost its appetite for continued work on a grand unification of maritime law, and it was eventually agreed between the ILA and the interests who wished to carry on the work of unification that a specialist organization should be formed to pursue this goal. The agreement with the ILA was announced in a circular letter from the Comité Maritime International dated 2 July 1896; thus, we know that the CMI was already in existence and functioning at least in a limited way for some period prior to its formal establishment in 1897.

³¹ Robert S. Schuda, *The International Maritime Organization and the Draft Convention on Liability and Compensation in Connection with the Carriage of Hazardous and Noxious Substances by Sea: An Update on Recent Activity*, 46 U. Miami L. Rev. 1009, 1023, 1027, 1028 (1992).

³² The Legal Committee is empowered to deal with any legal matters within the scope of the Organization. The Committee consists of all Member States of IMO. It was established in 1967 as a subsidiary body to deal with legal questions which arose in the aftermath of the Torrey Canyon disaster. The Legal Committee is also empowered to perform any duties within its scope which may be assigned by or under any other international instrument and accepted by the Organization.

to engage in meaningful discussions for a long time and finally approved amended text³³ and adopted at eighty-fourth session on 3rd May 1996. The 1996 HNS Convention is a large model on the existing regimes for oil pollution from tankers set forth by the 1992 Civil Liability Convention (CLC) and the 1992 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (the Fund Convention). By contrast, however, the new regime dealing with compensation for accidents involving HNS is governed by one single instrument, which adopts a two-tier arrangement, being the strict primary liability of the shipowner, secondary liability covered by a fund. The compensation provided to the victims of accidents involving HNS is up to a certain amount. Besides compensating for pollution damages, the HNS Convention goes further to cover risks of fire and explosion, including loss of life or personal injury as well as loss of or damage to property³⁴.

The CMI 1897 first discussed the party obligation during the drafting process before addressing other concerns. A community of informal practitioners considered some possibilities. The first option was to keep the shipowner strictly liable for paying compensation to all victims of the Hazardous and Noxious Substances incidents. As per the customary maritime law, this is the responsibility where the shipowner is liable, not the shipper³⁵.

A second alternative discussed was to keep only the shipper liable. A third option was to stay the shipowner and the shipper responsible collectively and severally. Another alternative was to create a two-tier system that first keeps the shipowner liable, and the shipper is responsible for the excess liability. Finally, the working group discussed another

³³ The 1991! Draft HNS Convention embodied developments since 1987 and resolved a whole range of problems left by the 1984 Draft HNS Convention. See generally Robert S. Schuda, *The International Maritime Organization and the Draft Convention on Liability and Compensation in Connection with the Carriage of Hazardous and Noxious Substances by Sea: An Update on Recent Activity*, 46 U. Miami L. Rev. 1009, 1040-47 (1992).

³⁴ Rosalie Balkin, *The Hazardous and Noxious Substances Convention: Travail or Travaux - The Making of an International Convention*, 20 Aust. YBIL 11, 1(1999) (As will become apparent, both of these treaties served as a model for the 1996 HNS Convention). Måns Jacobsson, *The HNS Convention and its 2010 Protocol*, in *Pollution at Sea: Law and Liability* 23, 24 (Baris Soyer & Andrew Tettenborn eds., 2012).

³⁵ FAURE, F., *Tort, and Insurance Law*, 2003, p 165.

two-tier system that kept the shipper liable in the first place and the shipowner for the remains. Throughout the first phase of negotiations, there was some support for the shipper's liability for inherent damaging or inadequate packing and definition of the products, which lies within the shipper's duty, sometimes leading to danger. Eventually, the negotiating parties found the shippers liability concerning risk-spreading to divide the liability among many³⁶.

Ultimately, the fourth alternative creating a two-tier system of strict liability³⁷ was primarily preferred by the States. It imposed risk allocation by placing primary liability on the shipowner and secondary liability on the shipper for the residue of claims that the owner could not cover³⁸. This refers to whether the shipowner is insolvent or whether the amount of loss is beyond the owner's duty due to the legal limitations on the owner's liability.

This two-tier structure was also considered by the 1984 International Conference on Liability and Compensation for Damage in Connection with the Carriage of Such Substances by Sea and was favored by a significant majority. There was, however, some debate about the methodology of the shipper term. Identifying the shipper when it comes to HNS products is not as simple as in the oil industry, where the cargo is mostly drilled, shipped and sold by one company³⁹. In the HNS industry, there are frequently more parties with a concern in the products. Afterwards, a suggestion emerged that the second tier, financed by a collective levy⁴⁰ from cargo insurers, would compensate the victims if the limits of the liability of the shipowner of the first tier were exceeded⁴¹.

Secondly, within the context of the two-tier system, Member States debated the appropriate restriction number to use for both shippers and owners' responsibility. Rather

³⁶ *ibid.* p. 15

³⁷ Most of the state parties agreed on the fact that a strict liability system, which means liability without any proof of a culpable conduct, should be set up. The Legal Committee agreed on this issue in its 60th session.

³⁸ BIEVRE, A., *Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea*, *Journal of Maritime Law and Commerce*, 1986, p 72.

³⁹ GUNER-OZBEK, M., *The carriage of dangerous goods by sea*, 2008, p 251.

⁴⁰ So, no direct liability for the shipowner. See also IMO LEG/65/3/8.

⁴¹ See <www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Pages/LEG.aspx> Accessed on 12 November 2021

than a tonnage-related premium, several nations preferred a set liability rate for shipowners. In addition to collecting levies, the second tier would act as a sort of reserve fund.

Thirdly, a discussion was held on which the 1996 HNS Convention should protect loads. The principle of providing only bulk HNS and not bundled HNS prevailed among participating states because the sole exclusion of bulk HNS in the coverage of the Convention leads to greater convenience in identifying the word shipper and implementing mandatory insurance requirements. However, most states favored a wide variety of Hazardous and Noxious Substances, which included both bulk and packed cargo that caused all kinds of damage⁴².

A compensation scheme should be applied if, despite all the protective steps, an accident has occurred. However, for HNS products other than gasoline, there was no such liability scheme. HNS incident victims have been left behind. Instead of proposing, “victims should go to the swimming pool” when dangerous consequences devastated seas due to a casualty and repair was improbable. The lack of a liability system could no longer be tolerated, and the world community reacted. States have begun discussions about establishing this Convention.

It took longer than that, however. Completing the Convention took a long time because of this:

- 1) When HNS damage happened, the parties decided on who should be responsible.
- 2) It addressed small quantities and how the first and second-tier systems could work.
- 3) On the contentious question of the concept of HNS, the States agreed.

⁴² Not only catastrophic incidents were included in the liability system. See LEG/62/4/1.

This portion of the study has highlighted several problems surrounding the HNS draft Convention's application. By 2009, the 1996 HNS convention had not been ratified in sufficient numbers. A second international conference, held in April 2010, adopted a Protocol to the HNS Convention (2010 HNS Protocol), a Protocol designed to overcome significant practical obstacles impeding the Convention's ratification process, which represented a significant improvement in the Convention's progress toward ratification and implementation⁴³.

The need for the 1996 HNS Convention is definite. It would be considered that there is a rise in conduct by sea. Not only oil but also other hazardous and harmful substances are transported by ship. Obstructive steps are essential for preventing accidents. Fortunately, the international community has responded rapidly to this need to implement preventive measures. Several countries ratified conventions early on, including the MARPOL 73/78 and the SOLAS Convention 1974.

⁴³ Måns Jacobsson, The HNS Convention and its 2010 Protocol, in *Pollution at Sea: Law and Liability* 23, 24 (Baris Soyer & Andrew Tettenborn eds., 2012).

II. OVERVIEW OF THE CONVENTION

A) APPLICATION OF 1996 HNS CONVENTION

In general, this part of the thesis provides different definitions provided in the 1996 HNS Convention and limits the Convention's objective. Meaning of the ship, the HNS, and the loss will, in particular, be later discussed along with the geographical limitation of the international instruments. Notwithstanding, before this research, a brief analysis of the running process of 1969 CLC, also known as the mother of the 1996 HNS Convention, should proceed, which is essentially the CLC model convention. This addresses the essential issues of the 1969 CLC Convention before handling the significant characteristics of 1996 HNS Convention.

1. The Mother Convention of 1996 HNS Convention: 1969 CLC

The 1969 CLC Convention was considered to be the 1996 HNS Convention's mother convention. A three-tier liability method is included in the 1969 CLC, a convention defining a civil compensation method for oil pollution damage from maritime accidents involving oil-

carrying ships⁴⁴. The liability under the first tier shall be connected to the shipowner who is strictly liable for damage caused by pollutants. Under Article III (5), it is only against the registered shipowner that a charge can be made. In compliance with Article III, the shipowner is entitled to limit his responsibility. The shipowner shall not be entitled to limit his liabilities in the case of any damage resulting from the injury, his personal act or omission, committed with the intent to cause such damage, or recklessly and with the knowledge that such damage would probably result⁴⁵. Legal owners anticipate insurance or other financial security to assure claimants will be compensated for any damages they have suffered from their actions.

The second tier's obligation comes into force when the first tier cannot adequately compensate the victims. The second tier offers coverage for the International Oil Pollution Compensation Fund 1992, which receives donations from companies that have received crude oil and heavy fuel oil after marine transport under the Fund Convention States⁴⁶. In 2005, following the *Erika* and the *Prestige*'s sinking, a third tier was created by the Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 to the 1992 Fund Convention. The assumption that the second tier's boundaries still were too low can be seen as a direct trigger for this 1992 Fund Convention to be created. The Fund Convention would be sponsored by oil recipients in states that opt to ratify the Protocol. The 1992 CLC Convention has been approved by several countries and its Fund Convention, thereby granting it an important place in the international community⁴⁷. However, the 2003 Supplementary Fund is comprised of only 27 states. The CLC Convention's general performance is utilized as a model for another Liability Convention, such as the 1996 HNS Convention, which deals with dangerous goods other than oil.

⁴⁴ MARTINEZ GUTIERREZ, N., *Limitation of Liability in International Maritime Conventions*, 2011, p 145.

⁴⁵ See the International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969 Article III (4) & Article V (2)

⁴⁶ *ibid.* p. 20

⁴⁷ European Commission, Directorate General for Energy and Transport, *The PRESTIGE Incident*, Press Package, November 21st, 2002, Bruxelles, 8 p.

2. Geographical scope

Determining the Convention's jurisdiction and geographical boundaries has become more complex and complicated because the ship where the accident occurred or where the damage occurred must be checked whether it is registered in the member state in which it is conditional. The 1996 HNS Convention will only apply to two important territories of the registered state, one having the sovereign rights of the state, known as the TS (Territorial Sea)⁴⁸, the other with the exclusive rights of the state, known as the EEZ (Exclusive Economic Zone)⁴⁹. Applies only to these two central regions.

On the other hand, if the event occurs in the TS or EEZ of a state which is not registered in this Convention, but its loss falls within the scope described in the Convention, then the Convention will also apply there. In addition, in the jurisdiction of the registered state, if anything other than the ship suffers damage, it will be considered to be covered by the Convention. However, "Article 3 provides that the Convention shall apply exclusively:

- a) to any damage caused in the territory, including the territorial sea, of a State Party.
- b) to damage by contamination of the environment caused in the exclusive economic zone of a State Party, established in accordance with international law, or, if a State Party has not established such a zone, in an area beyond and adjacent to the territorial sea of that State determined by that State in accordance with international law and extending not more than 200 nautical miles from the baselines from which the breadth of its territorial sea is measured.
- c) to damage, other than damage by contamination of the environment, caused outside

⁴⁸ The breadth of the territorial sea is established in Article 3 of the United Nations Convention on the Law of the Sea, 1982 (UNCLOS) as up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention. The normal baseline is the low water line along the coast (Article 5 of UNCLOS).

⁴⁹ The Exclusive Economic Zone is an area beyond the territorial sea defined in Article 57 of United Nations Convention on the Law of the Sea, 1982 (UNCLOS) as not beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

the territory, including the territorial sea, of any State, if this damage has been caused by a substance carried on board a ship registered in a State Party or, in the case of an unregistered ship, on board a ship entitled to fly the flag of a State Party; and

d) to preventive measures, wherever taken.

It should be noted that the scope of application of the Convention depends on the place where the damage occurred and not on the place of the incident. The type of damage is deemed as relevant, and in regard to (c), the nationality of the ship is also important⁵⁰.

Table-1: Application scope at a glance:

Scope of Application	Damages Covered
Territorial sea (0-12 nautical miles) of a state party	Any damage (loss of life, injury, pollution, property, preventative measures)
Exclusive Economic Zone (EEZ) (12-200 nautical miles) of a state party	Pollution damage including preventive measures
On board a seagoing vessel of a state party beyond the territorial sea	Any damage excluding pollution

3. The Notion of Dangerous Goods

Dangerous goods are subject to legislation relating to shipping, workplace, storage, consumer safety and environmental protection, the prevention of incidents affecting people, property, or the environment, as well as other items or modes of transportation. Materials for hazardous substances are also subject to chemical legislation and regulations, any item or commodity capable of posing an unacceptable risk to health, protection, and property when

⁵⁰ See Article-3 of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996, (1996 HNS Convention)

transported in commerce is a dangerous good, often referred to as hazardous material or hazmat. The first step in reducing the goods risks with proper labelling, communication, and handling recognizes dangerous products⁵¹.

Hazmat or dangerous substance contains explosives, gases, flammable liquids, flammable solids, spontaneously combustible, oxidizer, organic peroxide, poison (toxic), risk of poison inhalation, infectious substances, radioactive material, corrosives, batteries of lithium. Physical environments such as compressed gases and liquids or hot materials, or all items containing such materials or chemicals, are often included or may have other characteristics that, in particular situations, make them harmful⁵². IMDG 1965 Code has been established as a standard international code for the transport by sea of dangerous goods covering matters such as packaging, container transport and storage, with specific regard to incompatible substances being separated. The SOLAS Convention 1974 and MARPOL 73/78 govern the transportation of hazardous materials and marine pollutants on sea-going ships⁵³.

Table-2: Hazardous and Noxious Substances regulations at a glance:

Substances covered	Conventions Codes	Reference (www.imo.org)
Bulk	MARPOL 73/78	
Oils	MARPOL 73/78	Annex I, Regulation 1
Noxious Liquids	IBC Code	Annex II, Regulation 1.10

⁵¹ See <www.epa.gov/laws-regulations/summary-toxic-substances-control-act> Accessed on 25/11/2021

⁵² See <www.oceanservice.noaa.gov> Accessed on 10 January 2021

⁵³ See <www.unece.org/transport/dangerous-goods> Accessed on 10 January 2021

Dangerous liquids	IGC Code 7	Chapter 17
Liquids with a flashpoint not exceeding 60°C		
Gases	IMBSC Code 8	Chapter 19
Solids	IMDG Code 9	(If also covered by the IMDG Code in packaged form)
Packaged Cargo	Conventions Codes	

Source: IMO website

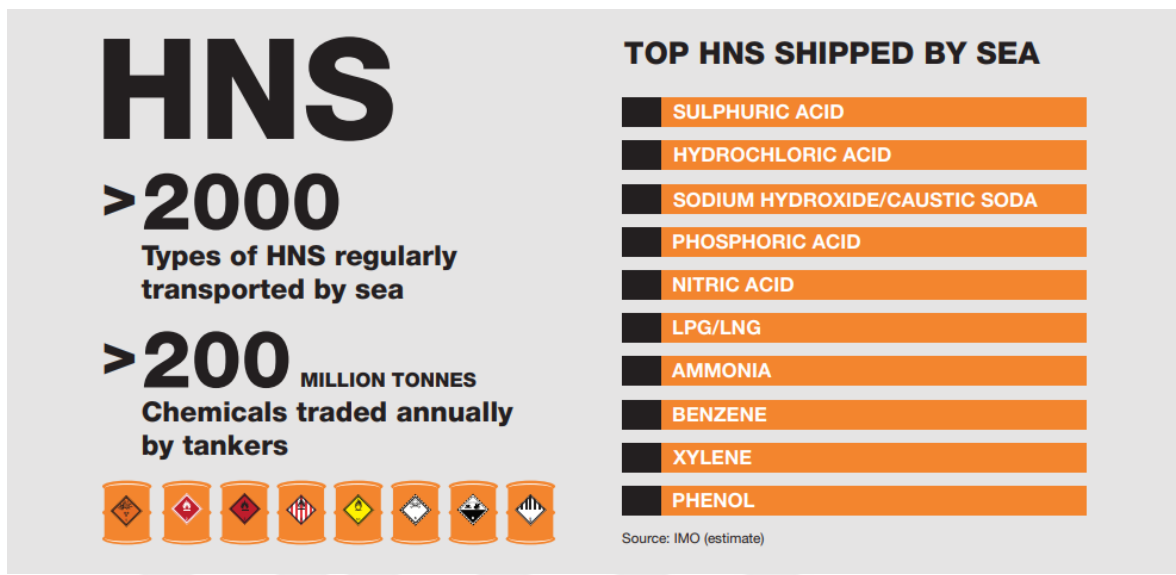
The United Nations has developed frameworks for the harmonization of hazard classification standards and communication tools and for transport conditions for all modes of transport to ensure continuity between all these regulatory frameworks. United Nations Economic Commission for Europe, (UNECE) 1947⁵⁴ also administers regional agreements to successfully implement these mechanisms for transporting hazardous goods by road, rail, and inland waterways. For all modes of transport (sea, air, rail, road, and inland waterways), the United Nations Committee of Experts on the Transport of Dangerous Goods has drawn up the classification (grouping) of dangerous goods by type of risk involved⁵⁵.

Image-1: There are some top dangerous goods shipped by Sea

⁵⁴ The United Nations Economic Commission for Europe (UNECE) was set up in 1947 by ECOSOC. It is one of five regional commissions of the United Nations. UNECE's major aim is to promote pan-European economic integration. The commission is composed of 56 member States, most of which are based in Europe, as well as a few outside of Europe. Its transcontinental Eurasian or non-European member States include Armenia, Azerbaijan, Canada, Georgia, Israel, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkey, Turkmenistan, the United States of America, and Uzbekistan.

However, all interested United Nations member States may participate in the work of UNECE. Over 70 international professional organizations and other non-governmental organizations take part in UNECE activities.

⁵⁵ This committee is under the Economic and Social of the United Nations.



Source: IMO (estimate)

4. Classification of Dangerous Goods

a) Class 1: Explosives

- i. Explosives with the risk of mass explosion
- ii. Explosives with a substantial danger of projection
- iii. Fire explosives with
- iv. Minor fire or danger of projection
- v. The insensitive material with a possibility of the massive explosion
- vi. Articles that are particularly insensitive

b) Class 2: Gases

- i. Flammable gases
- ii. The Non-Flammable Gases

- iii. The Toxic Gases

c) Class 3: Flammable Liquids

A flammable liquid means a liquid that, with any flashpoint, can quickly catch fire or any combination with one or more components. Examples include acetone, diesel, petrol, kerosene, gasoline, etc. Transportation is highly recommended for bulk packaging at or above its flashpoint. Three major classes of flammable liquids exist.

- i. Low flash point - flash point liquids below -18°C
- ii. Intermediate flash point - liquids from -18°C at the flashpoint. Up to $+23^{\circ}\text{C}$
- iii. Group of large flash points - liquids with a flashpoint of $+23^{\circ}\text{C}$ ⁵⁶

d) Class 4: Flammable solids or compounds

- i. flammable solids
- ii. Self-reactive compounds
- iii. Desensitized Solid Explosives
- iv. Substances and mixtures polymerizing (stabilized)
- v. Substances that are responsible for spontaneous combustion
- vi. Substances that produce compressed gasses while in contact with water

e) Class 5: Organic peroxide and oxidizing compounds

⁵⁶ See <www.arkasline.com.tr/en/dangerous_cargo__imo_codes_and_symbols.html> Accessed on 10 January 2021

- i. Substance's oxidizing
- ii. Organic Peroxides in organic matter
- iii. Toxic compounds
- iv. Infectious ingredients

f) Class 6: Radioactive Material

The term radioactive material refers to any radionuclide-containing material in which both the concentration level and the accumulated activities in the shipments exceed the established limits for safety.

g) Class 7: Substances of corrosion

Reactive species are chemicals that, through chemical action, inflict serious harm if chemicals come into touch with human tissues or, in the event of a spill, inflict destructions to other items or modes of transportation, or even cause death.

h) Class 8: Various dangerous chemicals and papers and substances which are environmentally hazardous

Substances and articles (miscellaneous hazardous substances and articles) are substances and items which present a hazard not covered by other categories during transport.

- i. Substances that can endanger health by inhalation as fine dust.
- ii. Flammable vapor-developing compounds
- iii. Batteries with lithium
- iv. Appliances that save lives

- v. Condensers
- vi. Substances and papers that can form dioxins in the event of a fire.
- vii. Substances transported or sold at elevated temperatures for transport
- viii. Hazardous chemicals in the atmosphere
- ix. Genetically engineered microorganisms (GMMOs) and organisms that are genetically modified (GMOs)⁵⁷

5. Key Definitions

a) HNS

According to Article 1.5 of the Convention definition of HNS, substances, materials, and articles carried onboard ships as cargo as described in different international instruments signed to ensure marine and pollution protection. Also, dangerous, hazardous, and harmful substances, materials, and articles in packaged form covered by the IMDG 1965⁵⁸.

The definition encompasses both solids and liquids, including liquefied gases. HNS protects packaged items only if they comply with the IMDG 1965, as defined in the Convention on Biological Diversity, 1992. Significant bulk resources such as coal, as well as fish meal and waste, were omitted from the Convention's structure by its drafters. As established in the 1969 CLC environmentally polluting oils are likewise prohibited freight.

This means that a fire or explosion triggered by residual oil, for example, is protected by the 1996 HNS Convention's description. On the other hand, the drafters left bunker oil damage out of the reach of the Convention. Article 4(3)(b) also excludes damage caused by

⁵⁷ *ibid.* p. 27

⁵⁸ Article 1.5 of International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996

the radioactive materials referred to in the IMDG 1965 of Class 7 or Appendix B of the Safe Practice Code for Solid Bulk Cargoes⁵⁹.

While several materials certainly meet the scientific definition of hazardous and noxious substance, they escaped inclusion due to legal and commercial factors⁶⁰. For example, some delegates at the 1996 Diplomatic Conference agreed that solid bulk materials classified by the IMO, such as coal and fishmeal, should be excluded from the 1996 HNS Convention's coverage, arguing that it would be unjustifiable to subject the industry to excessive levies for contributions to the HNS Fund due to the large volumes shipped as cargo and the low risk of damage associated with these materials. Additionally, radioactive materials would be excluded from the scope of the 1996 HNS Convention, like other treaties that already cover nuclear liabilities, namely the 1960 Paris Convention on Nuclear Third-Party Liability (as amended by the 2004 Protocol) and the 1963 Vienna Convention on Civil Liability for Nuclear Damage (revised by the 1997 Protocol)⁶¹.

b) Ship

According to Article 1(1) of the 1996 HNS Convention defines Ship means any seagoing vessel and seaborne craft, of any type whatsoever. Another provision is made on article 4.4 of the Convention, which states that shall not apply to warships, naval auxiliary, or other ships owned or operated by a State and used, for the time being, only on Government non-commercial service. According to the 1996 HNS conventions, the above ships are exempted from the ship's definition⁶².

⁵⁹ The IMDG code of Class 7 or Appendix B of the Safe Practice Code for Solid Bulk Cargoes.

⁶⁰ Rosalie Ralkin, *The Hazardous and Noxious Substances Convention: Travail or Travaus-The Making of an International Convention*, 20 Aust, YBIL 11, 26 (1999)

⁶¹ Richard Price, *The Carriage of Hazardous Cargo by Sea: A UAE Law Perspective*, 10 Arab L.Q. 310, 325 (1995).

⁶² Article 1(1) and 4(4) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (the 1996 HNS Convention).

Ship means any vessel required to comply with the 1974 SOLAS Convention⁶³. Ship means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms⁶⁴.

Compared with the 1996 HNS Convention's extensive terminology, the definition of ship established by the 1969 CLC and 1992 Fund Conventions is Ship means any sea-going vessel and any seaborne craft of any type whatsoever, actually carrying oil in bulk as cargo⁶⁵.

c) Damage

According to Merriam Webster, damage means loss or harm resulting from injury to person, property, or reputation⁶⁶. This is the general meaning. In the case of the Convention, Article 1(6) states the damage the Convention provides. A lot of argumentations occurred regarding definition of damage. The 1969 CLC description of damage is comparable to the HNS conventions⁶⁷.

As previously stated, the 1996 HNS Convention is not limited to pollution-related issues. In the Convention, the term damage refers to the following:

- Any loss of life or injury inside or outside the ship in an accident while transporting dangerous goods.
- Damage was caused outside the ship as a result of the accident.

⁶³ IMO Resolution A.1021(26), Guidelines for ships operating in polar waters, 18 January 2010, International Maritime Organization.

⁶⁴ IMO Resolution A.951(23), amendments to the IMO Guidelines on Ship Recycling (resolution A.962(23)), 3 February 2006, International Maritime Organization.

⁶⁵ Article 1 (1) of the International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969/1992)

⁶⁶ See <www.merriam-webster.com/dictionary/damage> Accessed on 30 October 2021

⁶⁷ WETTERSTEIN, P., Carriage of hazardous cargoes by sea – The HNS Convention”, Georgia Journal of International & Comparative Law, 1997, p 599.

- Destruction of the environment due to transportation of toxic products.
- Damage caused by measures taken to protect the environment⁶⁸.

On the other hand, the 1969 CLC defines the term more broadly.⁶⁹ Article 1(6) of the 1969 CLC provides the definition of ‘Pollution damage’, not directly damage. This Convention states means loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, and includes the costs of preventive measures and further loss or damage caused by preventive measures⁷⁰.

Secondly, loss of life or damage at sea when a Member State’s National Sovereignty is in peril is covered by the Convention⁷¹. Next, the Convention also covers the loss or harm to property of certain liquids carried outside the ship if they leak. Thus, the regime also reimburses economic losses arising from environmental pollution. The Convention also covers reasonable steps to restore the atmosphere. One wants to know what reasonable measures and how much can be considered economic losses. Case law will prevail here.

However, suppose the combination of hazardous substances and other products causes injury. In that case, the 1996 HNS Convention will still apply unless proof is provided that there is no NHS material to be found. This example, again, proves that the concept of damage in the HNS is more expansive than the one in the 1969 CLC is correct.

d) Receivers of Cargo

In contrast to the concept of owner, which is quite apparent, the definition of the receiver is far more complicated, and it has, for the most part, been the subject of

⁶⁸ Article 1 (6) of the 2010 HNS Convention

⁶⁹ JACOBSSON, M., HNS Convention: Prospects for its entry into force, part II – CMI Yearbook 2009, 2009, p 418.

⁷⁰ Article 1(6) of the International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969

⁷¹ Article 1(6) (b) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

considerable discussion and debate since the writing of the 1996 HNS Convention. This word is essential because those who come under its meaning will be obligated to contribute to a second-tier compensation fund, the HNS Fund - due to their employment. The Diplomatic Conference of 1984 started with the premise that it should be up to the shippers to contribute to financing the second layer money pool, which they did⁷². It wasn't until a proposal in 1994 that this task was passed to the receivers, avoiding the complications associated with determining who the shipper is, whether in law or actuality, was⁷³. "According to 1996 HNS Convention Article 1 paragraph 4, receiver means either:

- (a) the person who physically receives contributing cargo discharged in the ports and terminals of a State Party; provided that if at the time of receipt, the person who physically receives the cargo acts as an agent for another who is subject to the jurisdiction of any State Party, then the principal shall be deemed to be the receiver, if the agent discloses the principal to the HNS Fund; or
- (b) the person in the State Party who in accordance with the national law of that State Party is deemed to be the receiver of contributing cargo discharged in the ports and terminals of a State Party, provided that the total contributing cargo received according to such national law is substantially the same as that which would have been received under (a)"⁷⁴.

The phrase 'either' indicates that the receiver can only be one of the two choices. Furthermore, because the definition does not refer to a formal hierarchy, the executing state can choose an alternative. Option (b) specifies that governments are free to define receiver as they see fit under national law. However, such a definition must result in the total amount of contributing cargo received in the affected state reaching the same level as if the

⁷² Robert S. Schuda, The International Maritime Organization and the Draft Convention on Liability and Compensation in Connection with the Carriage of Hazardous and Noxious Substances by Sea: An Update on Recent Activity, 46 U. Miami L. Rev. 1009, 1023 n.87, 1027, (1992).

⁷³ Meltem Deniz Güner-Özbek, The Carriage of Dangerous Goods by Sea 274 (2008).

⁷⁴ Article 1 (9) of the 2010 HNS Convention

Convention's description had been used⁷⁵. This allows the state to adopt the 1996 HNS Convention with existing national legislation. As a result, a state that decides to establish domestic receiver thresholds must be aware of the total contributing cargo that the Convention will result in. Nonetheless, if a state party chooses not to implement option (b) fully, it will be subject to option (a) and assessed accordingly⁷⁶.

B) THE SHIPOWNER'S STRICT LIABILITY AND EXCEPTIONS

In simple words, strict liability means liability without fault. In other words, the plaintiff does not need to prove any fault on the defendant's part; he merely needs to show that the defendant performed the act and that the plaintiff suffered loss, damage, or hurt as a result of it. In the maritime domain, it is significant that civil liability in convention law in respect of ship-source pollution damage is strict. The notion of strict liability was introduced in the 1969 CLC following the *Torrey Canyon* disaster in 1967. During the Diplomatic Conference in Brussels convened by what was then the International Maritime Consultative Organization (IMCO)⁷⁷, there was considerable debate over what should be the basis of liability. Finally, after protracted negotiations, the international maritime community agreed on strict liability as to the basis⁷⁸. The classic British House of Lords decision regarding the *Rylands v. Fletcher* case plays a vital role in making decisions on strict liability. Because the doctrine of strict liability was adopted in the case of *Rylands v. Fletcher* is quite old⁷⁹. In this instance, the judges decided to indulge the defendant, who hired the corporation that built the reservoir.

⁷⁵ Nicholas Gaskell: The Draft Convention on Liability and Compensation for Damage Resulting from the Carriage of Hazardous and Noxious Substances, in *Essay in Honor of Hugo Tiberg* 225, 287 (1996).

⁷⁶ *ibid.* p. 33

⁷⁷ Healy, Nicholas J. CMI and IMCO Draft Conventions on Civil Liability for Oil Pollution" 1969 J. Mar. L. & Com. 1, 93, 100-101. Van Hanswyk, Beth. The 1984 Protocols to the International Convention on Civil Liability for Oil Pollution Damages and the International Fund for Compensation for Oil Pollution Damages: An Option for Needed Reform in United States Law. (1988) *The International Lawyer*, 319-343.

⁷⁸ Shavell, Steven. *Strict Liability versus Negligence*. (1980) 9 J. Legal Stud., 2,5.

⁷⁹ *Rylands v Fletcher* - Case Summary <<https://www.lawteacher.net/cases/rylands-v-fletcher.php?vref=1>> accessed 9 March 2021

The first point is that the shipowner should be liable for damage incurred in the case of an HNS incident. According to Article 7 paragraph 1 of the 1996 HNS Convention, the owner at the time of an incident shall be liable for damage caused by any hazardous and noxious substances in connection with their carriage by sea on board the ship, provided that if an incident consists of a series of occurrences having the same origin the liability shall attach to the owner at the time of the first of such occurrences⁸⁰.

As a result of the imposition of strict liability, the shipowner will be held liable even if there is no wrongdoing on the part of the ship or its crew. According to recent tendencies in environmental impairment liability legislation, strict liability has been adopted, says the author. Its use lessens the claimant's burden of proof and allows compensation payments to be made more rapidly, hence reducing the likelihood of a lengthy court proceeding. Furthermore, the imposition of strict liability on the shipowner will incentivize the master and crew to exercise proper caution to avoid casualties⁸¹.

Finally, strict liability may be the only way to ensure optimal compensation when considering the possible scale of the inherent risk associated with the transportation of HNS. Culpability based on negligence could, in this case, fail to offer enough compensation due to the limitations of such liability. The 'supportive-crux' of the 1996 HNS Convention's preamble is, in fact, the strict liability clause which ensures the availability of adequate, timely, and effective compensation in the first place⁸².

Since strict liability has first been adopted, other countries have done so as well. The 1996 HNS Convention was put in place because of many factors, including liability

⁸⁰ Article 7 of the 2010 HNS Convention

⁸¹ Peter Wetterstein, Trends in Maritime Environmental Impairment Liability, L.M.C.L.Q. 230, 240 (1994) (observing that strict liability has become the rule with respect to pollution damage in a growing number of countries). Strict liability on the shipowner has already been the basis for other international conventions such as those related to nuclear ships, i.e., the 1960 Paris Convention on Third Party Liability in the field of Nuclear Energy, the 1963 Supplementary Convention to the 1960 Convention: the 1963 Vienna Convention on Civil Liability for Nuclear Damage and the 1971 Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Materials. The principle of strict liability was also employed by the 1969 Civil Liability Convention, and more recently the 2001 Bunkers Convention.

⁸² Robert S. Schuda, The International Maritime Organization and the Draft Convention on Liability and Compensation in Connection with the Carriage of Hazardous and Noxious Substances by Sea: An Update on Recent Activity, 46 U. Miami L. Rev. 1009, 1024-25 (1992).

simplification. First, this is to recover the victim's money is, of course, because the shipping industry is better able to compensate for certain types of losses done by HNS. During HNS transport, the shipping industry has learned precisely what threats the environment may be subjected to. The shipping industry has thus purchased insurance in this instance. as a final note, it promotes environmental protection in the shipping industry. It holds ship operators to high standards of diligence. For these purposes, strict liability is a safe method of providing liability concerning the 1996 HNS Convention. Ensure prompt and adequate compensation for those affected by the shipment of hazardous goods⁸³.

Liability exceptions exist in Article 7.2, which holds the shipowner exempt from liability. A critical aspect of the insurance is that the shipowner's risk is shared equally and its registration and registration documentation. In some cases, shipowners will be relieved of liability. In this case, the shipowner must prove that the accident was caused by war, rebellion, a natural disaster, or hostility, resulting in damage—losses due to unjust actions or intentions of a third party. For example, if pirates seized a vessel and dumped the HNS into the ocean, the owner would not be responsible. The damage caused by accident is due to the negligence of any government or someone else's wrongdoing. The damage was caused by the negligence of those responsible for navigating the seas. For those not involved in the ship's service, the shipowner is responsible for any damages incurred. [...] unless the damage resulted from their personal act or omission with the intent to cause damage, or recklessly and with knowledge that such damage would probably result [...] ⁸⁴.

The 1996 HNS Convention provides identical restrictions on so-called liability channeling to those found in the 1992 CLC. The 1996 HNS Convention, on the other hand, is critical in that it precludes claims against the shipowner's agents or members of the crew and claims against the pilot or any other person who provides services for the ship without being a member of the staff. Additionally, it precludes claims against the ship's charterer

⁸³ Preamble of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996.

⁸⁴ Article 7 last paragraph of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (the 1996 HNS Convention).

(including bareboat charterers), manager, or operator, against anyone performing salvage operations with the consent of the shipowner or on the instruction of a competent public authority, and against anyone taking preventive measures, as well as claims against any of these parties' servants or agents⁸⁵.

Certain exceptional circumstances to this Convention would relieve the shipowner of all responsibility. When [...] neither the owner nor its servants or agents knew or ought to have reasonably known of the hazardous and noxious nature of the substances, the owner can avoid liability when he proves the damage resulted from different forms of war or a natural phenomenon of an exceptional, inevitable and irresistible character⁸⁶.

C) LIMITATION OF THE SHIPOWNER'S LIABILITY

The shipowner and insurer have some limitations of liability. The liability is capped regardless of the number of the tonnage of goods the ship is carrying. After a lengthy debate, the discussant decided to address the responsibility of the shipowner as follows:

1. "10 million units of account for a ship not exceeding 2,000 units of tonnage; and
2. for a ship with a tonnage in excess thereof, the following amount in addition to that mentioned in (a):
 - a) For each unit of tonnage from 2,001 to 50,000 units of tonnage, 1,500 units of account.
 - b) For each unit of tonnage in excess of 50,000 units of tonnage, 360 units of

⁸⁵ Robert S. Schuda, The International Maritime Organization and the Draft Convention on Liability and Compensation in Connection with the Carriage of Hazardous and Noxious Substances by Sea: An Update on Recent Activity, 46 U. Miami L. Rev. 1009, 1024-25 (1992).

⁸⁶ Article 7.2 of the 2010 HNS Convention

account; Provided however that this aggregate amount shall not in any event exceed 100 million units of account”⁸⁷.

The Convention’s text clearly states that one has set the high limit of Special Drawing Right (SDR)⁸⁸ for smaller ships. These vessels are extremely common, so the SDR fund would be in trouble if the cap was lowered. The owner shall not be entitled to limit liability under this Convention if it is proved that the damage resulted from the personal act or omission of the owner, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result⁸⁹.

Notably, the HNS Fund shall not be liable for damages caused by unidentified ships unless the claimant establishes a reasonable probability that the injuries were caused by an incident involving one or more vessels. The foundation of the HNS Fund was meant to close the gap created when drums or other similar containers washed ashore from unknown ships and impacted states, or victims were unable to pin the responsibility on anyone. In the case of an unidentified offending ship, delegates debated whether the Fund would be unfairly burdened with establishing the causal relationship between the incident and harm, given that the damages were caused to a considerable extent by sources other than ships⁹⁰. The UK and Japan said that victims must establish a reasonable chance of identifying the ship in order to get compensation from the Fund; otherwise, they will have little motivation to do so. The Legal Committee endorsed this proposal⁹¹.

The shipowner should form an account for the total amounts indicating the responsibility with the state or other competent national body before the limit of liability can be claimed as well as demonstrate that the damage is not the product of his own act or

⁸⁷ Article 9 (1) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (the 1996 HNS Convention).

⁸⁸ The Special Drawing Rights (SDR) values are calculated every day by the international monetary fund (IMF).

⁸⁹ Article 9 (2) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (the 1996 HNS Convention).

⁹⁰ Colin de la Rue & Charles B. Anderson, *Shipping, and the Environment* 287 (2nd ed. 2009).

⁹¹ Rosalie Ralkin, *The Hazardous and Noxious Substances Convention: Travail or Travaus-The Making of an International Convention*, 20 Aust, YBIL 11, 26 (199)

omission, undertaken with intent... or recklessly and with the awareness that such damage would almost certainly follow⁹². If you compare this to the Convention on Limitation of Liability for Maritime Claims, 1976, which requires the shipowner to wait until he or she has been appropriately served before being permitted to establish such a fund, you will see that this is a most welcome change of pace. A fund of this nature may also be established by the shipowner's insurer or another entity providing financial protection.

It would be sufficient to deposit cash or give the permissible sorts of assurance under the domestic legislation of the judiciary to implement the fund. Other benefits accrue to the shipowner because of the HNS damage include the following: any person who has a claim based on the HNS incident is barred from taking any action against any other assets of the shipowner in connection with that claim; and, in the event that the shipowner's ship or other property has been impounded as a result of the incident, it will be released. When a claim for personal injury or death exceeds the fund's ability to pay out the total amount of the claim, personal injury or death claims are entitled to preferential treatment up to two-thirds of the amount of the claim and claims for other damages rank equally and are compensated by pro-rata abatement⁹³.

D) COMPULSORY INSURANCE

The Torrey Canyon tragedy prompted the notion of compulsory insurance in shipping. The resulting focus on these kinds of disasters gave the IMO the motivation to make suggestions on what can be done to deal with those problems. After a lengthy discussion of the contra claims and their support and opposition to such compulsory insurance, the scheme was for the first time introduced in the Civil Liability Convention of 1992. Since then, other conventions have made similar decisions to that of the Nairobi International Convention on the Removal of Wrecks (Wreck Removal Convention) 2007,

⁹² Article-9.3 of the 2010 HNS Convention

⁹³ Magnus Goransson, *The HNS Convention*, 2 *Unif. L. Rev.* n.s. 249, 262 (1997)

Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (PAL) 1974, and The Passenger Liability Regulation (PLR) implements the Athens Convention and the 2002 Protocol in EU member states⁹⁴.

The compulsory insurance, which requires all classes of ships to hold financial protection or other economic security in an annual amount to the limitations of liability when transporting HNS products, also serves to justify the strict and limited liability mechanism. For a variety of reasons, international accords requiring mandatory insurance in the context of environmental impact risk and human harm are in place⁹⁵.

First and foremost, compulsory insurance covers the party who has suffered an injury against the insolvency of the liable entity and allows for the distribution of damages to the advantage of the party who has suffered damage. Considering current procedures in the oil-pollution field, it is well-founded to believe that instituting a system of mandatory insurance would ensure adequate compensation for victims in the event of the shipowner's insolvency, particularly in the case of a single corporation or vessel operating under a flag of convenience.

Secondly, a compulsory insurance system would reduce the difficulties that arise when a ship fails or causes damage for which the victim cannot seek compensation due to a lack of protection or financial status.

Thirdly, to provide an additional layer of protection if the liable vessel owner is unavailable, the mandatory insurance system gives access to compensation by allowing the claimant to initiate a concrete action against the insurer.

Fourth, by the direct effect, compulsory insurance can assist the claimant in overcoming the difficulties of identifying a new claim against a corporation located in another country.

⁹⁴ ROSAEG, E., Compulsory maritime insurance, Yearbook 2010 of the Scandinavian Institute for maritime law, available at <http://folk.uio.no/erikro/WWW/corrgr/insurance/simply.pdf> last accessed 19/03/2021.

⁹⁵ John D. Edgcomb, Hazardous Substances Releases from Vessels: Current U.S. Law, the HNS Convention and its Potential Impact if Ratified, 10 U.S.F. Mar. L.J. 73, 105 (1997).

Finally, mandatory insurance is expected to improve ships seaworthiness and discrete operations, hence contributing to a safer sea environment. As a result, insurance companies often require a better quality on board in order to maintain their charges as low as possible⁹⁶.

To summarize, the compulsory insurance plan has been regarded as a natural component of a current liability regime that includes strict liability, the channeling of obligation, and other features.

According to article 12 of the 1996 HNS Convention, the shipowner must provide insurance or other protection that will provide security that the Convention will protect all liability claims; this is first introduced on the 1969 CLC Conventions article 7. Most of the time, insurance provided by Protection and Indemnity Insurance Clubs (P&I Clubs) and Clubs issue blue cards to demonstrate that the ship is insured for voyages⁹⁷.

Additionally, the state will have to determine whether a blue card represents an entitlement to insurance certificates. Any port which is under the 1996 HNS Convention must be given certificates of international or non-membership when non-flagged ships do so arrive in port. For states, the Convention specifically requires mandates that parties at sea have sufficient insurance or other financial protection and a condition of entry or departure.

As already mentioned, the object of the current international convention is to allow prompt and equal coverage for anyone who is injured by marine accidents; hence this new compulsory insurance legislation was introduced⁹⁸.

Additionally, the Convention reinforces the imposition of compulsory insurance by providing victims of HNS incidents with an individual right to sue the insurer or other security guarantor for the shipowner's liability for their damage. This is typically easier than chasing the shipowner, mainly when the liable paper firm goes bankrupt or vanishes

⁹⁶ Erik Rosæg, *Compulsory Maritime Insurance*, Scandinavian Institute of Maritime Law Yearbook 2000 3 (2000).

⁹⁷ ZHU, L., *International Convention on Civil Liability of Bunker Oil Pollution Damage; Liability and insurance aspects*, 2001, p 7.

⁹⁸ See Preamble of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

following an HNS pollution event⁹⁹. Apart from the 1996 HNS Convention, the International Convention on Civil Liability for Oil Pollution Damage (CLC) 1969/1992, and the International Convention on Civil Liability for Bunker Oil Pollution Damage (BUNKER), 2001 Meanwhile, the 2002 Protocol to the Athens Convention and the Nairobi International Convention on the Removal of Wrecks (Wreck Removal Convention) 2007, both include a right of direct action. Even in the event of the assured owner's actual fault or privity, the insurer may limit his liability to the Article 9 paragraph I amount. Once sued, the insurer may raise all defenses available to shipowners and claim that the owner's willful misbehavior caused the damage¹⁰⁰. However, the direct-action clause conflicts with the default position under English common law, which is that a person who suffers loss or injury at the hands of a tortfeasor or contractual defaulter is not a party to, and thus not privy to, the contract of insurance between the wrongdoer and the wrongdoer's insurers, and thus has no rights against those insurers¹⁰¹.

Direct action against the insurer is permitted under English law only if the insured becomes bankrupt or enters insolvency. In other instances, the insurer will compensate the insured after the latter has made a claim payment¹⁰². In the majority of maritime insurance contracts, particularly P&I Clubs policies, this 'pay to be paid' clause is included to exclude direct actions,¹⁰³ and the P&I Clubs is not obligated to pay the insurance sum until the insured pays the injured party¹⁰⁴. However, with the passage of the Third Parties (Rights Against Insurers) Act 2010, this provision has been altered somewhat. According to Section 9(5), the third party's rights are not subject to a condition requiring the insured to discharge its liability to the third party in advance, and hence the 'pay to be paid' clauses will have no impact under

⁹⁹ Article 12 (8) of the 2010 HNS CONVENTION

¹⁰⁰ Steven J. Hazelwood & David Semark, *P&I Clubs: Law and Practice* 291 (4th ed. 2010)

¹⁰¹ *ibid.* p. 42

¹⁰² The Third Parties (Rights Against Insurers) Act 1930, *Sees. (1X) & (b) (U.K.)*.

¹⁰³ Because the insurance policies issued by P&I Clubs were indemnity policies, and with indemnity policies, an action against the insurer does not interfere in the discharge of liability obtained by the insured. As her words, the only required to reimburse the insured for judgments that have already been paid the practice of the paid Nicolas R. Foster, *Marie Dowice Direction Shows and Related Lives*, 11 U.S. E Mar L.J.251.266 (1999)

¹⁰⁴ *Firma C-Trade SA, Newcastle Protection & Indemnity Association (The Fami) 2 App. Cas. 1. 29 (1991)*

the 2010 Act¹⁰⁵. However, maritime insurance has a limited application and is only applicable in the event of death or personal injury. In other words, pay to be paid clauses will continue to have the ability to bar direct actions in maritime disputes unless they include death or serious injury¹⁰⁶.

Effective action can be enforced by international treaties that have been ratified or acceded to and enacted as domestic law in the States that have ratified or acceded to them. Direct action has been made feasible at the domestic level by Scandinavian law¹⁰⁷, which applies to clubs incorporated or functioning in Norway and Sweden.¹⁰⁸ Additionally, under US law, the ‘pay to be paid’ clause, often known as the no action condition, is deemed unenforceable by a majority of judges as being contrary to public policy. The Louisiana direct action statute, by far the most famous of all explicit action statutes and quickly the most generous and all-inclusive¹⁰⁹, established a right of immediate action against the insurer that was disregarded¹¹⁰.

E) THE HNS FUND

We will continue with the second-tier functions in this section of the portion of thesis. This thesis will start by discussing when the second tier is working and then presenting its

¹⁰⁵ The Third Parties (Right Against Insurers) Act 1930, Sees. (1X) & (b) (U.K.).

¹⁰⁶ Johanna Hjalmarsson, Direct Claims Against Marine Risks in the Anglo Legal System, 18 Asia Pac. L. Rev. 259,265 (2010)

¹⁰⁷ See the Norwegian Insurance Act (Act 1989-06-16-69). 176. A pay to be paid clause was struck down in the Shape (ND 1954,465, RA 1954 p 1002) as invalid under the Norwegian rules on direct action and this result has now been codified in the Norwegian Insurance Act also see the Swedish Insurance Act (Act 2005: 101 with several amendments). Ch 9.7

¹⁰⁸ Steven J. Hazelwood & David Semark, PRI Clubs: Law and Practice 291 (4th ed. 2010)

¹⁰⁹ Saunders Austin W. Fishing Corp. 1967 A.M.C. 984 (the Supreme Judicial Court of Massachusetts decided that the satisfaction of judgment by the insured is not a condition precedent to recovery against the insurer Olympic Towing Corporation. Nebel Towing Co, 419 F.2d 230 (5th Cir. 1969). Cort v. Westover 197 US 987(1970) (the US Supreme Court held that in Louisiana, P&O policies are just like any other marine insurance contract and may be directly wacked by any injured third parties. The Fifth Circuit Court of Appeals held trying this principle of direct to the public policy of Louisiana which proclaims that liability insurance including purported indemnity primarily for the benefit of the insured.)

¹¹⁰ The Louisiana Direct Action Statute is codified in Part XIV of the Insurance Code LA REYSTAL ANN. 22665 (West 2009)

overall organizational structure. Additionally, we will talk about who will provide money for this second-tier and their sum.

The HNS Fund is responsible for compensating shipowners when the total claimed amount exceeds their capacity, i.e., when the shipowner or his behalf is unable to pay the whole amount of damage caused by accident. In addition, the HNS Fund compensates victims in the following situations:

- When proved the shipowner is not liable; or
- The shipowner who is accountable for the damage is unable to satisfy his financial responsibilities.

According to “Article 13 of the 1996 HNS Convention provides that:

1. The HNS Fund is hereby established with the following aims:
 - (a) to provide compensation for damage in connection with the carriage of hazardous and noxious substances by sea, to the extent that the protection afforded by chapter II is inadequate or not available; and
 - (b) to give effect to the related tasks set out in article 15.
2. The HNS Fund shall in each State Party be recognized as a legal person capable under the laws of that State of assuming rights and obligations and of being a party in legal proceedings before the courts of that State. Each State Party shall recognize the Director as the legal representative of the HNS Fund”¹¹¹.

1. Function

¹¹¹ Article 13 of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

In order to compensate the affected party of HNS incidents, a second tier was instituted. “In the second tier, functions will be present:

- a) Because no liability for the damage arises under chapter II.
- b) Because the owner liable for the damage under chapter II is financially incapable of meeting the obligation under this Convention in full and any financial security that may be provided under chapter II does not cover or is insufficient to satisfy the claims for compensation for damage; an owner being treated as financially incapable of meeting this obligation and a financial security being treated as insufficient if the person suffering the damage has been unable to obtain full satisfaction of the amount of compensation due under chapter II after having taken all reasonable steps to pursue the available legal remedies;
- c) Because the damage exceeds the owner’s liability under the terms of chapter II”¹¹².

In the event of an act of war, armed hostilities, civil war, or insurrection, or if the hazardous and noxious substances which had escaped or been discharged from a warship or other ships owned or operated by a state and used, at the time of the incident, only on Government non-commercial service, the HNS Fund will not be applied¹¹³.

Additionally, the victim can’t get compensation from the HNS Fund if there is no way that a monetary loss can be reasonably attributed to maritime incidents. It cannot be argued that the Fund is responsible if it can be proved to that the victim or victim’s family did the damage intentionally or unintentionally. Based on over history, research suggests that the exceptions put forward by article 14(3)(a) and (b) and 14(4) are similar to those used in IOPC Funds¹¹⁴. While the IOPC Fund lacks other similarities, there are many more to point out. The Fund’s organizational structure is built on the IOPC and has a Secretariat. The primary purpose of the Assembly serves to approve payment applications against the Fund.

¹¹² Article 14 (a) (b) (c) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

¹¹³ *ibid.* p. 45

¹¹⁴ *ibid.* p. 45

on the contrary, the administration and the Fund's secretariat are concerned with allegations made against the Fund.

2. Establishment of the Fund

The HNS Fund has a long-running debate about how many accounts it should have and who should be contributing to them. According to Article 16 of the 1996 HNS Convention, when the 1996 HNS Convention becomes fully effective, the HNS Fund will have a general account. They will be divided into the following categories:

- Oil account
- Liquefied Natural Gas (LNG) account
- Liquefied Petroleum Gas (LPG) account

A general account with two sectors:

- Bulk solids
- Other HNS¹¹⁵.

Compensation payments resulting from damage caused by chemicals contributing to that account will be covered by each account. "Each separate account will only come into operation when the total quantity of contributing cargo received in Member States during the preceding year, or any such year as the HNS Assembly decides, exceeds the following levels:

- 350 million tonnes for the oil account
- 20 million tonnes for the LNG account

¹¹⁵ Article 16 (2) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

- 15 million tonnes for the LPG account”¹¹⁶.

Each state party will pay the amount decided by the assembly in the general account each year if its contributing cargo amount exceeds 20,000 tons. And to make annual contribution money payments to him, who is also responsible for making payments to separate accounts. The HNS Fund will operate by the Assembly¹¹⁷ and a Secretariat, led by a director.



Image: Grapes of minimum requirements of establishment of the accounts

¹¹⁶ Article 19 of the 2010 HNS CONVENTION

¹¹⁷ Article 25 of the 1996 HNS Conventions states, The Assembly shall consist of all States Parties to this Convention.

	Establishment of account	Contributions to account/sector
General account	40 million tonnes*	
• Bulk solids		20 000 tonnes
• Other HNS	No minimum quantity	20 000 tonnes
Separate accounts (or Sectors within the general account)		
Oil account	350 million tonnes	
• Persistent oil		150 000 tonnes
• Non-persistent oil		20 000 tonnes
LNG account	20 million tonnes	No minimum quantity
LPG account	15 million tonnes	20 000 tonnes

**Condition for entry into force*

3. Requirements of enforcement

Member states must provide information to the Secretary-General on the material contributed to the Convention and the data related quantities of contributing cargo obtained before they become parties. As with this procedural requirement, the ratification of the HNS Convention has proven to be problematic.

All member states are required to provide information about the quantities of all-natural gas they contributed to and all Liquefied Natural Gas (LNG) in that country's general account and all-natural gas sales to each separate account for one year preceding their ratification of the Convention. It was only after the required ratification of this procedural requirement that the 1996 HNS Convention became a success.

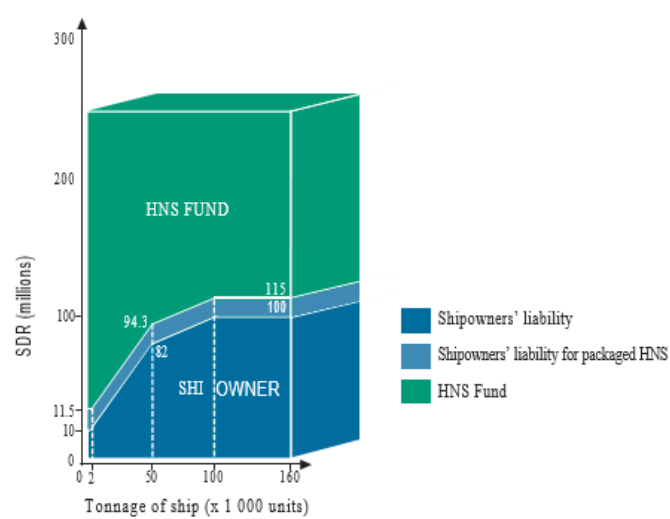
4. Limitation

Claims against the Fund must be made within three years of the occurrence. A claim cannot be filed more than ten years after the accident that resulted in the harm occurred, regardless of whether the injury was recognized or otherwise. Another thing is limitation of compensation which will be paid by the HNS Fund: The maximum amount payable by the HNS Fund in respect of any single incident is 250 million SDR, including the sum paid by the shipowner or insurer. The 2010 HNS Convention also provides a simplified procedure to increase the maximum amount of compensation payable under the Convention in the future. If the total amount of the admissible claims does not exceed the maximum amount available for compensation, then all claims will be paid in full. Otherwise, the payments will have to be prorated, i.e., all claimants will receive an equal proportion of their admissible claims¹¹⁸.

Image: Compensation amounts under the Convention

¹¹⁸ Article 14 of the 2010 HNS CONVENTION

Compensation amounts under the 2010 HNS Convention



Shipowners' liability and Fund limit laid down in the HNS Convention

III. 2010 HNS PROTOCOL

This section will examine the implementation of this new Protocol to the 1996 HNS Convention. For instance, why is such regulation necessary, and what type of requisition is required when dealing with procedural or substantial rules issues? It will begin by outlining the rationale for and process for adopting the 2010 HNS Protocol. Following that, the latest features introduced by the 2010 HNS Convention are discussed, which is a more significant issue in the dissertation because it shows the deficiencies of the 1996 HNS Convention. Additionally, the Diplomatic Conference's non-adopted recommendations are briefly discussed. Finally, this dissertation will discuss the mechanism by which the 2010 HNS Convention came into effect and the Protocol's prospects.

A) THE ADOPTION OF THE PROTOCOL

Ratification of the Convention was encouraged by several associations and institutions. For example, the Assembly of the IOPC requested that the European Union allow its member states to ratify the Convention. According to the International Oil Pollution Compensation Funds, the Secretary-General of the IMO should use his frequent contacts with high-level European Union officials to draw attention to the problem and urge the European Commission to bring pressure, to the extent possible, on states that have ratified the Convention to send the necessary reports. Furthermore, it was reported that EU member states must display leadership in this regard and that he will make every effort to assist in this endeavor¹¹⁹.

The European Union declared in its decision 2002/971/EC that all nations should step to procedures to adopt the Convention. This choice was made in consideration of the constitutional difficulties highlighted before in this thesis. "As a result, the European Commission emphasized the following ideas:

¹¹⁹ Statement by Mr. Dimas, Agenda item I, Para 3.8, p 3

1. The substantive rules of the system established by the 2010 HNS Convention fall under the national competence of Member States and only the provisions of jurisdiction and the recognition and enforcement of the judgments are matters covered by exclusive Community competence. Given the subject matters and the aim of the 2010 HNS Convention, acceptance of the provisions of that Convention which come under Community competence cannot be dissociated from the provisions which come under the competence of the Member States.
2. The Council should therefore authorize the Member States to ratify or accede to the 2010 HNS Convention in the interest of the Community, under the conditions set out in this Decision”¹²⁰.

As a large number of nations, the European Union’s support for the Convention was unavoidable. Therefore, the EU decided to prevent any misunderstandings and clarify that it supports the Convention by commenting. By forming a focus group on the 1996 HNS Convention, the IOPC Fund and its Assembly aimed to facilitate adoption within the EU and internationally¹²¹. To address the procedural issue of reporting data on contributing cargo amounts, the IOPC’s 1992 Assembly approved the Focus group’s proposal to create a Contributing Cargo Calculator (after this CCC). This CCC is regarded as a valuable instrument, and the states that are party to it have endorsed it. Additionally, the Focus Group discussed issues concerning the contribution of LNG titleholders and the monitoring of receipt of manufactured HNS products¹²².

When the 1992 Fund Administrative Council approved the Focus Group’s draft Protocol in June 2008 on behalf of the Assembly, there was no way to turning back to the 1996 edition of the HNS. The Administrative Council then delivered the draft 2010 HNS Protocol to the IMO Secretary-General, who sent the subject to the IMO’s Committee on

¹²⁰ EU decision 2002/971/EC., decision authorizing the Member States, in the interest of the Community, to ratify or accede to the HNS.

¹²¹ JACOBSSON, M., *The HNS Convention – Prospects for its entry into force*, Yearbook of the Committee Maritime International (CMI), 2009, p 417. See 92 FUND/A.12/28 Para 27.16, p 22

¹²² 1992 IOPC Fund Documents 92FUND/A.10/37, Para. 15.6-15.13 and SUPPFUND/A/ES.1/21, Para 9.2-9.10. and 71FUND/AC.17/20, Para 11.5-11.12, Para 32.4, p 28.

Legal Affairs, which will organize a Diplomatic Conference to sign the Protocol on behalf of States. The latest Protocol to the 1996 HNS Convention was adopted by the Diplomatic Conference in 2010. The International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by sea (hereinafter the 2010 HNS Convention) was herewith born¹²³.

B) THE URGENCY FOR THE PROTOCOL

After the lengthy drafting of the 1996 HNS Convention and its adoption, it appears that the Convention will face some difficulties in its implementation. As a result, the Convention was available for signature during the duration from 1 October 1996 to 30 September 1997. The Convention was signed by only eight countries: Canada, Denmark, Finland, Germany, the Netherlands, Norway, Sweden, and the United Kingdom¹²⁴. The other procedural prerequisite set out in the same article 46, referencing article 43, is that states ratifying the Convention send to the Secretary-General data on the related quantities of contributing cargo obtained or, in the case of LNG, discharged in that State during the preceding calendar year in respect of the general account and each separate account¹²⁵.

But, again, none of those mentioned above eight ratifying states deposited the data required by article 23 of the 1996 HNS Convention¹²⁶. The initial procedural conditions placed a constraint on the Convention's entry into effect, as concluded here. There was also a need to provide a tool to restore and address the controversies arising from the 1996 HNS Convention.

¹²³ IMO LEG/94/4, Annex. < static.mycoracle.com/igpi_website/media/article_attachments/LEG_94-12%5B1%5D.pdf >

¹²⁴ For more information about the signatures see < www.hnsconvention.org/status > Accessed on 20 November 2021

¹²⁵ Article 43 the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

¹²⁶ IMO document LEG/90/9, Agenda item I, paragraph 396, p 49.

1. Solutions for Bulk and Packaged HNS Problem

In reviewing the draft of the Focus Group, the Legal Affairs Committee of the IMO found that one of the key issues of the original HNS Convention in 1996 was the difficulty of reporting packages for the Member States on the HNS products. Reporting is essential to preserve the two-tier liability structure proposed by the HNS Convention. States demonstrated that monitoring the limited volume of HNS that arrives in several containers can impose a significant logistical burden.

After several months of focus group deliberations, the group suggested that packages do not financially support the Fund. Even if the HNS injury liability benefits serve a particular reason, in terms of the 1996 HNS Convention's mission, coverage for HNS injury victims was key to success. To find a solution, the focus group needed to develop a genuine alternative to eliminate the contribution liability. It discovered a check and balance by increasing the ship-owner's liability limit on complaints relating to losses incurred by packaged HNS products. At the meeting, the parties agreed to a revised limitation on the ship-owner's liability for ships transporting packed HNS goods:

“Where the damage has been caused by packaged HNS, or where the damage has been caused by both bulk HNS and packaged HNS, or where it is not possible to determine whether the damage originating from that ship has been caused by bulk HNS or by packaged HNS:

- a) 11.5 million units of account for a ship not exceeding 2,000 units of tonnage; and
- b) for a ship with a tonnage in excess thereof, the following amount in addition to that mentioned in (a) for each unit of tonnage from 2,001 to 50,000 units of tonnage, 1,725 units of account; for each unit of tonnage in excess of 50,000 units of tonnage, 414 units of account.

Provided, however, that this aggregate amount shall not in any event exceed 115 million units of account”¹²⁷.

As this current article clarifies, the ship-owner’s liability for loss incurred entirely or partly by packed HNS is expanded by 15% compared to the level set out in article 9 (1) of the 1996 HNS Convention. This was agreed in opposition to the evidence presented by the International Group of Protection and Indemnity Clubs on compensation claims¹²⁸. According to this group of Protection and Indemnity Clubs, the original ship-owner’s restriction number will accommodate the bulk of victim claims. As a result, the Clubs, along with a few other supporting states, proposed maintaining the liability limitations established in the first 1996 HNS Convention. However, as shown in the above Protocol article, other states rejected this one-sided suggestion at the Diplomatic Conference. The final text is deemed an acceptable option for removing the onerous burden of disclosing HNS package items while retaining the primary emphasis on fair coverage for victims of HNS damage¹²⁹.

2. Solution for Liquefied Natural Gas Account

Over the last ten years, LNG has rapidly been transported by sea over. Pipelines carrying gas are becoming increasingly obsolete as LNG trade occurs on a global scale, with shipping playing an important part. By trading LNG with tankers, the shipping industry takes over a small portion of this market. In comparison to 1996, the scenario of LNG transport has shifted dramatically due to this progression. Governments and significant energy firms controlled the LNG transport market when the 1996 HNS Convention was drafted¹³⁰. The gas industry requested that donations should be made by any individual who held title to an LNG cargo discharged at a port or terminal of that state during the prior calendar year, or

¹²⁷ Article 7 (2) of the 2010 HNS Convention.

¹²⁸ Focus Group Document 92 FUND/WBR 5/5

¹²⁹ IMO LEG/94/12, Para 4.12, p 7.

¹³⁰ SHAW, R., IMO diplomatic Conference Adopts HNS Protocol on 30 April 2010, *Il Diritto marittimo* 2010, p 296.

such other year as the Assembly may determine¹³¹. This did not appear to be a plan to keep up with the rising LNG transit by the sea a decade later. IOPC conference established an informal communication group to address this issue, which led to the Protocol's approval of a new article 11, which states:

- a) "In the case of the LNG account, subject to article 16, paragraph 5, annual contributions to the LNG account shall be made in respect of each State Party by any person who in the preceding calendar year, or such other year as the Assembly may decide, was the receiver in that State of any quantity of LNG"¹³².

This article transfers the responsibility for contributing to the Fund from the LNG cargo's titleholder to the receiver to address the aforementioned issues. Nonetheless, the Protocol allows a contribution to the LNG Fund by the titleholder open. In this case, the Protocol states the following provision:

- b) "However, any contributions shall be made by the person who, immediately prior to its discharge, held title to an LNG cargo discharged in a port or terminal of that State (the titleholder) where:
 - i. the titleholder has entered into an agreement with the receiver that the titleholder shall make such contributions; and
 - ii. the receiver has informed the State Party that such an agreement exists"¹³³.

In addition, during the analysis at the diplomatic conference, it was ensured that no party could refrain from contributing to the LNG Fund in order to avoid compensation. This is reflected in the last two paragraphs of the revised Article 11 of the 2010 HNS Protocol.

¹³¹ Article 19 (1) (b) of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

¹³² Article 11 (2) (a) of the 2010 HNS Convention, emphasis added.

¹³³ Article 11 (2) (b) of the 2010 HNS Convention

3. Major HNS Accidents at Sea

a) Data analysis about HNSs:

Nowadays, a substantial amount of HNS is carried by sea. There are two ways to transport hazardous and toxic substances:

- i. In bulk (gas in gas tankers, solids in bulk carriers or liquids in tankers),
- ii. packaged (IBCs, drums, ISO tanks, etc.). in container ships, cargo vessels and ferries.

The IMO Codes and rules define the hazardous nature of HNSs delivered in bulk and the hazards connected with such substances. In 2010, an international list of the twenty chemicals most likely to be transported and the most hazardous to the ship was compiled. Annually, around 165 million tonnes of chemicals (including petrochemicals) are stored, although only about 20 represent the most significant threat.

The study is based on data penetration for the most regularly transported chemicals and spilt chemical substances during maritime transportation. The following are the top ten chemicals associated with HNS incidents: Sulphuric acid, Styrene, Hydrochloric acid, Methanol, Sodium hydroxide/caustic soda, Ethylene glycol, Phosphoric acid, Chlorine, Nitric acid, Acetone, Liquefied natural gas (LNG), Liquefied petroleum gas (LPG), Ammonium nitrate, Ammonia, Urea, Benzene, Toluene, Xylene, Acrylonitrile, Phenol, Vinyl acetate¹³⁴.

There are fourteen liquids in all, ten of which are dissolvers, three of which are evaporators or floater evaporators, two of which are dissolver evaporators, three solids, and three liquids. Almost all of these compounds have been implicated in major HNSs at sea accidents.

The tables below contain information on the largest spills involving HNS chemicals transported in bulk and packaged from maritime vessels. The tables detail the ship's name

¹³⁴ IMO's OPRC-HNS Technical Group, 2010

and type, the year the disaster occurred, the type of cargo delivered and spilt, and the location and size of the produced spill (tonnes).

Table-3: The most severe spills from ships involved HNSs in bulk:

No	Ship Name	Type of vessel	Year	Carrying	Spill size	Location
1	Abdul Rahman	Cargo vessel	1997	Ammonium nitrate, ferrosilicon, caustic soda	2,100	Libya
2	Onur K	Bulk carrier	1997	zinc and lead concentrates	1,500	Sicily
3	Allegra	Product tanker	1997	palm nut oil	900	France
4	Levoli Sun	Chemical tanker	2000	methyl, ethyl, ketone, isopropyl alcohol	2,000	France, Germany, UK
5	Euro bulker IV	Bulk carrier	2000	coal	14,000	Italy
6	Balu	Chemical tanker	2001	sulphuric acid	8,000	France
7	Adamandas	Bulk carrier	2003	deoxidized iron ore balls	21,000	France

8	Bow Mariner	Chemical tanker	2004	ethanol	11,000	USA
9	Ece	Chemical tanker	2006	phosphoric acid	10,000	UK
10	Granba	Chemical tanker	2009	sulphuric acid	6,500	Sri Lanka

-Compiled from Cedre and SINTEF reports by the authors

According to data, accidents involving large quantities of HNSs mostly happened 10 accidents between 1997 and 2009. Seven incidents occurred following the year 2000, resulting in almost 600 tonnes of the chemical into the sea. Until 1997, there was just three accidents involving HNS in bulk.

Packaged HNSs, on the other hand, will not leak into the sea. Even if the container floats on the sea's surface, it will remain confined within the drum. Unless the vessel or drum is damaged, the chemical is still handled and may stay there long. The Standard European Behaviour Classification (SEBC) classifies the behavior of packed HNS as floating, sinking or remaining in the water column, depending on the total density of the packaged unit.

The authors identify the ten most marine severe incidents HNS in packaged form during the two decades. Compared to incidents bulk HNSs, data on accidents involving packaged HNSs indicate that eight accidents occurred between 1997 and 2004. Before 1997, up to 3 marine incidents packaged HNS occurred. Following 2000, seven mishaps involving those chemicals occurred at ocean - a nearly identical figure to marine incidents involving bulk HNSs.

Table 4: contains the same information as Table 1 but includes information about HNS that is packaged.

No	Ship Name	Type of vessel	Year	Carrying	Spill size	Location
01	Stanislaw Dubois	General cargo	1981	calcium carbide	860 tonnes	Netherlands
02	Rio Neuquén	Container ship	1984	aluminum phosphide	7,000 flasks	Port of Houston (Texas)
03	Ariadne	Container ship	1985	various HNS	14 containers	Somalia
04	Cason	Container ship	1987	various HNS	1,000 tonnes	UK
05	Ocean Spirit	Dry cargo vessel	1988	lead concentrate	2,850 tonnes	Malta
06	Santa Clara I	Container ship	1992	arsenic trioxide	94 drums	USA
07	Nordfrakt	Dry cargo vessel	1992	lead concentrate	2,350 tonnes	Netherlands
08	Frank	Bulk carrier	1993	Michael monoammonium phosphate	1,100 tonnes	Baltic

09	Sherbro	Container ship	1993	pesticides, nitrocellulose, sulphur, phenol, methyl-ketone	88 containers	France
10	Weisshorn	Container ship	1994	rice	6,200 tonnes	Spain
11	Kairo	Container ship	1997	lead tetraethyl	6,240 tonnes	France
12	MSC Carla	Container ship	1997	Cesium 137	74 containers	Portugal
13	Dogrueyollar	Cargo ship	1998	IV zinc and lead concentrate	2,020 tonnes	Sardinia
14	Martina	Cargo vessel	2000	hydrochloric acid	600 tonnes	Denmark
15	Agamemnon	Container ship	2001	ammonium nitrate	2,000 tonnes	Thailand

-Compiled from Cadre and SINTEF reports by the authors.

b) Pollution of the Sea environment by HNS spilled

HNSs are a diverse group of substances that are carried in bulk or as packaged objects. When a substance spills into the sea, it behaves differently. If HNSs are expelled from a ship in quantity, they will exhibit a variety of behaviors:

- i. “Both liquids and solids can float or sink.

- ii. Liquids evaporate in stages, completely, or not at all.
- iii. Liquids, gases, and solids may all disperse into the sea or react with the seawater.
- iv. Gases discharged into seawater create clouds of gas in the air that may stay or dissipate depending on the wind conditions.
- v. Additionally, a mixture of the above behaviors is possible, with one being more prominent than the others. The final behavior of HNSs discharged into the sea is dependent on the water and temperature conditions”¹³⁵.

Non-packaged HNS - that is, HNS in bulk - must first be classified as liquid, solid, or gas before it may be specified as fluid, solid, or gas. The fundamental behavior of spilled HNS is divided into three categories: gases, liquids, and vapor pressure. The liquids are divided into three categories: Evaporators, Floaters, and Sinkers, whereas the solids are divided into three categories: Floaters, Dissolvers, and Sinkers, as well as combinations of these categories¹³⁶.

In the event of a dangerous goods-related disaster, specific procedures must always be taken. Regardless of the circumstances or materials involved, these steps are often comparable in most accident types. When dealing with a chemical release in the marine ecosystem, it's important to note that measures are regularly modified for the chemical's physical behavior in water. Fig. 1 illustrates the spill behavior of several chemical structures and packages in water. Multiple qualities may be present in a chemical spill at the same period.

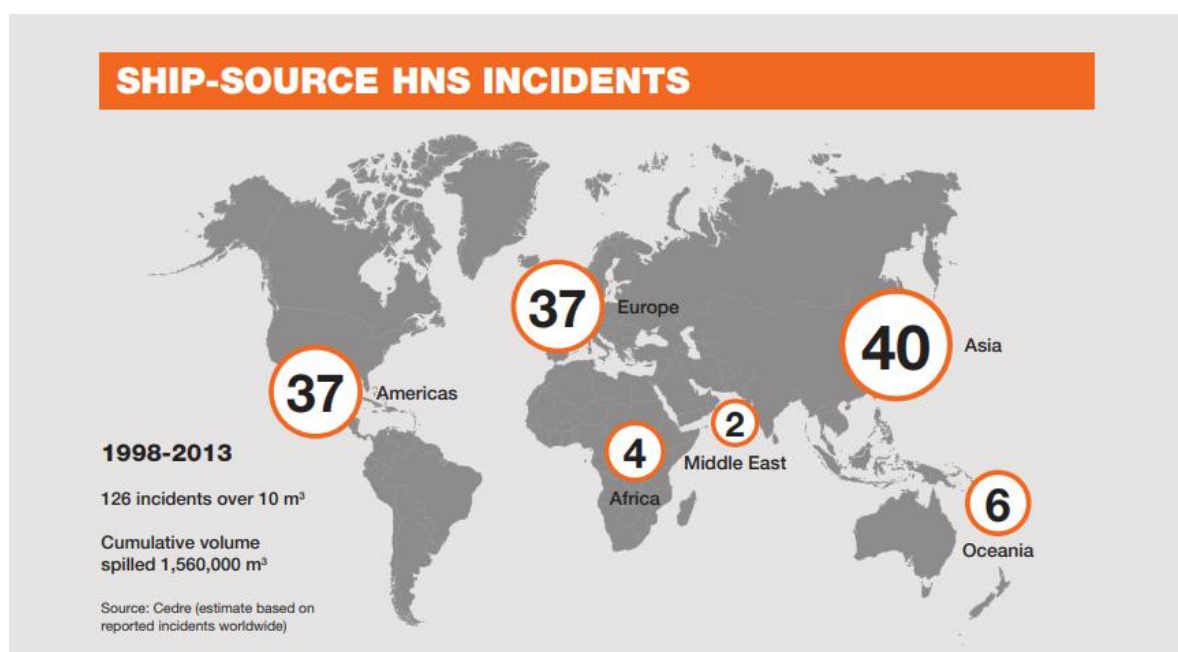
One factor affecting spilled HNS that the SEBC method does not take into consideration is the flow characteristics of spilled liquid chemicals, as indicated by the viscosity of the liquid material. Density is crucial to the behavior of fluid because it controls the dispersion of the liquid component. Low viscous liquids spread more rapidly than highly viscous liquids in a thin liquid layer across the water surface. The viscosity of all liquid HNS transported in bulk is between diesel and gasoline. Numerous HNS are pure, distinct chemical

¹³⁵ See < www.hns-ms.eu/result/85 > Accessed on 25 October 2021

¹³⁶ See < www.hnsconvention.org/the-convention/ > Accessed on 25 October 2021

compounds that evaporate at a given rate under specific conditions without impairing the leftover liquid's solubility. Almost all HNSs lack a chemical component that stabilizes, rather than increases, the viscosity of water-in-oil emulsions.

Image: Ship-source HNS incidents since 1998 to 2013



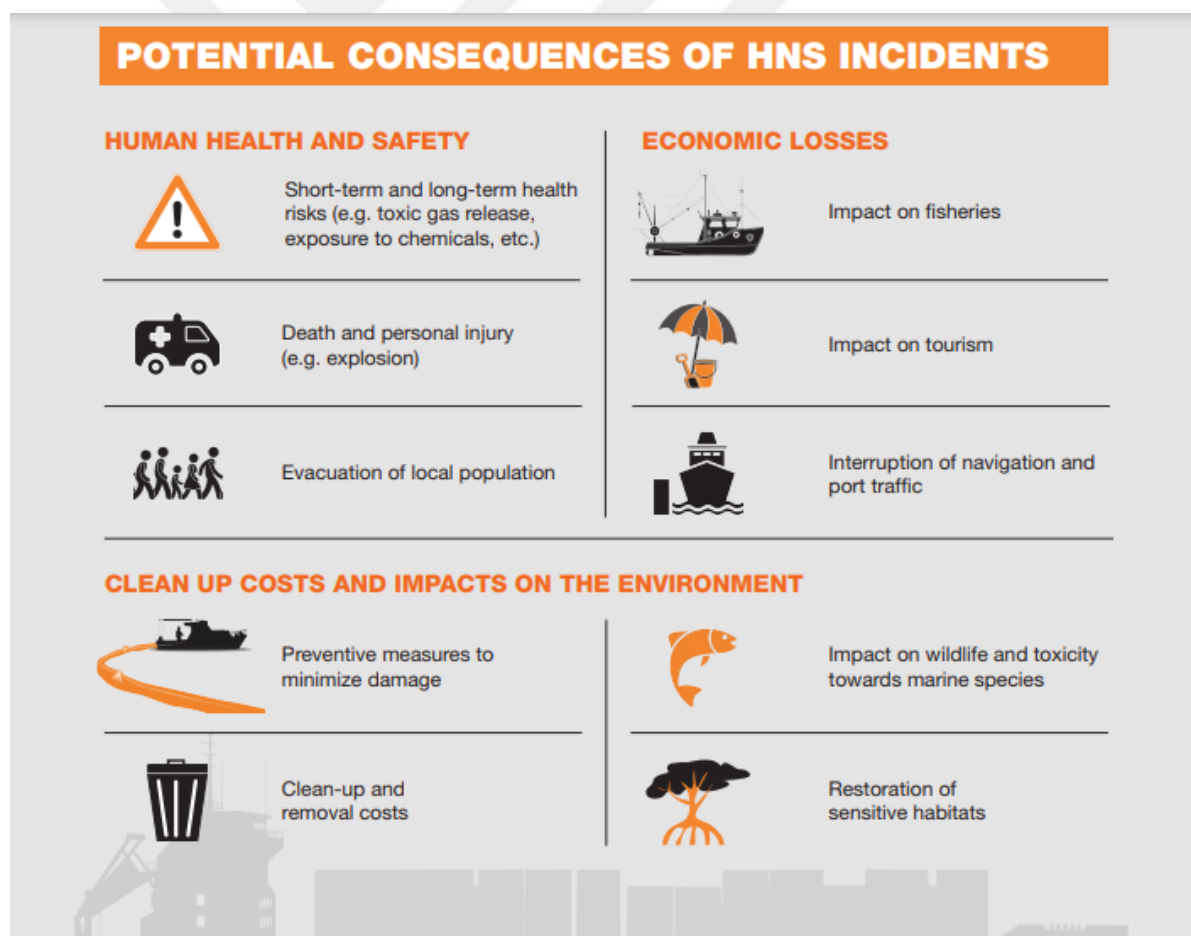
Source: Cedre

Today, merchant vessels transport a diverse spectrum of HNSs daily, and these chemicals possess various qualities that can mix if spilled. Thus, the spilled HNS may exhibit many features simultaneously - it may float on the water's surface while also evaporating and dissolving.

The most severe mishap, depending on this fact, occurs when a vessel transports many HNSs. Fortunately, occurrences involving numerous packaged dangerous substances are becoming increasingly rare in the modern-day. However, the chance of such an accident occurring at sea is not nil.

The greatest threat of a hazardous catastrophe occurs along the sea lanes that transport the preponderance of chemicals in unfavorable conditions (congestion, inclement weather) and ports. Understanding the environmental threats posed by HNSs is crucial - especially given that the repercussions of oil spills are well-known. There is currently a shortage of studies on the effects of HNSs on the marine ecosystem, and the meager information on HNS ecotoxicology is primarily obtained from experimental investigations with freshwater animals.

Image: *Ecological consequences of HNS incidents*



Source: IMO

As a result, the ecological consequences of HNSs on the maritime ecosystem are rarely known, forming it difficult to forecast their affects and develop contingency strategies. The comprehensive categorization of scientific heavy metal contamination information for the marine ecosystem should be a significant concern in responding to HNS-related accidents. Its clean-up and restoration also cost too much. If the 2010 HNS Convention comes to enforce, the aforementioned accidents may reduce.

C) ADVANTAGES OF THE 2010 PROTOCOL

The 2010 HNS Convention establishes international standards for protecting property, lives, and the environment in the marine sector, with a particular emphasis on the safe movement of hazardous items and communication. Although provisions for compensating oil pollution have existed in the past, this convention is the first to do so in the case of dangerous substances.

It adheres to a recognized compensation mechanism in the international transportation of hazardous materials. The Convention establishes two mechanisms for ensuring compensation; if one fails, the other will compensate. Moreover, it will launch a separate fund mechanism for this purpose.

The HNS Fund, established as the second tier of compensation, will be governed by an Assembly comprised of representatives from all state parties. As a result, it may be argued that the parties will control it directly.

The convention provides for strict liability, including some exceptions for shipowners, which is expected to reduce the rate of accidents at sea. The HNS Convention will also indirectly play a role in maintaining the marine ecosystem. “The shipping, oil, gas, chemical, petrochemical and other HNS industries are committed to paying such compensation through an international system:

- Shipowners are held strictly liable up to a maximum limit of liability for the cost of an HNS incident.
- Shipowners are required to have insurance that is State certified. Claimants may take action directly against the insurer.
- Receivers of bulk HNS cargoes contribute to an international compensation fund administered by States.
- Contributions will be based on the actual need for compensation.
- Up to SDR 250 million is available per incident.”¹³⁷

Claimants can normally only take legal action in a court in the State Party in whose territory or waters the damage occurred. In this context ‘waters’ means the Territorial Sea or the Exclusive Economic Zone (EEZ), or an equivalent area, of a State Party. This also applies to legal actions against any provider of insurance or financial security for the owner's liability, i.e., the shipowner’s insurer. Different rules apply if damage other than pollution damage to the environment occurs exclusively beyond the territorial seas of States Parties¹³⁸.

Actions against the HNS Fund should be brought before the same court as actions taken against the shipowner. However, if the shipowner is exempted from liability, or for another reason no shipowner is liable, legal action against the HNS Fund must be brought in a court which would have been competent had the shipowner been liable. Where an incident has occurred and the ship involved has not been identified, legal action may be brought against the HNS Fund only in States Parties where damage occurred¹³⁹.

This Convention establishes for strict liability as well as an outstanding provision that exempts all of the following persons from liability, but only if they have caused the damage intentionally or recklessly or their acts.

- (a) “the servants or agents of the owner or the members of the crew.

¹³⁷ www.cdn.imo.org/localresources/en/MediaCentre/HotTopics/Documents/HNS%20ConventionWebE.pdf Accessed on 30 October 2021

¹³⁸ Article 38 of the 2010 HNS Convention

¹³⁹ Article 39 of the 2010 HNS Convention

- (b) the pilot or any other person who, without being a member of the crew, performs services for the ship.
- (c) any charterer (howsoever described, including a bareboat charterer), manager or operator of the ship.
- (d) any person performing salvage operations with the consent of the owner or on the instructions of a competent public authority.
- (e) any person taking preventive measures”¹⁴⁰.

The HNS Convention has the potential to be more compensatory than all of the other related conventions from all of the other countries combined in terms of compensation. Moreover, the HNS convention states higher compensation than the United States Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)¹⁴¹.

D) DEFICIENCY OF THE 2010 PROTOCOL

Like other international conventions, the 1996 HNS Convention has some criticisms and negative aspects:

1. According to the jurisdiction of this convention, it relates only to accidents that occur while carrying dangerous goods at sea. As a result, seaports and terminals have been exempted from the convention. Any pollution in these areas exceeds its responsibility. However, Article 3 is based on the premise that seaports or terminals located within

¹⁴⁰ Article 7 (5) of the 2010 HNS Convention

¹⁴¹ The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, \$1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA):

- established prohibitions and requirements concerning closed and abandoned hazardous waste sites.
- provided for liability of persons responsible for releases of hazardous waste at these sites; and
- established a trust fund to provide for cleanup when no responsible party could be identified.

the territorial sea of the State Party and are within 200 nautical miles where the territory is not specified will not be exempt.

2. The 2010 HNS Protocol simply increased the shipowner's responsibility limit for package HNS cargo; therefore, the HNS receivers' risk remains proportional to the shipowners', it's problematic. But this researcher does not consider it a problem, as a review of horrific accidents while transporting dangerous goods in the past has shown that most of the accidents are due to the ship owner's negligence. In this case, it is reasonable to increase the ship owner's liability compared to HNS Receiver.
3. The shippers and their insurers stringent liability regime results in low HNS limitations. Also, since the HNS Fund will levy HNS recipients based on prior year receipts, the industry may likely levy when an HNS incident occurs.

There was a consensus among countries that the reporting for packaged HNS Goods needed to be modified since it imposed an enormous administrative burden on states for minor incidents involving packaged HNS Goods. We have observed further heinous HNS accidents in this chapter. These are incidents involving bulk and packaged HNS. As a response, states proposed exempting bundle Goods from their obligation to participate in the liability coverage system's Second Tier by increasing that degree of shipowner liability under the First Tier.

Another point to note is that the European Union has not been able to ratify the Convention as a regional organization on behalf of the member states. However, because it conflicts with EU Regulation 44/2001¹⁴² and Article 36-40 of the 1996 HNS Convention, they could be ratified as a regional convention by Article 19/1 of the 2002 Protocol to the 1974 Athens Convention. However, as Denmark has done, EU states can qualify as single states.

¹⁴² See < www.eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32001R0044 > Accessed on 30 November 2021

E) RATIFICATION OF THE 2010 PROTOCOL AND ENTRY INTO FORCE

Article 46 of the Convention specifies the conditions for entered into force, stating that the Convention will take effect when:

- a) “At least 12 states, including four States each with not less than 2 million units of gross tonnage, have expressed their consent to be bound by it, and
- b) The Secretary-General has received information in accordance with article 43 that those persons in such States who would be liable to contribute pursuant to article 18 paragraph (1) (a) and (c), have received during the preceding calendar year a total quantity of at least 40 million tons of cargo contributing to the general account.”¹⁴³

As previously stated, this article affected the HNS Convention’s ratification process by failing to meet the specified requirements.

Even the the 2010 HNS Convention has been ratified by the following five states: Norway (21 April 2017), Canada and Turkey (23 April 2018), Denmark (28 June 2018), and the most recent state to ratify was South Africa in 2019 (15 July 2019). These five states represent 3.54% of world tonnage. At least twelve states must ratify the Convention in order for it to enter into force 18 months after these criteria are met. The IMO stated in July 2020 that ‘a number of other States have indicated strong progress toward ratification in recent months, and it is thus anticipated that further instruments will be submitted in the near future’

¹⁴³ Article 46 of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996

regarding the 2010 HNS Convention¹⁴⁴. But unfortunately, it did not happen. Parts of the Convention are subject to the EU's exclusive maritime transport jurisdiction. The European Union's Council of Ministers approved two Council Decisions in December 2015, allowing EU Member States to ratify or accede to the 2010 HNS Convention within four years if practicable. The European Parliament announced in April 2016 that it wants to make it mandatory for the Member States to ratify the Convention within four years after the Council decision's entrance into force. The European Community Shipowners' Association (ECSA), which firmly supports entry into force of the Convention, applauded the Parliament's official adoption of the Council Recommendations in April 2017¹⁴⁵.

As a result, the HNS Convention, a critical set of regulations that completes the jigsaw puzzle by providing victims of damage caused by HNS goods carried onboard ships with access to a quick and effective compensation mechanism, may enter into force in the not-too-distant future¹⁴⁶.

According to the spokesman of the European Commission, the Convention, and the 2017 Council Decision, which urged the EU Member States to ratify the Convention by May 2021, are extremely important documents. The Commission also provided its assistance in this matter to the extent that it was able. The HNS Convention is an important part of the international maritime liability and compensation regime as it establishes a comprehensive scheme covering pollution damage from hazardous and noxious substances carried by ships. The shipping industry strongly supports its ratification¹⁴⁷. But unfortunately, it did not happen. We will see this for sure in the coming years hopefully.

¹⁴⁴ www.skuld.com/topics/environment/hns-convention-2010/insight-hns-convention Accessed on 22 October 2021

¹⁴⁵ www.tc.canada.ca/en/corporate-services/policies/overview-2010-hazardous-noxious-substances-convention Accessed on 22/10/2021

¹⁴⁶ www.skuld.com/topics/environment/hns-convention-2010/insight-hns-convention Accessed on 22 October 2021

¹⁴⁷ This statement made by Martin Dorsman, Secretary General of The European Community Shipowners' Association (ECSA). See < www.ecsa.eu/news/ratification-hns-convention-matter-urgency > Accessed to 22 November 2021

To date, Denmark is the only EU Member State that ratified the Convention and today we heard why it considered ratification very important and how it had prepared for ratification. We were encouraged to hear today that a number of other EU Member States including France, Netherlands and Belgium, plan to ratify soon, we welcome this important development and encourage all other Member States to progress their efforts to ratify the Convention as soon as possible. In this way the EU will lead by example and enable the Convention's entry into force. This is important as the shipping is the most international of industries and it needs global rules and a level playing field¹⁴⁸.

The United States has argued that the convention should not be ratified since it already has a similar law that provides additional protections, including compensation, called the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). However, upon critical examination, this law reveals numerous limitations, which will be accessible once again during the HNS Convention. For example, although necessary in the HNS Convention, crude oil has been excluded from the CERCLA. Therefore, where more than 90% of commercial trade is conducted by sea, despite domestic law, the United States must ratify an international uniform convention, the 2010 HNS Convention.

2010 HNS Protocol shall be open for signature at the Headquarters of the Organization from 1 November 2010 to 31 October 2011, and then be available for joining. States can sign at the end of this period, with or without reservation, or states can choose to join at any point in the future¹⁴⁹.

After the following requirements are fulfilled, “the Protocol will enter into force 18 months later:

1. At least twelve states, including four states each with not less than 2 million units of gross tonnage, have expressed their consent to be bound by it; and

¹⁴⁸ This statement made by Viggo Bondi, Chairman of The European Community Shipowners' Association (ECSA) Legal Advisory Committee.

¹⁴⁹ Article 20 of the 2010 HNS Protocol

2. The Secretary General has received information in accordance with article 20, paragraph 4 and 6 that those persons in such States who would be liable to contribute pursuant to article 18, paragraph 1 (a) and (c) of the Convention, as amended by this Protocol, have received during the preceding calendar year a total quantity of at least 40 million tons of cargo contributing to the general account”¹⁵⁰.

At the Diplomatic Conference, the delegates also examined the conditions for entrance into force at the time. In the paper, they argue that the 40 million tones referred to in the passage should be increased to between 60 and 70 tones. Additionally, the delegates requested to decrease the time between the entrance into force and the start of implementation from Eighteen to twelve months. Unfortunately, this was rejected because preparation for enforcing and collecting information and other necessary activities will take time.

At this time, just five countries including Denmark, has signed the Protocol to ratify the Convention’s 2010 HNS Protocol. Because the Protocol and the Convention should be regarded as a masterpiece of single document, whenever a nation becomes another signatory, it automatically becomes a member to the entire Convention, without any further action. The 2010 HNS Convention expresses this in its article 18. In addition, Article 18 says that The Convention and this Protocol shall, as between the Parties to this Protocol, be read and interpret together as one single instrument. Articles 1 to 44 and Annexes I and II of the Convention, as amended by this Protocol and the annex thereto, together with articles 20 to 29 of this Protocol (the final clauses), shall *mutatis mutandis* constitute and be called the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 2010 (2010 HNS Convention). Articles 20 to 29 of this Protocol shall be renumbered sequentially with the preceding articles of the Convention. References within the final clauses to other articles of the final clauses shall be renumbered accordingly¹⁵¹.

¹⁵⁰ Article 20 of the 2010 HNS Protocol

¹⁵¹ Article 18 of 2010 HNS Convention

Additionally, The International Oil Pollution Compensation Funds Assembly, formed by the 1992 Funds Convention, was tasked with specific functions, such as administrative responsibilities connected to establishing the HNS Fund, following the 2010 HNS Convention, which the United Nations General Assembly ratified. The 2010 HNS Fund will also be supported by this grant, which will be established in 2010. Eventually, the IOPC Assembly hosted the inaugural session of the 2010 HNS Fund Rally, which representatives from around the world attended.

F) FUTURE DEVELOPMENT

A new method was required to ensure that nations had sufficient financial incentives to meet their respective reporting commitments from the outset. A consequence of this is that the 2003 International Organization for Petroleum Cooperation Fund established a mechanism that makes it difficult to obtain compensation for contamination caused by HNS other than oil that occurred in a state that failed to disclose its contributing cargo. As a result of the deployment of this system, conditions are required to comply with reporting obligations.

An additional obstacle to the HNS Convention's success was the requirement that LNG cargo owners make a significant contribution to the LNG account, a source of contention between the parties. States determined that, given the industry's development, it would be more acceptable to require the LNG beneficiary, rather than the owner, to contribute to the same LNG Fund. A similar fund was established at the 1996 HNS Convention, which is analogous to this one. Governments did not give enough incentives for cargo to be declared, which was the third reason. It was critical to include a mechanism for reporting obligations in the Convention in order to ensure that it functioned properly.

According to Peter Wetterstein, there are some distinctive trends in maritime environmental impairment liability: strict liability, channeling of liability to shipowners, compensation not only for personal injury and property damage but also for broadly defined

environmental damage, compulsory liability insurance and direct action, and complementary compensation based on money from industry¹⁵². These trends have been reflected in the 2010 HNS Convention, which includes rules that allow administrative and personal respondents to recoup the cost of contributing to, and injuries incurred from, HNS occurrences across:

- a) the strict liability of the ship-owner.
- b) an obligation for the ship-owner to maintain insurance coverage and the right to bring a direct action against the ship owner's insurer; and
- c) In circumstances where compensation claims exceed 100 million SDR, an HNS Fund will prorate the compensation claims.

As a result of the 2010 HNS Convention, globally consistent guidelines have been established to ensure appropriate, fast, and proper reimbursement for those who have suffered from HNS accidents. The new Protocol appears to improve the international legal framework governing maritime fatalities involving dangerous and toxic chemicals. The Protocol may likely contribute to the overthrow of opposition in particular maritime nations by amending specific procedural regulations.

Ship-owners are held responsible for their actions under a strict liability structure adopted by the 1996 HNS Convention. Survivors of HNS accidents gain from strict liability since it reduces the time to pursue legal action and expends transactions of reasonable demands. As a result of strict liability, compensation claims can be made even when the ship's owner cannot be recognized, enhancing the HNS Convention's efficacy. Taking immediate action against the ship owner's insurance company will allow for a quick resolution or lawsuit.

Shipping is regarded foremost efficient way to carry large quantities of chemicals, LNG, and LPG over long distances. The IMO sees the 2010 HNS Convention as the final

¹⁵² Peter Wetterstein, Trends in Maritime Environmental Impairment Liability, L.M.C.Q. 230, 245 (1994).

component in completing a global system for hazmat and dangerous materials other than oil. Laws governing jurisdiction, recognition, and execution of judgments and arbitration rulings must be uniform. Uniformity ensures fair treatment of claims, minimizes forum shopping, and prevents the same incident from being sued in many courts and jurisdictions at the same time. It is not reasonable to assume 100% uniformity. Therefore, tensions between state parties may arise, which could hinder the [HNS] regime from functioning correctly, according to former IOPC Funds Director and CEO Mans Jacobsson. By implementing the HNS Convention, IMO provided global players with uniform implementation provisions. States must finish the job¹⁵³. The Correspondence Group is encouraging states to collaborate and to coordinate efforts to trigger the entry into force criteria. The target ratification date is 2021 which would allow the Protocol to enter into force in 2024. The International Group of P&I Clubs is monitoring the position and members will be notified as and when the entry into force date is known¹⁵⁴.

¹⁵³ Mans Jacobsson, The HNS Convention and its 2010 Protocol, in *Pollution at Sea: Law and Liability* 23, 56, 93 (Baris Soyer & Andrew Tettenborn eds., 2012)

¹⁵⁴ See < www.skuld.com/topics/environment/hns-convention-2010/insight-hns-convention > Accessed on 22/10/2021

CONCLUSION

Shipping is a vital part of the global economy, and it is widely regarded as the most environmentally benign method of transporting large amounts of commodities across long distances. Even yet, if an incident occurs, it can have a substantial environmental impact, causing considerable harm to third parties.

The world community became increasingly aware that the harm produced by HNS in areas other than oil needed to be addressed through rules. As a result, several worldwide safety regulations have been formed. However, there was still no international liability scheme for damages incurred by HNS that were not related to oil. This thesis examined the many components of the HNS Convention and the challenges that governments faced in gaining international acceptance for it.

After analyzing the first 1996 HNS Convention, the world community concluded that the liability scheme had a number of drawbacks. The majority of these issues are procedural. The 1996 HNS Conventions and its funding structure are substantially more sophisticated than the 1992 IOPC, modeled after, as shown in the preceding chapters. The Convention does not specify how the Reasonable Measure, Economic Loss, Cost of Preventive Measure will be determined in the case of environmental damage.

Nonetheless, it is a critical convention tool from the standpoint of substantive law, which is the subject of this argument. According to the jurisdiction of this Convention, it relates only to accidents that occur while carrying dangerous goods at sea. As a result, seaports and terminals have been exempted from the Convention. But this issue was considered by the Legal Committee and Diplomatic Conference. In this regard, article 3 of the 1996 HNS Convention will be applied.

This Convention fills three loopholes in international maritime law: It supplements existing conventions that deal with dangerous material transportation. It is also a natural extension of other accords addressing marine pollution. Finally, preventive measures against

this form of pollution are made more vital. Strict punishment and compensation systems encourage people more to follow safety rules.

The 2010 HNS Protocol's adjustment of the first procedural concerns required the Convention's success. However, the Protocol's proposal to exempt recipients of packaged HNS Goods from contributing to the HNS Funds streamlined the entire system. In particular, despite the removal of the packaged HNS from the definition of contributory load, the increase in the liability limits of the owner in the events caused by these loads and the acceptance of the contributor of the LNG account as the buyer following other reports are clear indicators of this understanding of balance and reconciliation.

The only concern is that such a procedure is suitable to compensate victims of HNS accidents quickly and efficiently. Because the 1996 HNS Convention guarantees two-tier compensation, if the first tier is not covered, the second tier means compensation can be collected through the HNS Fund. In any case, compensation will be provided to the victim.

The HNS Fund, established as the second tier of compensation, will be governed by an Assembly comprised of representatives from all state parties. As a result, it may be argued that the parties will control it directly. So, it will be fair and uniform.

The Convention provides for strict liability, including some exceptions for shipowners, which is expected to reduce the rate of accidents at sea. The 1996 HNS Convention will also indirectly play a role in maintaining the marine ecosystem. Since there is a strict liability regime, shipowners, cruisers, and others will be concerned about maintaining the maritime environment. This will reduce the number of accidents. The strict liability policy's guiding premise is to ensure safe shipment. Due to the strict liability approach, taking action will be more accessible. Because even if the ship's owner is not found, action against his insurance company can be initiated.

In the event of oil pollution and causing economic loss or prevention, cost determination can be prevailed by case law. We know that the judicial decision, case law, or international court judgment is one of the few sources of international law. Such an HNS accident case can be used to determine the damage to the environment or the cost of the prevention system resulting from an accident at sea.

Therefore, where more than 90% of commercial trade is conducted by sea, despite domestic law, the United States must ratify an international uniform convention, the 2010 HNS Convention. However, the question arises why America is not a member state of many international conventions. Research shows that the United States is not a party to the Convention on all matters already covered by domestic law. For example, the reason for not signing the HNS Convention is that the United States already has a similar law that provides additional protection, including compensation, called the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

The new definition of HNS is accurate since it considers the current developments. It is not appropriate to refer to the 1996 version of the IMDG Code only in terms of bulk solid cargoes. As an opportunity, it would have been more appropriate to base the current version of the IMDG Code, which was prepared to consider the latest developments in terms of maritime safety, at the Diplomatic Conference.

It is an important convention for environmental protection and victim compensation; it provides more compensation than other nations legislation. The IMO can play a role in implementing this Convention through international coordination programs. Conduct joint programs with universities in different countries, encourage students to write articles about the Convention, and, above all, request states to ratify the Convention.

To keep the work of the HNS correspondence group going, publish a brochure, HNS scenario, and a leaflet containing the benefits of the Convention. The European Union must take steps to implement this law. Although the European Community Shipowners Association has been working since the beginning, the EU has a strong role to play.

This researcher believes that the Convention will eventually enter into effect, given the new Protocol addresses the majority of the 1996 HNS Convention's significant concerns. The HNS Convention is expected to enter into force in the not-too-distant future, following the resolution of diplomatic, political, and scientific squabbling. Denmark's signature, which is still subject to ratification, reintroduces hope for restoring the 2010 HNS Convention.



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ABSTRACT

This study focuses on a comparative study of regulations on the hazardous and noxious substances pollution convention 2010 HNS Protocol to the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea 1996 (1996 HNS Convention). The emphasis is on liabilities of hazardous and noxious substances other than oil that can, if released, threaten human life, the environment, or property.

The author of this dissertation study has analyzed, as a keyword ‘hazardous and noxious substances’, two principal HNS pollution regulations; first of all, the author discusses the background, scope of the 1996 HNS Convention, mainly on the compensation for the damages caused to HNS by sea. The author then reviewed the 2010 HNS Protocol extensively. It’s new features, necessity, and adoption.

The subject of hazardous goods relating to transport by sea is increasingly relevant and essential, affecting safety and the environment. These include responsibility for sea transportation, and hazardous materials are an internationally and nationally complex area of law.

Pollution and the environment are the main subjects for maritime researchers in the 90s. After the Torrey Canyon incident and the International Convention on Civil Liability for Oil Pollution Damage 1969, oil pollution has become an everyday issue for maritime lawyers. Pollution of oil today is only one of many environmental concerns.

Foreign trade, offshore mining, and the danger of polluting the marine environment grew significantly after the Second World War. In the early 1970s, transport of dangerous and noxious substances grew tremendously. Several steps were developed by States to avoid such incidents of marine pollution. For a long time, the IMO has been dealing with drafting a General Convention on Hazardous and Noxious Substances (HNS), eventually coming into force with the update of the 2010 HNS Protocol.

Together with this, the international community also considered the establishment of coercive policies, such as liability schemes. However, creating a civil liability regime for emissions caused by hazardous and noxious substances other than oil emitted by tankers was not regarded as a matter of urgency.

For the reasons mentioned, the 2010 HNS Protocol was made more exclusive after the 1996 HNS convention. Several new features are introduced, including strict liability and HNS Fund. This thesis will discuss those issues and address the marine environment, including future development.

This part of the research was discussed by reading, analyzing, and synthesizing scholarly articles, journals, papers, treaties, conventions, protocols, and international conference reports on maritime pollution liability and generally ocean governance.

Conclusions are drawn from the chapter summaries, highlighting critical concerns in light of the study findings, guidelines, and future development suggestions.

Therefore, this study would concentrate on How far the 2010 HNS Protocol to the 1996 HNS Convention strengthens the current legal structure for responsibility for maritime accidents involving dangerous and noxious substances.

Keywords: Maritime Liability, Marine Accident, Hazardous and Noxious Substances, Compensation Mechanism, IMO Convention

ÖZET

Bu makale, 1996 tarihli Tehlikeli ve Zararlı Maddelerin Deniz Yoluyla Taşınmasına İlişkin Zararın Tazmini ve Sorumluluğuna İlişkin Uluslararası Sözleşmenin 2010 HNS Protokolü'nün tehlikeli ve zararlı maddeler kirliliği sözleşmesine ilişkin düzenlemelerin karşılaştırmalı bir çalışmasına odaklanmaktadır (1996 HNS Sözleşmesi). Vurgu, serbest bırakıldığında insan hayatını, çevreyi veya mülkü tehdit edebilecek, petrol dışındaki tehlikeli ve zararlı maddelerin yükümlülükleri üzerindedir.

Bu tez çalışmasının yazarı, 'tehlikeli ve zararlı maddeler' anahtar kelimesi olarak iki temel HNS kirlilik yönetmeliğini analiz etmiştir; her şeyden önce, yazar, 1996 HNS Sözleşmesinin arka planını, kapsamını, özellikle de HNS'ye deniz yoluyla verilen zararların tazminini tartışıyor. Yazar daha sonra 2010 HNS Protokolünü kapsamlı bir şekilde gözden geçirdi; yeni özellikler, gereklilik ve benimseme.

Deniz yoluyla nakliye ile ilgili tehlikeli mallar konusu, güvenliği ve çevreyi etkileyen, giderek daha alakalı ve gerekli hale gelmektedir. Bunlar, deniz taşımacılığı sorumluluğunu içerir ve tehlikeli maddeler, uluslararası ve ulusal olarak karmaşık bir hukuk alanıdır.

Kirlilik ve çevre, 90'lı yıllarda denizcilik araştırmacılarının ana konularıdır. Torrey Canyon olayından ve 1969 tarihli Petrol Kirliliği Zararına İlişkin Hukuki Sorumluluk Uluslararası Sözleşmesinden sonra, petrol kirliliği denizcilik avukatları için günlük bir sorun haline geldi. Günümüzde petrol kirliliği, birçok çevresel kaygıdan yalnızca biridir.

Dış ticaret, açık deniz madenciliği ve deniz çevresini kirlletme tehlikesi, İkinci Dünya Savaşı'ndan sonra önemli ölçüde arttı. 1970'lerin başında, tehlikeli ve zararlı maddelerin taşınması muazzam bir şekilde büyüdü. Bu tür deniz kirliliği olaylarını önlemek için Devletler tarafından çeşitli adımlar geliştirilmiştir. IMO, uzun süredir Tehlikeli ve Zararlı Maddeler (HNS) hakkında bir Genel Sözleşme taslağı hazırlamakla uğraşüyor ve sonunda 2010 HNS Protokolünün güncellemesiyle yürürlüğe giriyor.

Bununla birlikte, uluslararası toplum, sorumluluk planları gibi zorlayıcı politikaların

oluřturulmasını da deęerlendirdi. Ancak, tankerlerin yaydıęı petrol dıřındaki tehlikeli ve zararlı maddelerin neden olduęu emisyonlar iin bir hukuki sorumluluk rejimi oluřturulması acil bir konu olarak grlmedi.

Bahsedilen nedenlerle, 2010 HNS Protokol, 1996 HNS szleşmesinden sonra daha zel hale getirildi. Kusursuz sorumluluk ve HNS Fonu dahil olmak zere birok yeni zellik tanıtıldı. Bu tez, bu sorunları tartıřacak ve gelecekteki geliřmeler de dahil olmak zere deniz ortamını ele alacaktır.

Arařtırmanın bu kısmı, deniz kirlilięi sorumluluęu ve genel olarak okyanus ynetiřimi zerine bilimsel makaleler, dergiler, makaleler, anlařmalar, szleşmeler, protokoller ve uluslararası konferans raporları okunarak, analiz edilerek ve sentezlenerek tartıřıldı.

alıřma bulguları, kılavuzlar ve gelecekteki geliřtirme nerileri ıřıęında kritik endiřeleri vurgulayan blm zetlerinden sonular ıkarılmıřtır.

Bu nedenle, bu alıřma, 1996 HNS Szleşmesine Ek 2010 HNS Protokolnn, tehlikeli ve zararlı maddelerin karıřtıęı deniz kazalarının sorumluluęuna iliřkin mevcut yasal yapıyı ne kadar glendirdięine odaklanacaktır.

Anahtar Kelime: Deniz Sorumluluęu, Deniz Kazaları, Tehlikeli ve Zararlı Maddeler, Tazminat Mekanizması, IMO Szleşmesi