UiO : Faculty of Law
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"Liability of P&I Clubs for Pollution Damage and Challenges for a Sustainable Insurance"

Candidate number: 505

Submission deadline: 01.12.2021

Number of words: 17985

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ACKNOWLEGMENTS

This thesis would not have been possible without the guidance of my supervisors who contributed with their valuable assistance in the preparation and completion of this research. First and foremost, I would like to take this opportunity to express my sincere gratitude to my supervisor Hans Jacob Bull, Professor at the Scandinavian Institute of Maritime Law, whose encouragement, guidance and support from the initial to the final level enabled me to develop the necessary skills to write my thesis and taught me to trust myself and my thoughts, even when the road was tough. His academic expertise in the field of marine insurance and his unvaluable advice and continuous patience allowed me to conduct the thesis. Secondly, I would like to give my special thanks to my assistant supervisor, Mads Schjølberg, Senior Associate at BAHR, who tried his best to provide me updated knowledge and insightful suggestions to improve my thesis. I am deeply thankful for his support and for being a source of inspiration. Finally, I am extremely grateful for the support of my family, as it would be impossible for me to complete my studies without them.

ABBREVIATIONS

BOPC……International Convention on Civil Liability for Bunker Oil Pollution Damage

BWMC…… Ballast Water Management Convention

CLC……..Civil Liability Convention

CMI……. Comité Maritime International

EEZ……. Exclusive Economic Zone

ESG……..Environmental, Social and Governance

EU..……..European Union

FSU……..Floating Storage Units

FPSO……Floating, Production, Storage and Offloading units

GHG……Greenhouse Gases

HNS…… International Convention on Hazardous and Noxious Substances by Sea

IGA…….International Group of Agreement

IMO……International Maritime Organization

IOPC…….. International Oil Pollution Compensation

IPCC.....International Panel on Climate Change

LLMC…….Convention on Limitation of Liability for Maritime Claims

MARPOL……Convention for the Prevention of Maritime Pollution from Ships

NMC……Norwegian Maritime Code

OPA…….Oil Pollution Act

PA……Paris Agreement

P& I ……Protection and Indemnity

PSI……...Principles for Sustainable Insurance

SDR ……Special Drawing Rights

STOPIA ……..Small Tanker Oil Pollution Indemnification Agreement

TOPIA…….Tanker Oil Pollution Indemnification Agreement

UNCLOS…….United Nations Convention on the Law of the Sea

UN……..United Nations

US……United States

1. INTRODUCTION

1.1 Background

Before the twentieth century, there was widespread belief that no amount of activity and waste could damage our vast oceans. The advent of supertankers taught us otherwise through a number of high-profile casualties causing devastating damage to the marine environment. Those casualties demonstrated that pollution liabilities are complex, costly and difficult to manage.

In response, national, regional and international regulators provided conventions and regulations imposing stringent rules on ship-source marine pollution. These international regimes could not have reached such a level of success without the cooperation of the insurers and P&I Clubs in particular, which proved to be instrumental in tackling and limiting pollution damage. Each Group Club is an independent, not-for-profit mutual insurance association, providing cover for its shipowners against third party liabilities arising out of the use and operation of ships, sharing between them their large loss exposures and their respective expertise. The history of P&I Clubs is mostly reflected in the history of Pooling Agreement and IGA during 19th century that will be further discussed throughout the thesis.[1] The IGA operates as a forum for collecting and exchanging views between the Clubs on matters relating to shipowners' liabilities, and insurance of such liabilities, and provides a "collective industry voice" for the purposes of engaging with external stakeholders, including intergovernmental maritime organisations and the marine insurance, reinsurance industries.[2]

Today, a new challenge is on the agenda; a key question asked by shipowners, regulators and insurers alike is whether P&I Clubs can take on a similar role to that under current pollution regulations towards climate change by providing sustainable insurance.

1 Gold, Gard Handbook on P&I Insurance, p.116
2 <https://www.igpandi.org/about>[7.10.2021]

1.2 The topic and structure of this thesis

This thesis is a research paper concerning the liability and role of P&I Clubs in relation to pollution damage and how the P&I Clubs role can be carried forward to materially contributing towards climate change solutions through sustainable insurance.

The thesis is structured in three main chapters; first, in Chapter 2, I will start with an introduction on the international regulatory framework on pollution. I will further delve into the main pollution liability Conventions, namely CLC, BOPC, HNS. To achieve the principal objectives of the thesis, a comparative legal approach between the main pollution liability Conventions is held where comparison of the aforementioned Conventions is needed. The analysis of the International Pollution Compensation Funds follows due to the close cooperation of P&I Clubs with the Funds in the investigation of marine accidents and in handling the pollution claims. In addition, the example of the incorporation of the liability Conventions under the Norwegian Law will be discussed as the thesis is written under the Scandinavian Institute of Maritime Law. The very different approach taken by the US that is not a member of the Conventions requires a separate analysis within the chapter. Subsequently, other violations of international pollution Conventions, MARPOL and BWMC, will be discussed in terms of the P&I Insurance coverage. My personal intention in this chapter is to critically analyze the current international pollution framework, assess whether prompt and adequate compensation is provided for pollution damage under the liability Conventions and identify the corresponding legal problems of their enforcement.

Then, in Chapter 3, I will give an analysis of the key characteristics of P&I Clubs mainly in the context of pollution and the related Club Rules of pollution coverage. P&I Clubs have become proactively involved in all aspects of marine pollution and their experience is considerable due to the history of handling a large number of pollution claims. Focus will be placed on the mandatory coverage of pollution liabilities, including clean up expenses, costs for complying with governmental orders, liability to salvors and coverage for fines. Defenses on the part of the insurer to exercise subrogation claims will also be discussed. My aim in the third chapter is to review whether the P&I coverage for pollution risks is comprehensive to correspond to the international framework.

Third and finally, in Chapter 4, I will review of the concept of sustainable insurance and the clear international recognition of the need to mitigate the greenhouse gas emissions. As will be illustrated in the previous chapters, the P&I Clubs have taken responsibility to tackle the

challenge of oil pollution damage and currently they are expected to and already have taken action towards the new challenges of sustainability. The phasing out of oil has been in the spotlight and the development of the standards of sustainable insurance, which as soft law may not be legally binding yet, can strengthen the P&I Club's dedication to implement the UN sustainability standards and contribute to the goal of net-zero emissions. As decarbonization and net zero economy becoming increasingly concerned about the insurance industry's response to climate change, the insurance industry is one of the largest global industries that can play a leadership role in building climate-resilient economies and in accelerating the transition to net-zero emissions.

The aim of the final chapter is whether and to which extent there is a similar role for the P&I Clubs in tackling pollution liability and GHG emissions in order to effectively incorporate the UN Sustainable Goals and the Principles for Sustainable Insurance. Therefore, the last chapter includes the international response of insurance to GHG emissions, reviews the sustainability standards of the reports of P&I Clubs and incorporates the UN recommendations on insuring the climate transition in order to cement the sustainability standards in the marine insurance sector and provide a possible insurance coverage for climate change. The ambition is to stimulate readers to start thinking and developing new processes and services to efficiently cover the challenges of sustainability under the insurance policy.

2. INTERNATIONAL LAW ON POLLUTION LIABILITY

2.1 Introduction

As a result of the very high pollution claims that arose in the 1970's and 1980's, namely the 'Torrey Canyon' major pollution on the coasts of England, France and Channel Islands in 1967, the 'Amoco Cadiz' oil spill in the French coast in 1978 and 'the Exxon Valdez' grounding and spill in Alaska in 1989,[3] they alerted that the International Group of Clubs did not have the financial strength to fully compensate their members. Precisely, the 'Torrey Canyon' cost approximately US$8 million to clean up the pollution caused by the discharged approximately 120,000 tons of crude oil into the English Channel and contaminated approximately fifty miles of French coastline and 120 miles of Cornish coastline[4] revealed deficiencies in existing international treaties and national laws to protect marine environments from oil pollution.

Shipping accidents continued to be among the biggest pollution sources, such as the 'Erika' that hit the coast of Brittany, France in 1999, the 'Prestige' off the coast of Spain in 2002, the international marine insurance industry agreed to a review of liability aspects relating to shipping and especially tankers.[5] Fairly recent was the accident of 'Mauritius'[6] in 2018, which did not fall under the CLC, since the spill was caused by bunker oil and the ship was not a tanker. The Government of Mauritius declared a state of environmental emergency and called for international help to mitigate the effects of pollution.

The CMI, responsible for the preparatory work leading to several international maritime Conventions, aimed to strike a satisfactory balance between the desire for greater certainty as to the types of recoverable claims arising out of oil pollution and the need to retain sufficient flexibility to deal with the many different types of claims in practice.[7]

3 Bull, supra note (3), p. 234

4 <http://news.bbc.co.uk/onthisday/hi/dates/stories/march/18/newsid_4242000/4242709.stm> [7.10.2021]

5 Williams, Gard-Guidance to the Rules, p.89

6 <https://unctad.org/news/mauritius-oil-spill-highlights-importance-adopting-latest-international-legal-instruments> [7.10.2021]

7 CMI, Guidelines on Pollution Damage, p.4

Of the most important international maritime Conventions that has been developed to tackle marine pollution is the CLC and BOPC, that regulate strict liability for shipowners and mandatory insurance to guarantee efficient compensation to the victims, as will be analyzed in the thesis. The Conventions have been periodically reviewed and the limits of liability in respect of pollution damages have been substantially increased. While liability conventions regulate liabilities and compensation, MARPOL focuses on pollution prevention regulating discharges of oil and other noxious liquid substances. Further, the scope of international regulation has been significantly broadened to encompass hazardous and noxious substances by sea (HNS) and the prevention of potentially harmful aquatic organisms via ship's ballast water (BWMC).

The Conventions are widely accepted and have been ratified by a great number of States,[8] with the notable exception of the US. Since marine pollution has become one of the shipping industry's most urgent problems, developing its own industry, it is crucial to examine the framework of the pollution liability.

2.2 The main pollution liability Conventions: CLC, BOPC, HNS

As it is well known, although there was awareness of some of the problems of marine pollution in the first half of the twentieth century, it was not until the 'Torrey Canyon' disaster that concern became severe. The evidentiary and legal problems of proving pollution damage, especially to the marine environment, the technical and scientific aspects of the problem and its limitation to compensation claims by States were hindrances to address the pollution liabilities.[9]

Since it was already evident that the traditional fault-based liability system was not suitable for marine pollution claims, the CLC was firstly signed creating a revolutionary strict liability system for oil pollution form tankers.[10] About two-thirds of the nations of the world have ratified the CLC 1992, except for the US, nevertheless 34 other States continue to apply the old CLC 1969[11]. The further discussion will focus on the CLC 1992.

8 IMO, Status of Conventions, <https://www.imo.org/en/About/Conventions/Pages/StatusOfConventions.aspx> [15.10.2021]

9 De La Rue, Liability for damage to the marine environment, p.10

10 IMO, <https://www.imo.org/en/About/Conventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-(CLC).aspx>[28.9.2021]

11 Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p.365

Subsequently, the International Group of P&I Clubs reported that there had been 595 bunker oil pollution incidents in the period 2000 to 2009, leading to considerable costs to the P&I Clubs.[12] Since the liability regime of the CLC applies only to tankers, bunkers on non-tankers, non-persistent bunkers and bunkers on many tankers in ballast fall outside the scope of CLC.[13] The BOPC, often also referred to as the 'Bunker Convention', was adopted to address this problem. The BOPC has many similarities with the compensation regime under CLC, but there is no overlap between the two Conventions, since the BOPC does not apply to pollution damage as defined in the CLC, whether or not compensation is payable.[14] At present, the number of contracting states of BOPC is 102.[15]

Regarding the third liability convention, the 1996 HNS, has not yet entered into force. However, IMO Member States are encouraged to accede to the Convention,[16] which will come into force 18 months after at least 12 states have adopted it, of which four must have a fleet of at least 2 million tons net. Once it enters into force, it provides a very important new liability regime with complexities for P&I Clubs. In 2010, an International Conference adopted a Protocol to the 1996 Convention in order to address the practical problems that had inhibited many States from ratifying the Convention, since HNS cargoes can be carried widely by most ships and there is no consensus in what qualifies such cargo as well as what quantities need to be carried.[17] The importance of the Convention lies on the fact that there are many substances highly dangerous due to their inflammable and explosive nature that they can cause damage to the environment. Such an example is the accident caused by the chemical tanker BOW MARINER, classed by Det Norske Veritas (DNV)[18], which caught fire, exploded and sank off the US East Coast in 2004 carrying 11,000 tons of ethanol, resulting in the death of 21 people, total loss of the ship, as well as significant marine pollution.[19]

12 ibid, p.384
13 ibid
14 Art. 4.1 BOPC
15 IMO, Supra note (10)
16 Tsimplis, Maritime Law, p.405
17 Gold, Gard Handbook on P&I insurance, p.432
18 NOU 2004:21, p.9
19 Falkanger, Bull, Brautaset, Scandinavian Maritime Law, p.255

2.3 Scope

Derived from the UNCLOS, the CLC applies to «pollution damage caused in the territory, including the territorial sea» and the «exclusive economic zone» of a Contracting State or, "if a Contracting State 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".[20] That signifies that the application of the CLC does not depend on whether the polluting ship is registered in a Contracting State or not, but what it matters is the place where the incident has taken place. Even if the damage occurred within the waters of a non-Contracting State or on the high seas, if a Contracting State has suffered oil pollution damage in its EEZ or territorial waters, the CLC will apply and will cover preventive measures wherever undertaken, including those in the jurisdictional zones of the non-Contracting coastal State or the high seas, provided that they prevented pollution damage to a Contracting State.

The BOPC and HNS Convention provides the same geographical scope of application as the CLC and follows its patterns in many aspects.[21] but in addition HNS covers exclusively damage, other than environmental contamination, which is caused outside the territory or territorial sea of a State Party, where it is caused by an HNS substance carried on board a ship registered in a State Party.[22]

The regime of the CLC applies to 'ships', which according to Art. 1.1 is "any vessel constructed or adapted for the carriage of oil in bulk as cargo", thus giving emphasis to the prerequisite that the ships have been approved for such carriage. There is no requirement of independent steering or self-propulsion and therefore including any design of ship carrying oil as bulk.[23] All structures of ships independent of their size are covered, but notably the obligation for compulsory insurance applies only for vessels with more than 2,000 tons. Vessels in ballast are not covered, except for residues of the previous oil cargo on board.[24] Under BOPC and HNS ship has a very broad meaning as "any seagoing vessel and seaborne craft, of any

20 Art II CLC
21 Art. 2.1 BOPC
22 Art. 3 HNS
23 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p.303
24 Gold, supra note (19), p.423

type whatsoever".[25] While the carriage of oil in bulk involves a relatively small number of specialized vessels, HNS cargos can be carried by most ships.[26] However, all the liability Conventions do not apply to warships or other government ships used for non-commercial activities.[27]

Another legal issue may arise whether the mobile offshore units are considered as "ships". Specifically, whether the definition "adapted for the carriage of oil in bulk as cargo" should be extended to floating storage units (FSU) and floating, production, storage and offloading units (FPSOs), the IOPC Consultation Group held that these units should not normally fall within the CLC.[28] However, there is a noteworthy diversity of that type of units and, hence, a case-by-case approach should be followed.[29] The International Group of P&I has taken the view that a craft constructed for production operations should not normally be considered as "ship" under CLC, but a craft should also not fall outside the scope of the definition on the mere ground that it is constructed for storage, and, thus, FSU or FPSOs should be considered "ships".[30]

All the liability Conventions cover the pollution damage incurred "outside the ship".[31] Particularly, the CLC covers damage by oil "carried in bulk as cargo". The definition of oil under Art. 1.5 of CLC, refers to "persistent" oil, including crude oil, fuel oil, heavy diesel oil and lubricating oil, meaning the type of oil that is slow to dissipate when spilled and requires cleaning up, whereas non-persistent oil, such as gasoline, light diesel oil and kerosene, tends to evaporate quickly and is not covered.[32] Liquified natural gas and liquified petroleum gas, as well as, other gas products are non-persistent oils and therefore not covered by the CLC.[33] The BOPC covers pollution by bunker oil, meaning "hydrocarbon mineral oil, including lubricating oil, used or intended to be used for the operation or propulsion of the ship, and any residues of such oil".[34] Damage by explosion or fire is not covered, but damage resulting from

25 Art. 1.1 BOPC and HNS
26 Gold, Supra note (19), p.432
27 Art XI CLC, Art. 4.2 BOPC, Art. 4.4 HNS
28 Mardsen and Gault, p. 366 and 2017 IOPC Guidance Document, IOPC/APR16/4/1, Annex 2
29 Gold, Supra note (19), p.428
30 Gold, Supra note (19), p.428
31 Art 2.6 (A) CLC, Art. 1. 9 (a) BOPC
32 Mandaraka, Modern Maritime Law and Risk Management, p.955
33 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p.302
34 Art. 1.5 BOPC

the bunker oil spill that followed an explosion or the fire is covered.[35] The HNS does not include pollution damage by persistent oil, since such damage may be covered under the scope of CLC, but it plugs the gap of CLC and covers the risks of fire or explosion of residues of oil remaining in tankers after discharge of their cargo, including loss of life or personal injury as well as loss of or damage to property.[36] The HNS covers a large number of substances, including liquified natural gas and liquified petroleum.[37]

The term "incident"[38] under CLC and BOPC should be read in conjunction with the terms "pollution damage"[39] and "preventive measures".[40] There is no need for an escape to occur, but before any oil spill take place, claims for expenses incurred in response to such a threat arising from the impairment of the environment are covered, "wherever taken" as long as they are "reasonable". HNS has similar provisions,[41] but it ensures adequate compensation for "damage" to persons on board or outside the ship, to property outside the ship, clean-up costs, economic losses and reinstatement measures caused by hazardous and noxious substances by maritime transport.[42]

In practice, the IOPC Funds Claims Manual has provided much guidance on the definition of pollution damage.[43] In order for a claim to be accepted by the IOPC Fund, which will be analyzed further in Chapter 2.8, it has to be proved that the claim is based on a real expense, that there was a link between the expense and the incident, and the expense was made for reasonable purposes. A uniform definition of "pollution damage" is essential for the functioning of the regime of compensation established by the conventions in order to avoid any risk for political tension between the Contracting States that could jeopardise the compensation system. The policy developed by IOPC Fund covers a range of claims, such the expenses for clean-up operations, preventive measures, only when reasonable measures are taken, damage to property, i.e. oil contaminating fishing boats and gears, yachts, piers, etc.

35 Reynolds, Supra note(35), p.337
36 An Overview of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances By Sea, 2010, <https://www.hnsconvention.org/the-convention/>
37 Art. 1(5) HNS
38 Art. I.8 CLC, Art. 1.8 BOPC
39 Art. I.6 CLC, Art. 1.9 BOPC
40 Art. I.7 CLC, Art. 1.7 BOPC
41 Art. I. 8 HNS, Art. 1.7 HNS
42 Art. I.5 HNS
43 Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p.373

The so called "pure economic loss", referring to property that has not been polluted, nevertheless deals with the negative consequence of economic loss due to the oil pollution, has been restricted in most jurisdictions for fear of the far-reaching consequences.[44] However, the Executive Committee has agreed to compensate some forms of economic loss suffered by those who depend directly on earnings from coastal and sea-related activities, such as loss of earnings by fisherman, hoteliers and restaurants at seaside.

For instance, in Shetland Seafarms Ltd v Braer Corp[45], the Court allowed a claim for both wasted expenses and loss of profits for losses suffered by a Scottish fish-farm that could not take delivery of smolt following the release of oil from a tanker. Likewise, in Landcatch Ltd v International Oil Pollution Compensation Fund, there was recoverability of "pure" economic losses, despite the absence of physical damage to the claimant's property and the court held that compensation should be rewarded to fisherman prevented from fishing in polluted waters.[46]

On the other hand, courts have denied to claims for "pure economic losses" in cases where there was a secondary economic loss, arising merely from the disruption of commercial relations without closely focused on physical contamination and its consequences.[47] In Skerries Salmon Ltd v Braer Corp,[48] the claim brought in respect of the economic effects of contamination upon the pursuers' commercial activities was denied for being purely relational economic loss. Since the loss has to be caused directly by the contamination, the "but for" test is considered as the appropriate criterion for liability under CLC, according to which liability covers all losses that would not have occurred but for the mishap.[49] Therefore, the IOPC Fund accepts claims for loss of earnings arising merely from direct prevention of business activities.

In relation to damage to marine environment, namely compensation for ecological damage, it cannot be easily assessed in monetary terms, as the marine environment does not have any direct market value and the absence of quantifiable damage does objectively raise a major problem of proof. It is submitted that any calculation in monetary terms for damage to unex-

44 Tettenborn, supra note (43)
45 Shetland Seafarms Ltd v Braer Corp, 1999 S.L.T. 1189
46 Landcatch Ltd v International Oil Pollution Compensation Fund 1999 S.L.T. 1208 at 1221 [1999] 2 Lloyd's Rep. 316 p.334, and Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p.374
47 Ibid
48 Skerries Salmon Ltd v Braer Corp, 1999 S.L.T. 1196
49 ibid

ploited natural resources would be arbitrary and hence, the Executive Committee took the view that compensation can be granted only if a claimant has suffered quantifiable economic loss.[50] Therefore, the conventions seem to exclude compensation for the damage to the environment per se and leave it for the consideration of other international instrument.

Nevertheless, the example in Erika case[51] is remarkable, providing compensation for pure environmental damage. Claimants were awarded compensation based on national law for economic losses, losses but also moral damage resulting from the pollution, including loss of enjoyment, damage to reputation and brand image and moral damage arising from damage to the natural heritage, as damage to non-marketable environmental resources that constitute a legitimate collective interest.[52]

2.4 Exclusions of Strict liability

The CLC abandoned the traditional concept of fault-based liability and instead imposed on shipowners a strict liability -without any requirement of fault or negligence- for pollution damage. This replacement represented a major revolution back in 1969 and contributed to a serious reinforcement of the position of victims of oil pollution.[53] The imposed liability is on the owner, who is defined as "the person or persons registered as the owner of the ship or, in the absence of registration, the person or persons owning the ship".[54] The concept of strict liability was adopted under BOPC[55] and HNS[56]. Further, when there is a collision between two or more oil tankers under CLC[57] and between ships under BOPC[58] and HNS[59] and pollution damage results therefrom, there is an established joint and several liability and the right of owners to seek recourse against third parties.

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50 De La Rue, Liability for damage to the marine environment, p.53
51 C-188/07
52 Sands, Peel, Principles of International Environmental Law, p.787-8, and International Oil Pollution Compensation Funds, <www.iopcfunds.org/uploads/tx_iopcpublications/incidents2013_e.pdf > [19.10.2021]
53 De La Rue, Supra note(52), p.41
54 Art. I.3 CLC, Art. III.1 CLC
55 Art. 3.1 BOPC
56 Art. 7.1 HNS
57 Art. 3.5 CLC
58 Art. 5 BOPC
59 Art. 8.1 HNS

As under CLC, the liability of the owner under HNS[60] and BOPC is strict,[61] however, the definition of shipowner under BOPC includes the registered owner, the bareboat charterer, the manager and the operator of a ship, thus it is much wider than the equivalent definition under CLC, which imposes liability only on the registered owner. Hence, the BOPC makes more than one person liable, but only one, the registered shipowner, has to carry compulsory insurance, as will be discussed further.

No liability for pollution damage arises under CLC, "if the owner proves that the damage resulted from an act of war, hostilities, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character, or was wholly caused by an act or omission done with intent to cause damage by third party, or was wholly caused by the negligence or other wrongful act of any government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function."[62]

In ND 1983.1 SSC Tsesis,[63] a Soviet tanker hit an unmarked, submerged rock in Swedish waters and oil escaped due to the grounding of the vessel. The question was whether a marine chart qualified as a «navigational aid» within the meaning of the Convention and the majority of the Swedish Supreme Court held that there was no liability, because the chart was lacking a mark on a dangerous area and the lighthouse was not modified. Therefore, the chart was considered as a "navigational aid" in accordance with the purpose of the provision as such.

Further, if the owner proves that the pollution damage resulted wholly or partially either from an act or omission done with intent to cause damage by the person who suffered the damage or from the negligence of that person, he will be exonerated wholly or partially from liability.[64] It is noteworthy that the BOPC and HNS provide the same exclusions from liability as the CLC,[65] but HNS has also its own exclusion about the failure of the shipper to provide information concerning the hazardous and noxious nature of the substances shipped, resulted in damage or lack of insurance for carrying such substances.[66]

60 Art. 7.1 HNS
61 Art. 3.1 BOPC
62 Art. III.2 CLC
63 Bull, Scandinavian Maritime Law, p.239
64 Art. III.3 CLC
65 Art. 3.3 BOPC, Art. 7.2 HNS
66 Art. 7.2 (d) HNS

2.5 Channeling of liability

One of the main characteristics of pollution regime is the so-called "channelling of liability" principle which insinuates that claims for compensation for oil pollution damage shall be made only against the registered owner of the ship.[67] The channeling of liability does not only warn potentially liable parties in order to prompt them to take precautions and appropriate insurance, but it also avoids an economically wasteful duplication of exposure to claims.[68] In the context of CLC[69] and HNS[70], the owner's liability for pollution claims cannot be bypassed by pursuing any of the defendants mentioned under the provisions, namely crewmembers, servants, agents, pilot, charterers, managers, operator of the ships, salvors and others involved in preventive measures, etc. Only against persons that are not covered by CLC and HNS, like shipbuilders and Classification Societies, can be sued directly exposing them to un-limited and fault-based liability.[71] It is important to highlight that neither the claimant, nor the owner can seek to improve their position by resorting to national law.[72] The channeling of liability does not harm the owner's right of recourse against third parties, unless "the damage resulted from their personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result."[73]

As it was stressed above, the shipowner is defined more broadly under the BOPC, including the registered owner, bareboat charterer, manager and operator of the ship,[74] thus the channeling of liability includes all these persons who can be held jointly and severally liable.[75] In other words, if more than one person under the definition of shipowner is liable, the liability is joint and several and the victim can recover from the financially stronger or more accessible person. Comparing the Art. 3.5 of BOPC with Article III.4 of CLC, the prohibition of suit against servants, agents and those connected with the vessel has not been adopted under BOPC. This is a more protective restriction under the CLC which protects numerous other parties against claims for pollution damage from tankers and not only the shipowner, while

67 Art. III.4 CLC, Art. 7.1 HNS
68 De La Rue, Liability for damage to the marine environment, p.95
69 Art III.4 CLC
70 Art. 7.5 HNS
71 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p.309
72 Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p.370
73 Art. III.4,5 CLC, Art. 7.5 HNS
74 Art. 1.3 BOPC
75 Art. 3.2 BOPC

the absence of channeling provisions in the BOPC creates a possibility of claims being pursued independently against parties other than shipowner.[76]

2.6 Limitation of liability and Breaking of Limitation

The right of shipowners to limit their liability for pollution damage under the liability Conventions is important both as a corollary for the imposed strict liability and the apportionment of burden among shipping, oil and cargo industries.[77] It needs to be stressed that there are different arrangements of limitation in the three liability Conventions. Both CLC and HNS contain relevant rules, although they differ in content, whereas BOPC refer to other conventions or national rules. Nevertheless, the compensation under the liability conventions is based on limitation tonnage on the vessel's gross tonnage.

In particular, the CLC 1992 doubled the limits of liability of shipowners, as a counterweight to the imposition of strict liability.[78]According to Article V.1 CLC, the owner is entitled to limit his liability to 4,5 million units of account (SDR) for ships up to the size of 5.000 tons. If the tonnage of a ship exceeds 5.000 units, then the liability of the owner increases to 631 SDR for each additional ton. However, the CLC provides a maximum of 89,770 million SDR for the aggregate amount.

It is also important to bear in mind that under Article 3(b) of the LLMC 1976, claims for oil pollution damage within the meaning of the CLC are specifically excluded. The CLC supersedes any international Convention in force,[79] "only to the extent that such Conventions would be in conflict with them". Thus, CLC prevails in all matters of oil pollution damage. The wording of the exclusion is absolute, since it is suggested that if oil pollution damage occurs in the high seas or in the jurisdiction of a non-Contracting State, then the liability will be unlimited, cause neither CLC nor LLLM will apply, unless there is national law to plug that gap.[80]

The claims for pollution damage that do not fall within the ambit of CLC can be brought under LLMC 1996, such as loss of life and personal injuries or losses on board. Since the CLC

76 De La Rue, Shipping and the Environment, p.262
77 De la Rue, Supra note (77), p.113, 263, 283
78 Reynolds, Tsimplis, Supra note (72), p.311
79 Article XII CLC
80 De la Rue, Supra note (77), p.66

limits are additional to limits in respect of other claims, the owner has to limit liability separately both for the claims under CLC and for other claims. In this way claimants who seek compensation for oil pollution damage are not required to compete with claimants in respect of property damage, cargo claims or personal injuries and loss of life.[81]

In respect of the right of limitation, CLC[82] provides that the owner shall not be entitled to limit his liability "if it is proved that the pollution damage resulted from his personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result." This type of the so-called "breaking of limitation", same under the LLMC 1996 has been difficult to prove.[83] It is similar to other international transport conventions[84] and imposes a very heavy burden of proof to the applicant, resulting in an almost "indisputable right to limit".[85]

Under both LLMC 96[86] and the CLC,[87] a similar test applies, in the sense that if the owner lost his right to limit his liability under CLC, it is likely that this right would be lost under the LLMC Convention. According to that test, the owner loses his right to limit liability due to an act or omission by requiring proof of intention to cause damage or by showing either that the shipowner himself was negligent or that he had knowledge of the negligence of his employees, agents, etc.

To break the right to limitation it is necessary to prove a causative act or omission on the part of the shipowner that caused the loss, in conjunction with an "actual knowledge" that damage will be likely to happen.[88] If the shipowner was reckless, but did not have the actual knowledge of the particular kind of loss would probably result, he retains the right to limit liability.[89] In most of the cases, the invocation of the breaking of limitation has not been suc-

81 Tettenborn, Supra note (73), p.376
82 Article V.2 CLC
83 Tettenborn, supra note (73), p.377
84 Hague Visby Rules V.5(e), Athens Convention Relating to Carriage of Passengers and their luggage by sea art. 13 (1), but each convention is interpreted according to its scope, Reynolds, supra note,(71) p.84
85 Tettenborn, supra note (73), p.525
86 Article 4 LLMC
87 Article V.2 CLC
88 Reynolds, Tsimplis, supra note (72), p.526
89 Ibid, p.87

cessful.[90] Consequently, the shipowner will almost always be entitled to use the defense and limit his liability, expect some extraordinary cases.

According to the Article 6 of BOPC, there is not such special regime for limitation of liability, but refers to the applicable national or international legislation, such as the LLMC 1996. The list of limitable claims of LLMC does not refer to pollution damage, but it depends on the interpretation of the wording of the LLMC, if the right of limitation can be availed for a pollution damage.[91] Some types of bunker pollution damage are subject to liability, but some may not. Owning to the fact that Article 2.1 (a) of LLMC covers "property damage" and "consequential loss linked to the property damage", the damage must occur on board or otherwise "in direct connection" with the operation of the ship or with salvage operations.[92] It has been suggested that a "necessary linkage" between the loss suffered and the ship in respect is needed.[93] This includes claims for damage in direct connection with the operation of the ship, but also consequential damage, such as claims for lost profits due to damage to property, pollution damage, clean-up costs and recourse claims for pollution.[94]

In the Aegean Sea, the court did not distinguish between losses linked with "property damage" and "consequential to property damage claims", but it held that clean-up costs and loss of profits by fisherman, yachtsmen, shop owners were subject to limitation under Article 2.1 (a) LLMC. However, the English Courts take a more restrictive approach for pure economic loss and do not accept such claims, while the Australian courts have been held to compensate pure economic loss arising from physical damage to a pipeline.[95] In doing so the Court considered that the consequential losses under Article 2.1 (a) of the LLMC shall not be restricted to include damage subsequent to the claimant's own physical damage or loss of life or personal injury, but should be involved with the incident of the ship in more generic terms.[96]

90 ibid
91 Ibid, p.342
92 Art. 2.I (a) LLMC
93 Tettenborn, supra note (73), p.517
94 Aegean Sea Traders Corp v Repsol Petroleo SA (The Aegean Sea) [1998] 2 Lloyd's Rep. 39 p.43
95 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p. 59 and Qenos Pty Ltd v Ship APL Sydney [2009] FCA 1090; 260 A.L.R. 692, p.37]
96 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p.56

The BOPC does not include a test for breaking limitation, because it does not include independent rights of limitation of liability, but relies on nationally and international applicable regimes, such LLLM, as explained above.[97]

The limitation rules of HNS differ according to whether the damage is caused by HNS in bulk or by packaged HNS.[98] The owner's liability in terms of HNS in bulk is limited to 1,500 units of account for ships under 50,000 units of tonnage and to 360 units of account for ships in excess of 50,000 units of tonnage, while the limitation amounts for packaged HNS are slightly higher; 1,725 units of account for ships under 50,000 tons and 414 units of account for bigger ships. Unlike CLC claims, HNS claims are not excluded from the 1976 Limitation Convention, while the owner's right to limit liability is similar to that employed by the other liability conventions.[99]

2.7 Compulsory insurance

A new element of great modification of the traditional maritime law was the introduction of compulsory insurance, designed for the benefit of the third parties suffering loss or costs"of pollution damage. Under CLC Article VII, the owner of a tanker carrying more than 2,000 tons of persistent oil as cargo is obliged to maintain insurance to cover his liability,[100] while the victims are entitled of direct action against the insurer.[101] The enforcement of the insurance obligation is reinforced by the prerequisite that vessels are not allowed to trade, or even enter and leave ports and offshore terminals, unless any necessary certificate has been issued,[102] provided by the P&I Clubs, as will be discussed in the next chapter.[103] Therefore, even if a vessel is registered in a non-Convention State, still is required to carry a certificate issued by the state of registry, in order to trade with a Contracting State.

97 Tsimplis, Maritime Law, p.408
98 Art. 9 HNS
99 Art. 9.2 HNS
100 Art. VII.1 CLC
101 Art. VII.8 CLC
102 Art VII §11 CLC
103 Ch. 3.1

As safeguards for the insurers, they are able to defend themselves only on the same grounds allowed to the owner under the CLC and limit their liability up to the same amounts as the owners, even if the owners have been deprived of that right of limitation.[104] In case of willful misconduct on the part of the owner, the insurer has a complete defense that he can invoke against any direct action under CLC.[105]

The compulsory insurance regime under CLC has also provided the example for the BOPC and HNS. Likewise, the BOPC provides mandatory insurance against bunker pollution liability for all registered owners up to an amount equal to the limits of liability under the applicable national or international limitation regime.[106] While the BOPC applies to all ships, the compulsory insurance applies only to the registered owner of a ship having a gross tonnage greater than 1000.[107] State Parties of BOPC and HNS must require ships flying their flag with the necessary insurance and carry the required certificate[108] and should be able to provide evidence of this cover upon the ship's entry or leaving a port of any State Parties.[109] They also enable the victims to sue insurers directly, while the insurers can raise the defenses and limits that the shipowner would have invoked, even if there is willful misconduct on the part of the shipowner.[110] The wording used under P&I Rules and the Pooling Agreement is similar to that contained in international conventions governing limitation of liability -LLMC, CLC, BOPC- and therefore when the member is deprived to limit his liability may also be deprived of his P&I cover due to willful misconduct.[111]

2.8 Compensation from International Pollution Compensation Funds

The analysis of the International Pollution Compensation Funds is held due to the close cooperation of P&I Clubs with the Funds in handling the pollution claims with the aim to avoid and minimize pollution damage.[112] The CLC is supplemented by the Fund Convention 1992

104 Art VII §8 CLC
105 ibid
106 Art. 7.1 BOPC
107 Art. 7.1, 2-5, 7.13 BOPC
108 Art. 7 BOPC, Art. 12 HNS
109 Art. 12,4, 12.7 and 12.11 HNS
110 Art 7.10 BOPC, Art. 12.8 HNS
111 ibid
112 De la Rue, Anderson, Shipping and the Enivronment, p.158

and the Supplementary Protocol 2003, while STOPIA and TOPIA constitute a voluntary scheme to indemnify the Funds. HNS has a second-tier compensation established by the HNS Fund, while it needs to be stressed that BOPC is a single-tire regime, which is completely different from the other liability Conventions and there is no international Fund which co-operates with the BOPC.

In the Resolution adopted at the 1969 Diplomatic Conference, it was already recognized that the regime of compensation established by CLC was inadequate, leading to a new international compensation scheme, the International Oil Pollution Compensation Fund.[113] This was part of a political compromise *as a quid pro quo* for shipowning nations accepting strict liability, higher liability limits, and compulsory insurance. The P&I Clubs agreed to report to the Fund any incident that would likely involve the IOPC Fund and consult with the Fund about the pollution claims.[114] The main purpose of the IOPC Fund is to provide as a second-tier supplementary compensation to those who cannot obtain full compensation for oil pollution damage under the CLC and to indemnify the shipowner for the additional financial burden imposed upon them. The 1992 CLC and IOPC Fund 1992 system together have been very successful, and this is demonstrated by their widespread acceptance, having been ratified by over 100 States.[115]

The Supplementary Protocol 2003 to the CLC was a response to preoccupations that the available funds were not sufficient to cover claims following a major pollution incident.[116] It provides a voluntary third tier of compensation over and above the IOPC Fund limit in those States who are signatories Parties.[117] It provides compensation to any person suffering pollution damage in any Contracting State "if such person has been unable to obtain full and adequate compensation under the terms of the IOPC Fund, because the total damage exceeds, or there is a risk that it will exceed, the applicable limit of compensation laid down under IOPC Fund in respect of any one incident."[118] Since the Supplementary IOPC Fund applies to States voluntarily topping up the IOPC Fund, States which consider the IOPC Fund limits to be sufficient to cover the compensation with regard to an accident can avoid imposing burden

113 De La Rue, Liability for Damage to the Marine Environment, p.44
114 De La Rue, Supra note (116)
115 144 States have ratified the 1992 CLC and 120 States have ratified the IOPC Fund 1992, IMO, supra note (10), [15.07.2021]
116 Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p. 383 and Preamble to the IOPC Supplementary Fund Protocol 2003
117 32 States Parties to the Supplementary Fund Protocol 2003, IMO, Supra note (10)
118 Art. 4.1 Supplementary Fund Protocol 2003

to their oil importers with the additional costs under the IOPC Fund Supplementary as an additional tier of compensation.[119]

Particularly, the IOPC Fund is a totally independent organization, regulated by the Fund Convention and financed by the oil industry who receives crude oil and heavy fuel oil by sea transport in excess of 150,000 tones.[120] According to the Article 4.3 of the Fund 92, the aggregate amount of compensation recoverable from it in respect of any incident is limited to 203 million SDRs Art 4.3 Fund 92. The role of the Fund is essential for the harmonization of legal practice in the field of compensation for oil pollution damage. In setting claims for pollution damage the IOPC Fund co-operates closely with the shipowner's pollution liability, which is practically in all cases a P&I Club, using the handling database Web-based Claims Management System that facilitates the claims management.[121] The investigation of the incident and the clean-up operations are carried out jointly by the IOPC and P&I Club. The settlement of claims

of compensation is achieved in a relatively short period of time, if the aggregate amount against the IOPC arising out of an incident does not exceed an amount of about 2.5 million SDR. For higher claims, the approval of the Executive Committee is needed. It must be stressed that the time needed for the settlement of claims depends on the quality submitted in support of the claims, but generally the IOPC Fund has succeeded in creating procedures for rapid payment of compensation for oil pollution damage.[122] In practice, the claims procedure under the Fund is quite similar to CLC, but the latter usually requires court resolution. The claims-handling policies of the P&I Clubs and of the IOPC Fund have in practice resulted in most claims being amicably settled; while difficulties may be involved in applying in other countries, particularly where there is a difference of jurisprudential tradition.[123]

As it was evident, the financing of the extra tiers of compensation fall basically on the oil industry. To redress this imbalance, the International Group of P&I Clubs, introduced two voluntary agreements[124]: the STOPIA 2006 and the TOPIA 2006 to redistribute the liability between P&I and oil importers. Oil spills covered by these agreements will still be dealt with by

119 Reynolds, Tsimplis, Shipowners' Limitation of Liability, p.331
120 Art. 10 Fund 92
121 De La Rue, Liability for Damage to the Marine Environment, p.158
122 ibid
123 Ibid, p.250
124 Tettenborn, Kimbell, Marsden and Gault on Collisions at Sea, p.485

the IOPC Fund and the Supplementary Fund, but the Funds will then be indemnified by the shipowner under the agreements. In particular, STOPIA specifies that shipowners agree to pay up to 20 million SDRs for tankers up to 29,548 gross tonnages for damage covered under the 1992 Fund.[125] Under TOPIA, the Supplementary Fund is indemnified for half the amount paid in compensation in respect of incidents involving ships covered.[126] A pariticipation in the schemes is typically a condition of P&I Club cover for pollution risks and ships are automatically entered in them when such cover is placed.[127]

In terms of the HNS Fund, the regime established is largely influenced by the model of CLC and its Fund Convention, but it will not be analyzed in detail. A two-tier system is established for compensation to be paid, according to which the first tier is covered by the compulsory insurance taken by the ship-owners,[128] as a result of the strict liability, while the second tier will be paid by the compensation fund, as additional compensation on those cases where the insurance does not cover the incident or is not sufficient to satisfy the claim.[129] The HNS Fund will be divided to 350 million tons for the oil account, 20 million tons for the LNG account and 15 million tons for the LPG account.[130] Similarly to the Fund 92, the HNS Fund will be funded also by annual contributions[131] by any person who was the receiver in respect of the actual quantity, notwithstanding that quantity did not exceed the respective limit.

2.9 Norwegian perspective on pollution liability Conventions

As all the Scandinavian countries are members of the liability Conventions, the NMC has been developed in cooperation among them as part of the Nordic legal cooperation.[132] The CLC and BOPC were incorporated into the NMC with an amendment on 1974 in Chapter 10 and there have been significant changes since then, while the HNS was adopted as an Act of

125 Clause IV (c), STOPIA
126 Clause, IV (c), TOPIA
127 De la Rue, supra note (116), p.735
128 Art. 9 HNS
129 Art. 13, 14 HNS
130 Art. 19.3 HNS
131 Art. 15(v), 16 §3,4,5 HNS
132 Bull, Scandinavian Maritime law, p.28

12 May 2015 no.30 and incorporated as a new Chapter 11 in NMC.[133] The Fund Conventions have also direct legal effect in NMC.[134]

The international Convention allows the signatory countries to decide differently on specific provisions. What is noteworthy is the incorporation of the Article 2.1 (d) and (e) LLMC into the domestic rules under section 172 (a), 175 (a) NMC that regulate a substantially higher amount in comparison with the one under section 175 no.3 NMC.[135] These higher limits are claims described as "expenses in connection with the emergency discharge of the ship's bunkers, wreck removal or clean up of bunker oil from the sea or shore".[136] There has been an increased dispute in terms of limitation issues arising under these sections and namely what claims can be brought and what is the relationship between the owner's duty to take measures in the event of pollution and the limitation rules in MC.[137]

In NSC 2007.110 Rockness,[138] the vessel went aground and the German shipowner was held liable for expenses of salvage and clean-up of the oil spill. The limits were significantly higher under the Protocol 1996 than under the 1976 Convention, but the Supreme Court held that Norway was obliged to apply the rules of the 1976 Convention, since the Protocol was not in force by Germany at the time of the casualty.

In addition, the shipwreck of the bulk carrier Server[139] in 2007 that grounded off in Hordaland, Norway and, likewise, in Full City in 2009,[140] the owners asserted that they were not obliged to remove the wreck to the extent that the costs were not completely covered by the ship's limitation amount. The governments clean-up costs have been estimated to be NOK 196 million pursuant to the Pollution Act § 76 and §74 and the State made a demand for repayment from the owners who claimed that the limitation fund should be set up according to the section 172a and 175a NMC.[141]

Further, as the BOPC allows each signatory country to decide whether they would extend or not the channelling of bunker oil liability, the protection of liability under NMC is extended to

133 Ibid, p.235,255
134 Section 201, 202 and Ch. 11, Bull, Scandinavian Maritime Law, p.244, 255
135 Ibid, p.224
136 Ibid, p.249, Ot.prp.no.77 (2007-2008), p.9
137 Ibid
138 Bull, Scandinavian Maritime Law, p.244
139 LB-2015-54634
140 LB-2015-174299
141 ibid, p.250, 264

other parties as well; the rules in section 193 §2 and §3 on channelling of liability apply correspondingly to liability arising from bunkers.[142] However, the rules do not apply to persons encompassed in the definition of "the ship's owner" in section 183 fifth paragraph.[143] In comparison, the UK enactment reflected in section 156 (2a) of the MSA 1995, goes further than BOPC and excludes from liability any person involved in pollution prevention or mitigation activities and their servants or agents.[144]

Finally, in terms of recourse rights against protected parties under the liability Conventions, there is one exception; persons mentioned in letter (c) under section 193§3 NMC are not protected against recourse action.[145] The same applies for the BOPC and HNS according to section 185 and 214§2 of NMC.[146]

2.10 US law on pollution damage

The US is one of the world's largest importers of oil and the number of shipping movements potentially affected by its pollution laws is very large. Even though the interest of international shipping is to have a regulatory system as uniform as possible to avoid any implications in terms of the protection of marine environment, the US is not a signatory to the CLC, BOPC, HNS, but has enacted statutes such as the Federal Water Pollution Control Act (FWPCA), the Comprehensive Environmental Response, Compensation and Liability Act 1980 (CERCLA) and the Oil Pollution Act 1990 (OPA 90). The US is also not party to the BWMC, that will be assessed further, and is free to impose more stringent standards than that being adopted by the IMO under the US Coast Guard (USCG) regulations and ships calling at ports in US will have to comply with the more rigorous requirements. Hence, it is imperative for vessels trading to US to be familiar with the US policy, which has been characterized as 'nationalist', implying that the US sought to impose a new order upon the international oil system.[147]

142 Section 185 NMC
143 Falkanger, Bull, Scandinavian Maritime Law, p.249
144 Tsimplis, supra note (72), p.340
145 Bull, supra note (148), p. 241
146 Ibid, p. 248, 259
147 Bull, US International Oil Policy 1973-83: Pursuing a Cooperative Regime or an Imposed Order, p.191

It is obvious that P&I Clubs prefer the IMO regulatory system, which channels the liability to the shipowner, while under US there is a number of responsible parties, resulting in length litigations.[148] There are also differences between US system and international regime in terms of pollution damage, limitation amount and the lost of right to limit liability. Specifically, regarding the latter, the limitation provisions in US are ineffective, because in most casualties it will be relatively easy to prove that there was 'violation of an applicable federal safety, construction or operating regulation, gross negligence or willful misconduct of the responsible party, its agent or employee". On the other hand, the US regime has recognized broader compensation for natural resource damages.[149]

Like the international regime, OPA 90 basically prescribes the fund scheme as a supplementary one to the liability scheme for the responsible party or the guarantor, but it provides a higher maximum amount of compensation than the international counterpart. It also enables the claimant to avoid time consuming process to settle disputes with the responsible party by providing direct payment from the fund when the responsible party denies liability or the claim is not settled within 90 days.[150] Therefore, it is more efficient to get compensation as compared to the counterpart of the international regime. However, the claim settlement problems which arise from the division of the two liability regimes and the different methods for calculating costs and expenses under the two systems cause further difficulties.

The importance of the US market enables the US unilateral regime to endure in both the liability scheme and the fund scheme without links with the international market. In long term, however, it would be desirable to establish a unified international regime towards preventing, cleaning up oil spills and compensating damages from oil spills rather than struggling with the current dual system.

2.11 Other pollution conventions: MARPOL, BWMC

MARPOL is the primary legal instrument for the prevention of ship-source marine pollution by regulating ship operating procedures. Its purpose was to establish a comprehensive regime to eliminate the intentional pollution of marine environment by oil and other harmful sub-

148 Gold, Gard Handbook on P&I insurance, p.438
149 Inho Kim, A comparison between the international and US regimes regulating oil pollution liability and compensation, p.266
150 Ibid, p.271

stances and to minimize the accidental discharge of such substances.[151] Focus is placed on MARPOL due to violations its regulations that can result in considerable high pollution fines that may be covered by the P&I Clubs, as it will be discussed in Chapter 3.

MARPOL, like other international treaties, only governs the relations between the States that have consented to become parties to this convention. Nevertheless, MARPOL can still be applicable to States that are not signatory parties, such as the application of port State control regimes to any ship entering its ports.[152] In that case, a port State is entitled to enforce its own legislation to ships regardless of flag and therefore control whether the requirements of international regulations, such MARPOL, are followed.

Every discharge into the sea, as defined under MARPOL, is prohibited unless it satisfies the conditions for a permissible operational discharge or is excluded under the Convention.[153] Violations of MARPOL can lead to huge fines on shipowners and third-party vessel managers, while crewmembers can face criminal charges. The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection estimates that approximately 450,000 tons of oil are intentionally jettisoned from ships into the world's oceans.[154] However, the P&I cover for pollution fines and associated expenses is only available on accidental discharges of oil and other harmful substances,[155] while in the event of any personal act or default on the part of a member or where there has been willful misconduct there is discretion on the part of the Club.[156]

Port State authorities in various countries deal strictly with breaches of MARPOL Regulations and notably in US. According to Article 4 of MARPOL, "Any violation of the requirements of the present Convention shall be prohibited and sanctions shall be established therefor under the law of the Administration of the ship concerned wherever the violation occurs". However, unlawful actions taken by foreign flagged[157] vessels on the high seas are outside the jurisdiction of Member States. When a "flag of convenience," a term used for the flag of a ship registered in an open registry, violates the provisions of MARPOL, it is highly unlikely that any

151 De la Rue, Anderson, Shipping and the Environment, p.823
152 ibid, p.94
153 Ibid, p.1085
154 Daisy de Wolf, Hiding behind the flag: jurisdictional impediments imposed by the law of the flag on the enforcement of violations of Annex 1 of MARPOL 73/78, p.1476
155 I.e., Skuld Rules 2021;19.1.3, Gard Rules 2021; 47.1.c, Swedish P&I Rules 2020-21; section 6.1.c
156 Standard P&I Club, MARPOL fines for oil pollution and operational best practice, 11.10.2020
157 Meaning any vessel of foreign registry including vessels owned by US citizens but registered in a nation other than the US.

criminal charges will ever be filed against its owner for unlawful oil discharges into international waters.[158]

Particularly, the U.S. Department of Justice has issued many fines of million USD against shipowners and operators of foreign to US flagged vessels for violations of the Act to Prevent Pollution from Ships ("APPS"), which is the U.S. implementation of the MARPOL Convention, for concealing illegal discharges of oily water.[159] It is common for ships to lack the parts necessary to effectuate required repairs of their oil-pollution-control devices, since proper shore-side disposal of oil at port reception facilities is expensive and time-consuming.[160] To minimize operating costs and to save valuable time, ships' owners and crewmembers often are not equipped with oil-water separators and illegally dispose of oil. Thus, vessels under "flag of convenience" illegally releasing discharges of oil into international waters, which themselves could not be prosecuted due to the law of the flag.[161]

To elucidate, recently in March 2020, a Singaporean Shipping Company was sentenced to pay a fine of USD 1.65 million for concealing illegal discharges of oily water, as the crew members discharged oily bilge water overboard without the use of required pollution-prevention equipment and deliberately failed to record in the vessel's oil record book the overboard discharge of oily bilge water.[162] Following, in July 2020, a Japanese Shipping Company was fined $1.5 Million for concealing illegal discharges of oily water and ordered to implement a comprehensive Environmental Compliance Plan after pleading guilty to violating APPS by falsifying the oil record book, while the chief engineer of the vessel convicted after declaring guilty for failing to accurately maintain an oil record book.[163]

Despite the US Department of Justice's "aggressive enforcement of federal environmental laws", unlawful discharges of oil by foreign-flagged vessels continue on the high seas, involving the cover-up of unlawful jettison of oil in violation of APPS by foreign-flagged passenger

158 Daisy de Wolf, supra note (145), p.1479
159 Ibid, p.1477
160 ibid p.1490 and Homer, Red Sky at Morning: The Horizon for Corporations, Crew Members, and Corporate Officers as the United States Continues Aggressive Criminal Prosecution of Intentional Pollution from Ships, p.156
161 Ibid, p.1479
162 <https://www.justice.gov/opa/pr/singaporean-shipping-company-fined-165m-concealing-illegal-discharges-oily-water>, [7.10.2021]
163 <https://www.justice.gov/opa/pr/japanese-shipping-company-fined-15-million-concealing-illegal-discharges-oily-water>,[7.10.2021]

cruise lines, chemical tankers, and cargo vessels that call on US ports.[164] Such blatant violations of Annex I of MARPOL are unacceptable and both the IMO and the US must enhance compliance with MARPOL and APPS, enforce prosecution and severe sentences for the deliberate discharge of oil and any attempts to cover it up in order to minimize the marine pollution. The coverage of such fines for these discharges by the P&I will be assessed further under Chapter 3.5.

Alongside the most important pollution Conventions, other instruments have been drafted to regulate additional aspects of pollution from ships. The 8th of September 2017 marks an important day for both the shipping industry and the environment, as the BWMC was enforced. IMO adopted the BWMC to prevent, minimise and eliminate risks to the environment due to the transfer of harmful aquatic organisms via ship ballast water.

In particular, the BWMC aims to control the severe negative effects of alien species from ship ballast water by requiring management practices in accordance with certain standards, such the requirement to establish a ship-specific Ballast Water Management Plan. The ballast water is required to guarantee minimum stability criteria, especially for containerships that have to balance between speed, capacity and stability.[165] The amount of ballast water is increased based on the size of the ship; on average oil tankers approximately 30 to 40% of its deadweight is ballast, denoting that for a 250,000-ton ship it results in 75,000-100.000 tons of ballast water on each single trip.[166]

The importance of the BWMC lies on the fact that as a global legislative regime, all ships engaged in international traffic are required to manage their ballast water to avoid the accidental introduction of alien species into coastal waters by exchanging their ballast water or treating it using an approved water management system. Consequently, when ships release their ballast water will be less likely to introduce potentially harmful living species taken out of their natural habitat, which has been identified as a major environmental threat.[167] Approximately 4000 species have been estimated to be transferred by ships each day.[168] Taking out the living creatures and shipping them all over the seas, will increase the risk of local eco-

164 Daisy de Wolf, supra note (145), p.1510
165 Wijnolst, Wergeland, Shipping Innovation, p.690
166 Ibid
167<https://www.imo.org/en/OurWork/Environment/Pages/BallastWaterManagement.aspx>, [7.10.2021]
168 Wijnolst, supra note (156), p.696

system disturbance, affect the bio-diversity and even endanger public health.[169] The uncontrolled growth of marine organisms also causes damage to infrastructure and installations, while it has negative impacts on commercial activities and business, such tourist industry and fishery.[170]

The Flag States are entitled to impose fines and in extreme circumstances, the shipowner may even be subject to criminal proceedings in line with the national legislation of the Flag States. Specifically, a shipowner may be held liable for damage arising from a ballast water discharge and be subject to penalties in the following circumstances,[171] for instance, due to failure to have any ballast water treatment facilities required by Flag State, or having ballast water treatment facilities that are approved under IMO regulations but not under domestic law (in a non-member state to the BWMC) or having ballast water treatment facilities but reliable analysis show ballast water does not meet the requirements of the BWMC. Therefore, it is crucial to assess further in Chapter 3 the P&I Club cover for claims arising out of breaches of the BWMC.

3 COMPULSORY LIABILITY INSURANCE COVERED BY P&I CLUBS

3.1 P&I Insurance- Key characteristics

The Club's contribution during the Draft of the CLC and its Fund was pivotal[172] due to their published data and figures covering thousands of oil spills involving high costs of claims and intricate questions related with the incidents. The Club's expertise, sharing of knowledge and sharing of burden of oil pollution costs improved the handling of such claims.

169 ibid
170 ibid
171 Standard Club, Pollution; The Ballast Water Management Convention 2004, p.2
172 IMO, Official Records of the International Conference of the Revision of the 1969 Civil Liability Convention and the 1971 Fund Convention, p.16

Representing about 90 % of the world's merchant fleet, the International Group of P&I Clubs consists of 13 Clubs and possesses a dominant power exercised on behalf of the shipowners. The Clubs in the International Group operate from different jurisdictions, but as mutual insurance associations they agree to collectively pool and reinsure claims at high level between themselves through the Pooling Agreement. The Pooling Agreement is the legal framework for claims sharing among the Clubs and contains provisions about the purchase of common reinsurance and apportionment between the associations for claims exceeding the amount covered.[173] The function of the IGA, providing marine liability cover for approximately 90% of the world's ocean-going tonnage,[174] is to ensure the operation of the Pooling Agreement and the collective reinsurance of the Arrangement. The essence of the agreement between a mutual insurance association and its members is the sharing of losses and liabilities sustained in contrast with the commercial purchase of indemnity through payment of a premium which predicates no necessary connection between the money paid by the assured and the volume of losses incurred during the currency of the policy.[175] Accordingly, the premium in the context of mutual insurance must be treated as "the foundation of the contract is not the payment of the premium, but an agreement that each member should bear his aliquot share of the losses of the year covered by the policy".[176]

The concept of mutuality, meaning that a member is simultaneously both the insurer and the insured who share risks, requires a true feeling of mutual trust and responsible behavior in the operation of ships and dedication to loss prevention.[177] Further, it insinuates that Clubs are non-profit organizations, since their income and assets cover no more than their liabilities, losses and reinsurance costs.[178]

Unlike other parts of P&I insurance, oil pollution is subject to its own limit of indemnity, currently US$1 billion per incident in respect of each ship entered by an owner, but members can purchase further cover on an individual basis.[179] The pollution cover is mandatory and the rationale is to ensure that owners are capable of paying compensation to potential victims of

173 Falkanger, Bull, Brautaset, Scandinavian Maritime Law, p.680
174 <https://www.igpandi.org/about> [7.10.2021]
175 Bennett, The Law of Marine Insurance, p.233
176 ibid
177 Swedish Club, P&I Rules and Exceptions, p.19
178 ibid
179 Ibid. p.487

oil pollution,[180] due to concerns regarding the accessibility of the shipowner, since it is much easier to directly sue the insurer rather than trying to pursue the beneficial owners of a vessel that has caused damage.

One factor of particular importance under P&I Rules for pollution liability is the indemnity cover of the contract between the member and the P&I Club.[181] Whilst the Club is normally obliged to indemnify its Member only where he has firstly paid or otherwise discharged his third-party liability, this is not so in the case of pollution liability.[182] The 'paid to be paid rule' as a clause in a liability insurance policy provides a defense for the insurer, but in the case of pollution liability, claimants are entitled to bring proceedings directly against the Club. The exception is reflected in the CLC itself under Art. VII §8. From a Norwegian law perspective – where direct actions as a starting point are only allowed when the member is insolvent[183]- a third party can claim directly against the Club in terms of pollution liabilities regardless of the position of the member, i.e. third parties do not need to show insolvency on part of the member.

The P&I Clubs agreed to provide evidence of insurance to meet the requirements of the article VII of CLC and established the "Blue Card System", a certificate issued as proof of insurance requirement under both CLC 1969 and 1992, and subsequently under BOPC.[184] This document provides satisfactory evidence that the members have complied with their insurance obligations under the Conventions.[185] Failure to comply with the compulsory insurance is a criminal offence that may result in the detention of the vessel.[186]

3.2 Cover for pollution damage

The P&I cover is a direct response to shipowner's need for liability insurance. It is limited to the named liabilities and losses set out in the rules of the individual club, such as the pollution liability. Although marine pollution claims do not compromise the largest P&I claims catego-

180 Erik Røsæg, Compulsory Maritime Insurance, p.3
181 Hazelwood, P&I Clubs: Law and Practice, p.335
182 Ibid, p.340
183 See the Norwegian Insurance Contracts Act section 7-8(2).
184 Readman, "Recent Developments in P&I cover for Pollution: Terrorism, Piracy and Sanctions", p.183
185 Falkanger, Bull, Brautaset, Scandinavian Maritime Law, p.681
186 Hazelwood, supra note (162), p.181

ry, the attention of such claims focuses mostly on the prevention of pollution in hope that will prevent serious pollution incidents and will reduce pollution claims.[187]

The cover expressed in board terms embraces a wide range of claims incurred in consequence of the discharge or escape of oil or any other harmful substance from an entered vessel or threat of such escape or discharge, in order to meet the compulsory insurance imposed by the Conventions to ensure that victims will obtain the adequate compensation.[188]

P&I Clubs have almost similar rules relating to coverage for pollution liability.[189] They cover any pollution incident or discharge or escape of oil or other harmful substances, or a threat of such discharge, and most of the associated consequences that may be faced.[190] In terms of liabilities and expenses arising from the threat of a discharge or escape, it is suggested that if there is sufficient risk of such discharge or escape, certain actions need to be carried out to reduce that risk.[191] All types of cargo carried on the entered ship would qualify, including sewage, waste, ballast water, debris and soot emitted through the ship's funnel, etc., since the substance does not have to be classified as "pollutant" for the cover to apply.[192] The preconditions for the pollution liability are that the damage must have occurred in direct connection with the operation of the vessel, as a result of an event that occurred during the period of the entry of the vessel in the Club and in respect of the Member's interest in the entered vessel.[193]

Depending on the location of the accident, there may be numerous claims, such as claims for third party loss or damage caused by physical contamination of property, (i.e. contamination of a fishing farm, the fouling of a fishing vessel, the soiling of recreational boats or fishing nets, or the clogging of water intakes to a production facility[194]) or claims for loss of profits sustained by fishermen, hoteliers and persons whose income depends on the coast located in the contaminated area.[195] There might also be damage to natural resources, e.g. beaches, marshlands, coral reefs and their wildlife flora and fauna habitats, for which the Member is

187 Gold, Gard Handbook on P&I insurance, p.453
188 ibid
189 De La Rue, Anderson, Shipping and the Environment, p.732
190 Gard Rule 38, Skuld Rule 14, North P&I rule 19 (13), London P&I Rule 9.15, Swedish P&I rule 6, American P&I section 14, Standard P&I rule 3.8
191 Gold, Gard Handbook on Protection of the Marine Environment, p.605-8
192 Gold, supra note (194)
193 Williams, Gard-Guidance to the Rules, p.280
194 ibid
195 De La Rue, Supra note (168), p.734

liable under the applicable law to incur restoration costs and pay damages in respect thereof to authorities, or other parties.[196]

The fact that the Clubs provide cover as described above – covering in effect most aspects of a pollution casualty – results in the Clubs being intimately involved in handling pollution casualties. Through this work, combined with the collaboration and knowledge sharing with other Clubs through the IG, the Clubs have a crucial role to play.

3.3 Cover for clean-up expenses and costs for complying with governmental orders

Cover is also available where the Member is liable under the applicable law to reimburse local authorities or other parties for preventive measures that they have taken in order to avoid or reduce the risk of pollution and clean up expenses. In some jurisdictions, the shipowner or his representatives shall be actively engaged in preventive or clean up measures under international conventions.[197] Foremost among those with expertise in this field is the International Tanker Owners Pollution Federation (ITOPF),[198] which provides on-site assistance and technical advice to P&I Clubs and to IOPC Fund in the response to oil spills.

The costs for preventive measures and clean-up operations, that could arise under the liability Conventions, would qualify for reimbursement from the Club under the rules of "sue and labor" costs.[199] This duty requires that a marine assured takes steps to avoid or minimise a loss for which he is insured. However, in pollution liability, the "sue and labor" costs are of less importance, since the Clubs may include an express rule providing cover for such expenses of measures reasonably taken for the purpose of avoiding or minimizing pollution.[200] Cover is also available for liability for loss or damage to property caused by such measures, e.g., roads or embankments by oil recovery vehicles.[201]

There is a "grey" area for cleaning expenses that might fall under the coverage of vessel's hull insurance instead of a P&I cover. According to the Nordic Marine Insurance Plan,[202] contamination of the hull by oil is considered as 'damage' covered under standard hull and machin-

196 Williams, supra note (170), p.283
197 Art. V.8 CLC, De la Rue, Anderson, Shipping and the Environment, p.733
198 <www.itopf.com>, [8.10.2021]
199 Hazelwood, P&I Clubs: Law and Practice, p.182
200 Hazelwood, supra note (195), ex. Skuld Rules 14.1.2
201 Ibid, p.390
202 Commentary, Nordic Marine Insurance Plan, Clause 12-1

ery conditions.[203] For instance, costs in connection with the removal and destruction of contaminated bunkers, lubricating oil, etc. must also be covered by the ship's Hull Policies.[204] Such cleaning costs may nevertheless be recoverable under the P&I policy as costs of measures to avert or minimize loss, if the risk of pollution is severe and critical.[205]

In addition, the Club incurs a legal liability to pay compensation to public authorities as a result of complying with official orders or directions given by government or authorities of the coastal state affected by the casualty in order to prevent or minimize pollution. If such expenses are part of the normal operation or maintenance of the ship, they will not be reimbursed by the Club.[206]

3.4 Liability to salvors

Almost all direct claims arising out of salvage services are covered by hull policies of the vessel. However, there are cases, such as the remuneration regardless of whether or not there is a "threat of damage to the environment" under SCOPIC (Special Compensation P&I Clause)[207], incorporated within the Lloyd's Open Forms (LOF),[208] that is covered by P&I policy.[209]

The general principle of salvage is that anyone who voluntarily saves or tries to save maritime property of a ship in danger, is entitled to claim a financial reward. Three elements are important for a maritime salvage act; voluntariness, danger and success, which are illustrating under the principle "no cure- no pay", as no salvage reward will arise if there has been no success. The LOF and the 1989 Salvage Convention have codified salvage law, but they will not be discussed in this thesis.

What is noteworthy is that it became quickly evident that salvage rules were not adequate in terms of new environmental concerns arising out of a maritime casualty and, in particular, out of an oil spill. It was seen that prevention of pollution was more important and therefore a special compensation was introduced in cooperation between International Group of P&I and

203 ibid, Clause 12-1
204 ibid
205 ibid
206 Hazelwood, surpa note (195), p.183
207 §2 SCOPIC Clause 2020
208 The LOF Form is periodically revised or updated and the latest version is LOF 2020 <https://www.lloyds.com/resources-and-services/lloyds-agency>, [20.10.2021]
209 Gold, Gard Handbook on P&I insurance, p.194

the underwriters of the Lloyd's Open Form to incorporate cases involving damage to the environment.[210] This special compensation up to 30% or in exceptional circumstances up to 100% of their expenses, is payable regardless of whether has been a successful salvage operation, but as long as salvors can show that they have prevented or minimized damage to the marine environment.[211] The P&I Clubs updated their rules in accordance with the new principles under the amended Salvage Convention, so that cover for special compensation was available where the Convention imposed such liability to the owners.[212]

In order to encourage salvors to undertake difficult salvage operations and eradicate the concerns of P&I clubs and shipowners that salvors could unnecessarily prolong the salvage operation to claim more expenses under special compensation, the SCOPIC was approved by the IG of P&I Clubs and introduced as supplementary to the Lloyd's Form Salvage Agreement. It is included in salvage contracts as an alternative remuneration to salvors and in fact payments to the salvors have commonly taken the SCOPIC remuneration rather than the special compensation under the 1989 Convention.[213] SCOPIC clause requires security of USD 3 million[214] as guarantee for the salvors, provided in practice by the P&I Clubs. A comparison between the salvage awards would be outside of the scope of this thesis.

Accordingly, the P&I Club rules provide reimbursement to the owners who have paid the salvor either under the terms of SCOPIC or the Salvage Convention or an agreement approved by the Club.[215]

3.5 Cover for fines and criminal liability

It is also common that the local authorities may impose civil and criminal fines on the shipowner or the master, or even both, as a result of oil spills from the vessels. Most Clubs define

210 Art. 1(d) Salvage Convention 1989
211 Art. 14 Salvage Convention 1989
212 Gold, supra note (187), p.193
213 De la Rue, Anderson, Shipping and the Environment, p.736
214 §3 SCOPIC Clause 2020
215 Hazelwood, Supra note (202)

fines as "civil penalties, penal damage and other impositions similar in nature to fines".[216] Of particular interest is the possible sanction imposed by authorities under national criminal codes, such as the Norwegian Penal Code, Section 240 "Serious environmental crime", according to which any person who with intent or gross negligence a) pollutes the living environment in a way that becomes significantly harmed or threatened by such harm, or b) abandons or empties waste or other substances presenting an obvious risk of consequences, can be penalized by imprisonment.

Civil or criminal fines or other penalties for breach of safety regulations imposed are generally not available under Club Rules, which expressly exclude fines under the coverage for pollution liability.[217] However, depending on the circumstances, fines may be available,[218] yet subject to certain limits. The Club Rules usually classify the penalties for which cover is available into two categories: fines arising from accidental charges which are subject to the criteria provided by the Club Rules and usually covered by the Club, and fines resulting from intentional discharges, of which the indemnification depends on the discretion of the Club Board.[219]

Regarding the first category, P&I coverage of IG includes pollution fines for accidental discharges in violation with MARPOL -i.e., accidental discharge of oil overboard through equipment malfunction during cargo pumping or bunkering operations.[220] Liabilities arising from the accidental escape or discharge overboard under BWMC -i.e., through a faulty approved ballast system- fall also within the scope of the first category of penalties of the P&I coverage.

Cases in the second category, may include intentional discharges under MARPOL – i.e., due to malfunction of oil filtering equipment which have been knowingly disregarded by owners or crew members,[221] or fines involving deliberate non-compliance with ballast water requirements under BWMC, fall in the discretion of the Clubs. In such cases, Members will be required to satisfy the Members' Committee that all reasonable steps had been taken to avoid the event giving rise to the fine in order to get compensation for the fines.

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216 Ibid, p.169
217 Gard Rule, 38.1.a, Skuld 14.1
218 i.e. Gard Rule 47.1.c, Skuld Rule 19, Swedish Club Section 6
219 De La Rue, Supra note (202), p.737
220 Ibid, p.1085
221 Ibid

If a violation committed by the master or the crew, without knowledge of the Club, the cover of fines will be assessed in a discretionary basis, too. If the fines are imposed in relation to acts, omissions or defaults of the crew whilst acting within the scope of their employment, if the insurer is satisfied that the assured took reasonable steps to avoid the event that gave rise to the fine and if the insurer has agreed to the amount of the reimbursement of the crew member, the reimbursement will be provided by the Club. Therefore, the availability of cover will be considered on a case-by-case basis and, for instance, cover will not be made available for fines that are imposed on a Crew member for the commission of a crime in circumstances where there is evidence that the relevant Crew member was involved in the crime. In any case, cover is not available for any liabilities or expenses that arise out of consequence of the willful misconduct of the Member, which constitutes a clear defense for the insurers.

3.6 Subrogation rights of the insurer

The doctrine of subrogation derives from the nature of the marine insurance contract as contract of indemnity.[222] It is the right of the insurer to "step into the shoes of the insured" when a loss has been paid and ensures that the insured will not make any profit out of a loss for which indemnity has been received.[223] The insurer has the right to litigate in the name of the insured, who has been indemnified, in order that the insurer can recover some or all of the indemnity from those who have been responsible for the loss in the first place.[224] The most common instance of this is when the insurer can exercise the subrogation right against the third party, i.e. against the other colliding vessel that is wholly or partly to blame and recover that proportion of the damage caused from oil spill. Other example will also be if a recourse action is to be brought against any party, whose liability for pollution is excluded, because of the channeling provisions of liability under CLC, HNS[225] that protects a wide range of parties including pilots, charters, managers, operators, salvors, but preserves the owner's right of recourse against them.

This right is also provided under the Fund Conventions, according to which the P&I insurer can recover claims for costs incurred in taking preventive measures exceed the owner's liabil-

222 Arnould, Law of Marine Insurance and Average, p.1638
223 Gold, Handbook on P&I insurance, p.86
224 De La Rue, Shipping and the Environment, p.167
225 Ibid. BOPC has different effect on channeling of liability.

ity under CLC and exercise the subrogation right to seek recovery of this excess.[226] The Supplementary Fund for compensation for oil pollution damage and the HNS Fund provides similar subrogation rights to those enjoyed by the Fund 92.[227]

4. CHALLENGE FOR A SUSTAINABLE INSURANCE

4.1 Environmental awareness and emission control

As it has been illustrated, the marine insurance industry has already established a special regime for investigation of pollution incidents and assessment of the damage to deal with oil pollution liability. New challenges are emerging and the insurance industry is expected to face them as appropriate, as well.

Shipping has been the most environmental-friendly way of transport, as it consumes the lowest amount of energy per ton-mile of all transport modes.[228] In the past decade, there has been a remarkable movement towards de-carbonization in shipping,[229] since the "dirty" heavy fuel oil containing a high quality of sulphur and other pollutants pose challenges under the claim

226 ibid, Art. 9 Fund 92
227 Art. 9 Supplementary Fund, Art. 41 HNS
228 Wijnolst, Wergeland, Shipping Innovation, p.658
229 Decarbonization as term refers to the changing ratio of carbon to hydrogen atoms with each succeeding energy source, Wijnolst, supra note (146) p.788

of sustainability. The attempts of decreasing ship emissions depend to a large extent on the current structure of the world fleet, as it takes approximately 25 years to renew the fleet.[230]

Important global efforts to reduce greenhouse gas emissions from shipping are the Global MTTC Network (GMN) – titled "Capacity Building for Climate Mitigation in the Maritime Shipping Industry"[231] by IMO and the "Call to Action for Shipping Decarbonization",[232] committed to taking concrete actions to make zero emission vessels and fuels by 2030 and to an equitable decarbonization of the maritime supply chain by 2050, among the participants are P&I Clubs of Skuld and Gard.

Further, on January 2020, a new limit on the sulphur content in the fuel oil used on board ships came into force, known as "IMO 2020", following an amendment to MARPOL Annex VI.[233] This means ships must use fuel oil, which is inherently low enough in sulphur, or install an appropriate exhaust "alternative" method, in order to meet the IMO requirements. Monitoring compliance and enforcing the new limit falls under the remit of Member States that are Parties to MARPOL Annex VI.

The IMO had adopted earlier in 2018 an initial strategy on the reduction of GHG emissions from ships, setting out a vision which confirms IMO's commitment to reducing GHG emissions from international shipping and to phasing them out as soon as possible. In particular, the aim is to reduce CO2 emissions per transport work, by at least 40% by 2030 and the reduction of the total annual GHG emissions by at least 50% by 2050. This strategy includes a specific reference to "a pathway of CO2 emissions reduction consistent with the Paris Agreement temperature goals".[234]

According to the latter, the Paris Agreement sets an ambitious direction for the climate regime including legally binding obligations in relation to parties, they so called "Nationally Determined Mitigation Contributions".[235] Its goal is to limit global warming to well below 2 de-

230 Ibid. p.658
231 <https://www.imo.org/en/OurWork/PartnershipsProjects/Pages/IMO-EuropeanUnionProject.aspx>, [7.10.2021]
232 <https://www.globalmaritimeforum.org/content/2021/09/Call-to-Action-for-Shipping-Decarbonization.pdf>, [7.10.2021]
233 <https://www.imo.org/en/MediaCentre/HotTopics/Pages/Sulphur-2020.aspx>, [8.10.2021]
234 <https://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx>, [7.10.2021]
235 Art. 3, 4.2 PA

grees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.[236] The thesis will not elaborate on the Convention due to constraints in space, but its provisions[237] on loss and damage encourage cooperation and facilitative efforts regarding risk insurance facilities, climate risk pooling and other insurance solutions.[238]

Emissions from ships have also taken center stage in the EU, since the European Commission has expressed its intention to bring shipping under the European Green Deal, [239] while shipping will be added to the EU Emissions Trading System (ETS),[240] according to which ship owners will have to buy permits under the ETS when their ships pollute or else face possible bans from entry to EU ports.

Since the main contributor to greenhouse gas emissions from shipping is CO2, these emissions are directly connected to a ship's fuel consumption.[241] Reducing CO2 emissions and changing to renewable fuels is foremost a matter of improving energy efficiency. The decarbonization of energy that would inevitably lead to a hydrogen future and other solutions - batteries, biofuels, ammonia- that already under way. But in order to induce the shipowners to phase out CO2 emissions, a stronger incentive has to be introduced and the role of P&I clubs can be instrumental in tackling and limiting the problem, as they did so in case for oil pollution liabilities.

Climate change is expected to directly affect shipping through more severe weather and new trade routes. As the Arctic ice grows smaller, especially in the summer, shorter routes from China to Europe will become available through the Arctic.[242] That will also impact the insurance portfolio. To identify new exposures and market opportunities, insurers need to understand the consequences and knock-on effects of specific climate hazards in different geographic areas. Insurers can accomplish this task by using advanced- techniques to assess climate data to address new and various climate hazards that are likely to happen, such as the sea

236 Art. 2 PA
237 Art. 8(4)(e), (f) PA
238 Sands, Peel, Principles of International Environmental Law, p.674
239 <https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541>, [10.10.2021]
240 <https://ec.europa.eu/clima/policies/transport/shipping_en>, [10.10.2021]
241 Anderson and others, Shipping and the Environment: Improving Environmental Performance in Marine Transportation, p.180
242 Anderson, (supra note 237), p.182

level rise, risk of floods, fires or heatwaves and, hence, to inform pricing and portfolio adjustments.

It is too early to speculate whether the goal of de-carbonization of shipping will be achieved, but in such case the regime of the oil pollution Conventions (CLC, BOPC) will be left under question. In any case, it is of great importance to assess the role of marine insurance during the decarbonization transition.

4.2 International response of Insurance to GHG emissions

Despite the clear international recognition of the need to mitigate the GHG emissions, as it has been illustrated under the above section, there is a lot to be done in the insurance sector to deal with such challenges. This decade leading to 2030 represents the most critical period for the world to achieve the aims of the Paris Agreement and there is a major opportunity for marine underwriters to create a new business portfolio and to be a facilitator in the global move to a greener society that phases out oil.[243]

On 11 July 2021, global insurance and reinsurance leaders established alliance to accelerate transition to net-zero emissions economy.[244] The insurance market is truly concerned to integrate sustainability as a strategic initiative. Soft law has already been developed, such as the UN Sustainable Development Goals,[245] UN Global Compact Principles[246] and Principles for Sustainable Insurance (PSI),[247] which may not be legally binding, but they can be valuable to

243 Portnews, "Offshore energy underwriters should welcome a low carbon future, says IUMI", [10.10.2021]
244 UN, Net-Zero Insurance Alliance, https://www.unep.org/news-and-stories/press-release/global-insurance-and-reinsurance-leaders-establish-alliance>, [24.10.2021]
245 Among them SDG 13 "Climate Action", SGD 14 "Life below Water", <https://sdgs.un.org/goals>, [24.10.2021]
246 <https://www.unglobalcompact.org/what-is-gc/mission/principles>, [24.10.2021]
247 <https://www.unepfi.org/psi/>, [24.10.2021]

strengthen the shipowners' and insurers' dedication to agreements and may even establish a legal base for following legislation.

The Policy Agenda of the International Union of Marine Insurance released on 11 August 2021,[248] referred to the United Nations Environment Programme - Finance Initiative: PSI and promotes the ESG initiatives within the marine insurance. It indicates that insurers must assess new risks and potential safety concerns to play an important role towards decarbonization.

The PSI[249] is not intended as a formal standard which requires compliance, but it serves as an optional support tool to assist the insurance industry to build a stronger ESG expertise that puts sustainability at the heart of risk management in pursuit of a more progressive and better managed world. According to the PSI, the definition of sustainable insurance is "a strategic approach where all activities in the insurance value chain, including interactions with stakeholders, are done in a responsible and forward-looking way by identifying, assessing, managing and monitoring risks and opportunities associated with ESG issues. Sustainable insurance aims to reduce risk, develop innovative solutions, improve business performance, and contribute to environmental, social and economic sustainability". A better management of the challenges of the ESG will strengthen the insurance's contribution to build a sustainable industry.

Almost all the P&I Clubs of the International Group have initiated sustainability standards to ensure that the ESG requirements are fully implemented,[250] by releasing sustainability reports; "organizational reports that gives information about ESG performance and impacts."[251] The aim is to reduce their carbon footprint and support the decarbonization transition in shipping. The Club's approach to sustainability is starting to become a focus for its stakeholders in order to actively prevent and manage the consequences of maritime losses.

248 <https://cefor.no/industry-policy/iumi-policy-agenda/>, [24.10.2021]
249 <https://www.unepfi.org/psi/>, [24.10.2021]
250 The American Club-Annual Report 2020/2019, p.20, Britannia P&I Sustainability Report 2021 Executive Overview, p. 4-5, The London P&I Club, Annual Report & Financial Statements, 20 February 2021, p.7, North-Annual Review 2021, p.7, The Swedish Club, Annual Report 2020, p.32, The Standard Club Ltd- Annual Report 2021, p.16
251 <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>, p.64, [8.10.2021]

Working groups of P&I Clubs, such Skuld and Gard, have been created to assess climate change risks based on the International Panel on Climate Change (IPCC).[252] According to the latter,[253] effective policy responses have to be taken in order to limit global warming to 1.5C above pre-industrial levels, but would require "rapid, far-reaching and unprecedented changes in all aspects of society". However, the sustainability standards under the P&I reports seem quite vague and generic, without actual effect yet.

Finally, the EU Proposal of Corporate Sustainability Reporting Directive[254] amends the EU Non-Financial Reporting Directive,[255] including insurance companies. The EU sustainability reporting standards will be adopted by 2022, introducing a general EU-wide audit requirement for reported sustainability information that need to be consistent with the ambition of the EU Green Deal, the Sustainable Finance Disclosure Regulation and the Taxonomy Regulation, but will not be assessed further in this thesis.

4.3 UN Recommendations on Insuring the Climate Transition

According to the recommendations of the UN Environment Programme, that is based on PSI and addresses some of the most challenging Task Force on Climate-related Financial Disclosures (TCFD)[256] to implement climate change-related risks,[257] the possible risks that can be covered long term can be divided into physical risks, transition risks and litigation risks.

Physical risks are driven by changes in the severity and frequency of extreme weather events, (heatwaves, floods, wildfires, droughts) as well as chronic climate factors, such as sea level rise. They comprise the effects of hazard, vulnerability and exposure.[258]

Transition risks are mainly driven by changes in regulation, technologies and their relative costs, as well as market demand and prices, potentially changing business dynamics in the

252 Gard, Sustainability Report 2020/2021, p.18, Skuld, Sustainability Report 2020/21, p.24
253 IPCC Reports, <https://www.ipcc.ch/reports/>, [8.10.2021]
254 <https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en>, [13.10.2021]
255 Directive 2014/95/EU
256 <https://www.fsb-tcfd.org/>, [8.10.2021]
257 UN Environment Programme, <https://www.unepfi.org/publications/insurance-publications/insuring-the-climate-transition/>, [8.10.2021]
258 Ibid, p.11

underlying economic sector of the insurance policyholder (e.g. from oil to renewables). Such an example is also the increase of carbon and other fossil fuel taxes and emissions trading schemes that could lead to raise of the premium for oil insurance coverage.

In terms of the litigation risks, they include litigation pertaining to physical implications of climate change and litigation pertaining to breaches of regulatory frameworks. These include those cases where a plaintiff has suffered or will suffer damage or health impacts directly linked to climate change (i.e. heatwaves), or is incurring expenses in response to the impacts of climate change (such as deviation of the sailing route), as well as cases where parties have brought actions demanding that governments or private entities reduce the emissions their activities generate. Yet based on the review conducted to date, insurers do not seem to have paid out claims based on climate change-related litigation. However, in responding to climate change lawsuits, more serious insurer's attention to climate change claims should be given to provide a settlement expertise as well as additional legal resources ensuring that climate change disputes will be thoroughly litigated and correctly decided.

The UN Recommendations on Insuring the Climate Transition could provide a useful tool for marine insurance companies to incorporate more effectively the longer-term climate change risks in their policies. It is certainly a challenge to support members and clients as they are taking the leap towards zero-emission solutions that protecting ocean industries in a sustainable way. Managing risks before liabilities are incurred is part of legal risk management and failing to identify potential risks and potential consequences may result in financial losses and losses of reputation.[259] Through the risk prevention and risk reduction and by sharing risks over many shoulders, such as the Pooling Agreement, the insurance industry can foster innovation and underpins the sustainable development in the industry. The P&I Clubs could incorporate a risk management strategy that supports the physical, transitional and litigation risks in order to play a leading role in the mitigation of climate change risks.

259 Mandaraka, Modern Maritime Law and Risk Management, p.1032

4.4 The role of P&I Clubs in tackling GHG emissions and possible insurance coverage for climate change

"Out of the box" thinking has become a buzzword, but it actually facilitates to think about concepts processes and methods that may offer new benefits and will be required to address the above challenges.

The ship insurers are probably the only parties among stakeholders of the shipping industry who do not welcome any upgrading of ship standards on the ground that it might increase the number of claims and their financial exposure.[260] However, if investment is made to control the risk of climate change pro-actively, the cost of prevention or minimization of risks will be less than the costs of reacting to risks after occurrence. The expertise and financial recourses of Clubs should be benefitted in order to face the challenge of climate change.[261]

As has been demonstrated already in the above chapters, the P&I Clubs have successfully handled the oil pollution risks thanks to their mutuality, the reinsurance system and the cooperation for establishing a mandatory coverage for pollution liability in order to settle the pollution claims with the IOPC Fund. After the 'Torrey Canyon' incident had occurred and public attention was focused on oil pollution, the marine industry decided to tackle the problem of oil pollution as a priority, despite the perplexity of compensation for damage caused. The experience of the IOPC Fund represented a valuable tool and a useful precedent regarding compensation issues in the environmental area. Therefore, the collective voice of the Clubs and the gathering of data in dealing with such novel problems of assessing damages, risks and questions of proof is of critical importance. Likewise, it is imperative for the marine industry to establish a common systematic approach of risk management to improve the Club's policy to align with sustainability challenges and namely with decarbonization and net-zero emissions.

Indeed, the question where the line should be drawn between claims which are admissible and those which are too remote has always been a fertile source of argument and in particular in relation with environmental claims.[262] The definition of "pollution damage" under the liability

260 Yubing Shi, Climate Change and International Shipping, p.228
261 Ed Davies, TradeWinds, 'A hard market is needed now to keep P&I system alive', [15.11.2012]
262 Chapter 2.2

Conventions makes it clear that loss of profit may be recovered when it results from impairment of the environment, without physical damage necessarily being required to the claimant's property. It should not however be interpreted as meaning that all such claims are automatically recoverable; however, remote they may be, but emphasis should be attached to the fact that the definition does not expressly require the loss to be a direct result of the impairment of the environment.

Different practical problems may result from contamination of oil, not only from pollution due to discharges, but also hazards to health and environment due to effects from climate change and the GHG emissions emitted by ships.[263] These longer-term consequential losses may then be envisaged. Fishermen who suffer lost earnings as a result of reduced catches of fish and hoteliers who have suffered lost bookings would normally fall out of this traditional test of remoteness. In practice, however, these claims have very often been paid by the P&I Clubs, and by the IOPC Fund, despite the legal defenses which might be argued.[264] The coverage of pollution damage under P&I rules is broad enough to cover indirect pollution claims under the international Conventions, as has been illustrated above in section 3.2.

Similarly, longer-term risks of climate change due to GHG emissions emitted by shipping can't be easily quantified and assessed due to remoteness of damage. What is suggested in this thesis is the pooling and reinsurance of risks and losses related to climate change. Damages due to effects of climate change, such the physical risks as detailed above, could lead to further extensions of the concept of "pollution damage" to include still remoter parties.

Possibly, this could be claimed under the "Omnibus Rule" of P&I, a catch-all provision as the board of Clubs is in absolute discretion to cover expenses incidental to the operation of ships. These are liabilities and costs which are not covered and not expressly excluded by the Club Rules, but which are incidental to the business of owning, operating or managing ships and which in the opinion of the director of the Club fall within the scope of the association.[265] The pollution damage can arise either from GHG emissions because of operating ships, and thus, this kind of longer-term pollution can be envisaged and covered under policy terms.

Therefore, P&I Clubs could possibly insure these long-term risks under the 'Omnibus Rule' that applies to liabilities outside the Rules. However, the claims under the Omnibus Clause

263 Anderson, supra note (240), p.66
264 De La Rue, Liability for Damage to the Marine Environment, p.256
265 De la Rue, Anderson, Shipping and the Environment, p.738

generally account for a very small proportion of the total claims of the P&I Clubs and the availability of this "catch-all" provision in practice is exceptional.[266]

Other possibilities to mitigate climate change risks would be, for instance, the use of heat-map or natural hazard map that can assist insurers determine risks and opportunities, since the sea level rise over the coming century and the increase in average global temperatures increases the probability of floods, cyclones and wildfires—regardless of location. The UN report provides a sample of heat-map illustrating physical risks of high hazard rating, and considering, for example, that a ship might have to deviate from its route due to heatwaves in certain maritime zones, it would result in expenses that could be foreseen and covered under the insurance policy. Therefore, insurers shall rearrange portfolios to avoid long-term exposure to climate events, since the increasing global average temperatures represent the greatest drivers of physical, transitional and litigation risks.

Further, insurers should reprice assets exposed to climate risk and reevaluate their investment-allocation strategies, particularly for carbon-intensive investments, for example by increasing the premium for pollution liability caused by oil or creating higher deductibles for such insurances, opposed to lower for the coverage of renewable energy insurances. In such way, insurers could incentivize the shipowners to phase out coal-fired power from the energy mix of the vessels.

Another initiative would be that insurers could invoke certain obligations in the context of the duty of due diligence of the assured to better implement sustainability standards, such as use of heatmaps on board and other climate data or strictest implementation of "slow steaming clauses", since climate change will affect wind speed and slowing down ships can significantly reduce energy use and emissions. The Members of the Clubs should be diligent in complying with all the regulations and obligations related to GHG emissions and the Clubs should not cover fines imposed due to non-compliance with these regulations.

To sum up, it has been assessed that the P&I Clubs would be affected in terms of economy and reputation over time due to the transition to decarbonization and net-zero economy. At the present, the pollution coverage does not incorporate any policy that can deal with the challenge of longer-term risks of climate change. The role of insurance can be determinant by creating incentives for the assureds to cover these risks and exercise 'peer pressure' to other

266 Hazelwood, P&I Clubs: Law and Practice, p.191

insurances to expand sustainability initiatives. The ESG Committee of the IG as responsible for the ESG Strategy[267] shall better monitor the relevant reports and make recommendations for possible changes to effectively incorporate the ESG Strategy. Hence, it is crucial to enhance sustainability through collective responsibility and commitment, not as a matter of greenwash, but as a continual process with the ultimate goal of long-term benefits for both the maritime industry and the environment.

267 <https://www.iggroup.com/about-us/leadership/board-committees#esg-committee>, [13.10.2021]

5. CONCLUDING REMARKS

This thesis has illustrated that the international legislators have expended a lot of efforts trying to eliminate the uncertainties of pollution liabilities and cover a large number of pollution claims. Even though occasionally the pollution Conventions lack clarity, it is important that they have been adopted by a considerable number of States. As it has been elaborated, the CLC, BOPC and HNS present some differences, but overall the system of compensation established in conjunction with the concepts of strict liability, channeling of liability and compulsory insurance ensures that adequate compensation is payable to the victims. All these factors together with the cooperation of P&I Clubs have greatly contributed to the improvement of position of victims of pollution damage.

The aim of the second chapter in terms of whether prompt and adequate compensation is received for pollution damage under the current framework has been satisfied to a great degree. However, it has been demonstrated that the pollution regime does not cover every conceivable pollution incident. The liability Conventions per se include exclusions of liability and together with the complexity of the damages recoverable, causation and remoteness of damage result in some gaps within the system. Pollution incidents which would fall outside of CLC, BOPC, HNS regime would be;[268] (a) oil pollution from an offshore installation with which a vessel has collided - unless a FSU is considered ship, as discussed above,[269] (b) pollution from non-persistent oil that is not covered as "oil", unless it may be covered by HNS Convention when will be in force, (c) pollution damage to property outside of the territory or exclusive economic zone of a contracting state, (d) pollution caused by those other than the registered owner, such charters, salvors, ship repairers and others, (e) in case of the exclusions of the strict liability, including war and hostilities, intentional acts, governmental negligence and contributory negligence.[270]

The compensation available under the international regime is not adequate to cover all the costs and losses, while compensation for environmental damage is restricted to the costs of reasonable measures of reinstatement actually undertaken or to be undertaken, as well as the costs of preventive measures, which are not considered full compensation. Even though the

268 Tettenborn, Kimbell, Marsden and Gault on Collisions at sea, p.503
269 Chapter 2.2
270 Art. III (2) and IV (3) CLC

IOPC Fund has received numerous claims for environmental damage, the rule is that compensation for the damage to marine environment per se is not covered, unless it can be assessed in monetary terms. Even though the pollution damage may affect more than one country and the law of more than one country may apply when determining liability and damages, this does not affect the scope of cover of the Conventions.[271]

Overall, it is illustrated that the international regime has achieved widespread success and acceptance; with the example of Norway's incorporation of the Conventions into the NMC. There is, however, the notable exception of the US, which are encouraged to participate in this regime to achieve harmonization, since international problems require international solutions.

Further, the prosecutions of MARPOL violations including either accidental or intentional oil and other harmful substances discharges, especially when foreign flag vessels enter US ports, in conjunction with the breaches of BWMC, pose a serious threat to the enforcement of the pollution international Conventions. When surveillance and enforcement is lacking, it is hard to prevent illegal discharges into the sea. To achieve full compliance, stronger commitment with the international Conventions is needed from the shipping industry's various stakeholders, including P&I Clubs.

In terms of the pollution insurance coverage, the P&I Clubs have a significant role in respect of compensation regime for pollution damage under the international Conventions that have been assessed. Their key characteristics have contributed a valuable precedent for dealing with compensation issues in the environmental area. The broad scope of pollution coverage under the Clubs' Rules meets the compulsory insurance imposed by the international Conventions, including also clean up expenses, costs for complying with governmental orders, liability to salvors and coverage for fines. Therefore, regarding the aim of the third chapter to review whether the P&I coverage for pollution risks is comprehensive under the international Conventions, it has been concluded that the coverage seems thoroughgoing, except for some gaps in terms of the coverage of fines of which the indemnification depends on the discretion of the Club.

The experience of the P&I Insurance should be availed towards the new challenges of the marine industry that has to phase out the oil and cut the GHG emissions. There are some simi-

271 Williams, Gard-Guidance to the Rules, p.289

larities to be taken into consideration tackling the issue of oil pollution and GHG emissions, since part of the problem is part of its solution. The remoteness of damage and the causation represent a large portion of the issue, but already the international regime has compensated indirect hazards to the environment. The UN Reports on TCFD and the "Omnibus Rule" might serve as a useful tool to cover claims related with the longer-term risks of the climate change, but the ESG Committee of IG will be responsible to provide oversight on behalf of the IG Group's ESG strategy.

It is evident that the current framework cannot correspond to the challenges of sustainability that the shipping industry is dealing with, namely decarbonization and transition to net-zero emissions. IMO recognizes that reduction of GHG emissions is international shipping has become a priority, but there is not legally binding decision yet. The implementation of the UN Sustainable Goals relies still on countries' own sustainable development policies. Although not legally binding, the Member States must ensure its consistent application and establish a national framework for achieving these Goals. Towards this challenge, all stakeholders are expected to contribute to the realization of the new agenda to achieve a sustainable and energy efficient future. Therefore, political compromises need to be taken, primarily from the ESG Committee of IG, to raise further awareness on the marine insurance sector, and in particular on P&I Clubs, in order to take further action and implement the UN Sustainable Goals and the UN Recommendations on Insuring the Climate Transition in a consistent way and reevaluate their approach to how they manage longer-term environmental risks. The international marine insurance industry may take the opportunity to consider further strengthening the legal framework, as appropriate, in order to face the sustainable challenge of decarbonization in shipping and address the escalating climate change risks.

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