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**Liability for Pollution Damage from Offshore Oil Spills:
The CLC and Fund Conventions, the EU's Environmental Liability
Directive and their implications for New Zealand Law**

A thesis
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of the requirements for the degree
of
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Abstract

This thesis will apply conventional methods of legal analysis to ask how New Zealand's offshore petroleum liability regime came to be created from a pair of international shipping liability and fund conventions, and explaining how the EU and Member States developed and implemented the Environmental Liability and Offshore Safety Directives. New Zealand's government has actively encouraged growth in its offshore petroleum sector in the belief that seabed drilling can be carried out safely and profitably at any depth, and that the owners of offshore petroleum installations will pay administrative penalties and damages to compensate for all oil pollution claims. The recent *Deepwater Horizon* disaster has had global repercussions for operators and regulators, but has sparked little discussion of legal liability issues in the New Zealand context.

New Zealand's offshore petroleum liability regime used two international shipping conventions which had created a system of strict and limited liability for oil pollution damage, channelled to the shipowner, and backed up by mandatory insurance and an industry-fed compensation fund. The shipping conventions became the standard model for many regional and international environmental damage liability regimes, because there is no international offshore liability convention, but New Zealand's offshore petroleum liability regime has diverged from this ideal. New Zealand sought to capture a broad range of owners and operators of offshore installations in a net of strict and unlimited liability, but without providing adequate mandatory insurance regulations or a compensation fund. Meanwhile, the European Union created its own environmental damage liability regime and only later applied it to offshore oil and gas operators, but also without providing harmonized mandatory insurance regulations or an EU-wide compensation fund. Much like New Zealand, EU Member States have struggled to implement consistent and predictable environmental liability laws, or to develop appropriate financial security guarantees.

Analysing New Zealand's offshore petroleum liability regime in this context accomplishes two overall objectives. First, a detailed examination of the international shipping conventions will provide guidance about how New Zealand

should interpret, quantify and allocate liability for the key elements of pollution damage liability. Second, the comparison of New Zealand and the EU Member States' experiences demonstrates the difficulties that nations face in adopting disparate over-arching international or supranational legal frameworks to create domestic statutory liability systems. The discussion has profound implications, not just for the specifics of any one country's liability laws, but also for future attempts to create a practical and durable regional or international offshore petroleum liability and fund convention.

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Table of Acronyms

ACC	Accident Compensation Corporation
AIPN	Association of International Petroleum Negotiators
AMPLA	Australian Mining Petroleum Law Association
BBL	Barrel (1 bbl = 159 litres)
BGB	Bürgerliches Gesetzbuch
BOP	Blowout Preventer
BOSCEM	Basic Oil Spill Cost Estimation Model
BP	British Petroleum
BPXP	BP Exploration & Production, Inc.
CCS	Convention on the Continental Shelf 1958
CHS	Convention on the High Seas 1958
CLC Convention	International Convention on Civil Liability for Oil Pollution Damage
CLEE	Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources
CMA	Crown Minerals Act 1991
CMI	Comité Maritime International
COPE Fund	Compensation for Oil Pollution in European Waters Fund
CRISTAL	Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution
CWA	Clean Water Act
DECC	Department of Energy and Climate Change
DMP	Discharge Management Plan
DNV	Det Norske Veritas
DNV GL	Det Norske Veritas Germanischer Lloyd
EC	European Community
ECD	Environmental Crime Directive
ECJ	European Court of Justice
EESC	European Economic and Social Committee
EMSA	European Maritime Safety Authority
EC Treaty	Treaty Establishing the European Community
EEC	European Economic Community
EEZ	Exclusive Economic Zone

EEZ Act	Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012
ELD	Environmental Liability Directive
EMSA	European Maritime Safety Authority
EU	European Union
FF	French Francs
FOIE	Friends of the Earth International
FPSO	Floating Production, Storage and Offloading unit
FSU	Floating Storage Unit
GBP	Great Britain Pound
GCCF	Gulf Coast Claims Facility
GMEP	G20 Global Marine Environment Protection Initiative
HEA	Habitat Equivalency Analysis
HP/HT	High Pressure High Temperature
HSEA	Health and Safety in Employment Act 1992
ICJ	International Court of Justice
IMCO	International Maritime Consultative Organization
IMO	International Maritime Organization
IMPEL	European Union Network for the Implementation and Enforcement of Environmental Law
IOPC Fund	International Oil Pollution Compensation Fund
ITOPF	International Tanker Owners Pollution Federation Ltd
JOA	Joint Operating Agreement
JRC	EU Commission Joint Research Centre
LOGIC	Leading Oil & Gas Industry Competitiveness
LLMC	Convention on Limitation of Liability for Maritime Claims 1976
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
MEPC	Marine Environment Protection Committee
MHR	Major Hazard Report
MIRT	Maritime Incident Response Team
MMS	United States Minerals Management Service
MNZ	Maritime New Zealand
MODELKEY	Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on Marine and Freshwater Ecosystems and Biodiversity

MODU	Mobile Offshore Drilling Unit
MOSRA 2010	Marine Oil Pollution Risk Assessment project 2010
MPA	Marine Pollution Act 1974
MPD	Marine Protection Document
MPR	Marine Protection Rules
MPRS	Marine Pollution Response Services
MRI	Mechanical Risk Index
MSA	Maritime Safety Authority
MSFD	Marine Strategy Framework Directive
MTA	Maritime Transport Act 1994
NZP&M	New Zealand Petroleum & Minerals
NEBA	Net Environmental Benefit Analysis
NOC	National Oil Company
NOSC	National On-Scene Commander
NRD	Natural Resource Damages
NRDA	Natural Resource Damage Assessment model
NZ	New Zealand
NZD	New Zealand Dollars
NZOPF	New Zealand Oil Pollution Fund
OCIL	Oil Casualty Insurance Ltd
OCIMF	Oil Companies International Marine Forum
OECD	Organization for Economic Co-operation and Development
OEE	Operator's Extra Expense insurance policy
OGP	International Association of Oil and Gas Producers
OGUK	Oil and Gas Authority (UK)
OIL	Oil Insurance Ltd
OILPOL	Oil Pollution Convention of 1954
OLF	Norwegian Oil and Gas Association
OPA	Oil Pollution Act of 1990
OPOL	Offshore Pollution Liability Agreement
OPRC	International Convention on Oil Pollution Preparedness, Response and Cooperation
OSD	Offshore Safety Directive
OSLTF	United States' Oil Spill Liability Trust Fund
OSPAR	Convention for the protection of the marine environment of the North Atlantic

OSR	Oil Spill Response
PEPANZ	Petroleum Exploration & Production Association of New Zealand
PRP	Potentially Responsible Party
REA	Resource Equivalency Analysis
RMA	Resource Management Act 1991
RUB	Rubles
SDR	Special Drawing Right
SEA	Single European Act
SME	Small and Medium-Sized Enterprises
STS	Spanish Supreme Court
TCS	Thomas Clarke Shipping Pty Ltd
TEC	Treaty Establishing the European Economic Community
TEU	Treaty on European Union
TFEU	Treaty on the Functioning of the European Union
TOVALOP	Tanker Owners' Voluntary Agreement Concerning Liability for Oil Pollution
UKOOA	United Kingdom Offshore Operators Association
UNCHE	United Nations Conference on the Human Environment
UNCLOS	United Nations Convention on Law of the Sea
UNEP	United Nations Environment Programme
USD	United States Dollars
USSR	Union of Soviet Socialist Republics
WCCP	Well Control Contingency Plan
WFD	Water Framework Directive
WOAD	World Offshore Accident Dataset
WTA	Willingness To Accept
WTP	Willingness To Pay

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1 Introduction

The blowout that destroyed the *Deepwater Horizon* oil rig in the Gulf of Mexico on 20 April 2010 killed 11 men, cost BP and its joint venture partners and contractors an estimated \$40.9 billion USD in fines and damages, and spilled approximately 4.9 million barrels of oil impacting the coastlines of five American states. It was the largest accidental oil spill in history, exceeded in size only by damage caused by the Iraqi army's deliberate targeting of 700 petroleum facilities following its retreat from Kuwait during the First Gulf War.¹ The incident has had profound ramifications for the global petroleum, shipping and insurance industries, casting serious doubt upon the safety of current and future offshore petroleum exploration and extraction operations. Because of the tremendous cost, it forces us to question the adequacy of existing domestic and regional liability and compensation regimes.

1.1 Research Question

The *Deepwater Horizon* oil well blowout led this thesis to ask a deceptively simple question. How does New Zealand law hold the owners of offshore installations and operations responsible for the costs of oil pollution damage from offshore oil spills? To answer that question, it was necessary to see how concepts and definitions of marine pollution damage were adopted from international shipping oil pollution damage liability and fund conventions into New Zealand law to create a domestic liability regime for offshore oil spills, and to compare that international regime with the EU's Environmental Liability and Offshore Safety Directives, highlighting their commonalities, their weaknesses and their strengths. This will enable the thesis to make recommendations that will improve New Zealand's approach to oil pollution

¹ Mervin F Fingas *Oil Spill Science and Technology* (Elsevier Science Ltd, Amsterdam 2010) Table 2.3: Largest Oil Spills in History at 13.

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damage from offshore petroleum installations and their exploration and extraction activities, and to cast light on the issue for anyone interested in the issue of liability for pollution damage.²

International shipping and coastal oil well drilling operate in quite different legal jurisdictions, however. Ships travel the world, bearing little legal relationship to the territories to which they may cause harm. This makes international shipping the natural target for international law. Offshore installations, on the other hand, are anchored or embedded within the jurisdiction of an individual state. The state encourages and benefits from economic activities within its territorial waters and exclusive economic zone, and it is best placed to monitor and regulate those activities. The close proximity of offshore installations to a particular territory undermines but does not entirely eliminate the argument that international law should apply. It follows that it is not an easy thing to take international legal concepts and institutions and apply them to domestic law, and the process has caused problems for both New Zealand and European lawmakers.

Offshore petroleum activities are an important element of New Zealand's export economy, with earnings ranking only behind dairy and tourism. Soon after New Zealand established the right to control access to its vast EEZ, the push was on to extend offshore petroleum exploration to the full extent allowed. Production activities have been carried out in the Taranaki region quite safely for many years, but exploratory drilling is the riskiest stage of the production process, and petroleum operators were being offered permits to drill at even greater depths than those which claimed the *Deepwater Horizon*. At the same time, the New Zealand government appeared to be accepting the industry's assurances that deepwater drilling activities could be carried out quite safely, that any oil spills were likely to be minor and within Maritime NZ's capacities, and that it was unnecessary to consider the question of liability for any subsequent pollution damage. This thesis challenges those assumptions.

² Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56; Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66.

Introduction

New Zealand law provides administrative penalties for unlawful discharges of harmful substances, including oil, from offshore installations and operations, and a civil damages liability regime that holds the owners and operators of offshore installations and operations strictly liable for the preventing and remediating pollution damage caused by oil contamination. This offshore petroleum liability regime uses definitions sourced from two international shipping conventions; the International Convention on Civil Liability for Oil Pollution Damage 1969 and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (“CLC and Fund Conventions” or “shipping conventions”), later updated by the 1992 CLC and Fund Conventions.³

The shipping conventions work by channelling strict and limited liability for oil pollution damage to a single shipowner who must obtain insurance up to the limits of its liability, and that requires the importers of that oil to contribute to an international oil pollution damage compensation fund. New Zealand law holds the owners and operators of offshore marine structures and operations strictly liable for marine pollution damage caused by contamination of oil, using definitions of pollution damage and preventive measures adopted from those Conventions. However, while liability for offshore oil spills caused by drilling and production of petroleum from offshore seabed sources is still strict, term “owner” has been designed to capture a wide range of operators, permit participants, and their managers, agents and employees. This means that almost any person involved in drilling activities which cause an oil spill in New Zealand’s EEZ, could be subject to unlimited liability for the costs of preventing, remediating and compensating any damage claims. Furthermore, while the CLC and Fund Conventions oblige shipowners to maintain insurance up to the limits of their liability, and provide for that industry-fed compensation fund, New Zealand has been slow to require the owners of offshore installations to provide insurance, and the minimum insurance

³ International Convention on Civil Liability for Oil Pollution Damage 973 UNTS 3 (opened for signature 23 June 1969, entered into force 19 June 1975); International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 11 ILM 284 (opened for signature 18 December 1971, entered into force 16 October 1978); Protocol of 1992 to amend the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention 1992) 1953 UNTS 330 (opened for signature 27 November 1992, entered into force 30 May 1996); Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969, 973 UNTS 3, (opened for signature 27 November 1992, entered into force 30 May 1996).

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levels were inadequate for most of their history. The *Deepwater Horizon* has forced New Zealand lawmakers to reappraise the country's marine pollution damage legislation with respect to offshore petroleum exploration and extraction activities, and it is this reappraisal that this thesis seeks to address.

To be clear, New Zealand's offshore petroleum liability regime may have been based on international shipping law, but this thesis is about the oil pollution damage caused by offshore oil spills. By offshore oil spill, this thesis means any situation when large quantities of petroleum are accidentally released or discharged by an oil rig or drillship drilling for petroleum beneath the surface of the ocean within New Zealand's EEZ, but it could also refer to accidents involving pipelines, floating production storage and offloading vessels, and other related infrastructure. One of the key contentions will be that New Zealand's offshore marine pollution damage regime suffers from some unintentional but fundamental flaws because its authors failed to consider the consequences of obtaining definitions of pollution damage liability from the CLC and Fund Conventions, while diverging from the model of channelled and limited liability, backed up by mandatory insurance and an industry-fed compensation fund. As a result, there has been little scrutiny of the fundamental definitions of that liability, or whether the existing financial security requirements would be adequate to cope with the environmental and economic impact of a major offshore oil well blowout.

For example, if liability is not to be channelled to a single owner, then who will be held liable? New Zealand law may use the CLC Convention's definitions of pollution damage and preventive measures, but how is that liability defined, quantified and allocated? The definition of liability also has a bearing on standing. Is it only regulatory agencies that can bring claims, or will members of the public also be entitled to be compensated for damage to their property and interests? If liability is unlimited, then what are the implications for insurers, what level of insurance is to be required, and can offshore petroleum operators find products to match their pollution damage obligations? Are there any defences or exceptions to that liability, and what about the appeal process? Are there other penalties under parallel statutory regimes, and what about liability in the common law of torts?

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Meanwhile, the European Union responded to the *Deepwater Horizon* crisis by expanding its existing environmental damage liability law to include operational activities in its Member States' EEZs; specifically, Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, otherwise known as the Environmental Liability Directive ("ELD") as amended by Directive 2013/30/EU on safety of offshore oil and gas operations ("OSD").⁴ The ELD provides that operators of occupational activities will be liable for the costs of preventing and remediating damage to the environment, but only if that damage is significant and only if it is caused to one or more of three categories. The Directive does not allow any EU citizen or organization to claim compensation for any harm it has suffered, however, as it was believed that Member State law provided sufficient protection for business, personal and property damage claims. The OSD has adopted this system, but because it does not provide cover for the sorts of claims that business and property owners affected by an oil spill are most likely to make, the danger now is that such a disaster could cause expensive and unpredictable litigation, swamping national courts with a myriad of poorly founded claims. Not only that, but neither the ELD nor the OSD can be used to force Member States to require offshore petroleum operators to guarantee their environmental liability with mandatory insurance, and there is no EU environmental damage compensation fund to cover any unpaid compensation claims.

The comparison between New Zealand the EU's experiences with creating offshore pollution or environmental damage liability regimes for offshore oil spills, shows that the unexpected challenges that can arise when seeking to craft new liability regimes from pre-existing international legal frameworks. This thesis will use the comparison to make recommendations regarding how oil pollution damage should be interpreted in New Zealand law, and to ensure that offshore installation owners' liabilities are secured by appropriate minimum mandatory financial security requirements. The discussion will also explore the international community's

⁴ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56; Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66..

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unwillingness to apply international legal principles to offshore petroleum exploration and extraction activities. National economic interests have a tendency to trump concerns about environmental damage caused by such a lucrative industry, and that has deterred all efforts to create an international offshore petroleum industry oil pollution damage liability and fund convention.

1.2 Thesis Methodology

Different academic disciplines may approach the same topic from different directions using their own specific methodologies. For example, an economist's priority may be to maximise economic efficiency, and to design and model liability and compensation systems in order to deter only the most excessively environmental damaging activities. Marine biologists investigate the adverse effects that human activities have on coastal ecosystems, but may be more interested in diffuse and historic contamination that legal liability regimes struggle to address. Law can and should take a multi-disciplinary approach, drawing lessons from economic, science-based, and public policy methodologies in order to encourage efficiency, prevent environmental damage and incentivize positive social outcomes.

In terms of legal liability, however, a lawyer must prepare for the worst-case scenario and for the eventuality that policy objectives, economic incentives, the best practices and process safety designs have all failed to prevent a catastrophic oil well blowout from occurring. As the clean-up begins, as the marine environment absorbs the damage and as the financial consequences reverberate through the local and national economy, lawyers must ask who should be held liable, who can bring a claim and what damages they may claim for, and, most importantly, whether the responsible parties have the money to pay. The thesis therefore pays attention to lessons from other disciplines, but its objective is to illuminate the civil, administrative, and criminal penalties that the owners and operators of offshore petroleum installations will be exposed to in the aftermath of a major offshore oil disaster.

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To address what is a conventional question of legal analysis, the thesis will employ conventional legal methods. In the words of Hubert Bocken, these include:⁵

... grammatical or textual interpretation, historical interpretation on the basis of the *travaux préparatoires* as expression of the intent of the legislator; teleological interpretation in function of the objectives of the legislation; systematic or contextual interpretation in function of the characteristics and general principles of the legal order concerned; comparative interpretation in the light of solutions adopted in other legal systems.

As far as comparative methodology is concerned, this thesis takes Ernst Rabel's functionalist approach: "we compare the solutions produced by one state for a specific factual situation, and then we ask why they were produced and what success they had."⁶ The thesis seeks to place New Zealand's offshore liability regime in the international context because that is where the current marine pollution damage and resource management laws have come from in the past, it is where most of the models for success are to be found, and where most of the failures have been experienced, and because liability and compensation for damage caused by major offshore oil well accidents is a problem that cries out for an international solution.

1.3 Thesis Structure

The thesis will therefore begin by assessing New Zealand's recent efforts to enable offshore petroleum exploration and production activities in New Zealand's continental waters. It will explore New Zealand's historical oil pollution damage legislation, identifying the key stages in the development of the various statutory penalties and civil damages for marine pollution damage when it is caused by offshore petroleum installations and operations. This required an exploration of Parliamentary records, subcommittee reports, cabinet papers and ministerial policy documents. The thesis will look for key incidents that generated changes in the law, examining the resulting caselaw and the most influential or representative academic commentary.

⁵ Hubert Bocken "Financial Guarantees in the Environmental Liability Directive: Next Time Better" [2006] EELR 13 at 19.

⁶ Translated in Mathias M Siems *Comparative Law* (Cambridge University Press, Cambridge, United Kingdom, 2014) at 14.

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The next stage is to examine the incidents and legal concepts and institutions which contributed to the CLC and Fund Conventions, particularly those maritime disasters which raised issues of limited liability and the fault-based tort of negligence. The research drew liberally from the official records of conferences where those conventions were drafted and adopted.⁷ The Fund Convention is administered by the International Oil Pollution Compensation Fund, and the thesis made use of its decisions, records and policy documents, as well as examining other international shipping and pollution damage laws, and the various regional and international efforts to develop a stand-alone offshore petroleum liability and fund convention.

The research then pivots to European law, analysing the ELD and the OSD, examining the context provided by the EU's constitutional treaties, briefly reviewing earlier attempts to create industry specific pollution damage liability regimes, and the Green and White Papers that led the ELD to its current format as a public law environmental damage liability regime. It will seek to identify common features between the CLC and Fund Conventions and the European directives, which will allow us to make educated comments about how such environmental damage liability regimes can and should be designed. This will provide a context for the discussion of why previous international offshore petroleum industry liability and fund conventions have failed, and what the prospects are for future reforms.

The main body of the thesis is broadly separated into three parts. Part One (Chapters Two to Five) will examine New Zealand's offshore energy policy and the details of the offshore liability regime. Chapter Two will examine how a series of petroleum expert reports extolled the economic benefits to be had from attracting investment in offshore oil and gas exploration and extraction. It will review Maritime NZ's oil spill response strategy with particular reference to the lessons taken from both the

⁷ International Maritime Organization *Official Records of the International Legal Conference on Marine Pollution Damage, 1969* (International Maritime Organization, London, 1973); International Maritime Organization *Official Records of the Conference on the Establishment of an International Compensation Fund for Oil Pollution Damage, 1971* (International Maritime Organization, London, 1978); International Maritime Organization *Official Records of the International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea, 1984 and the International Conference on the Revision of the 1969 Civil Liability Convention and the 1971 Fund Convention, 1992* Volumes 1-4 (IMO, London, 1993)

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Rena and *Deepwater Horizon* disasters to explain why the government was confident that offshore oil disasters could be prevented and managed. Chapter Three will explore the development of New Zealand's historic marine pollution damage liability laws, including the Marine Pollution Act 1974 which first accepted and ratified the CLC and Fund Conventions, and concluding with a detailed statutory analysis of the MTA's offshore liability regime.

Chapter Four will consider regulatory offences and their criminal penalties under the MTA and other statutory regimes, including the penalties for the discharge of harmful substances under the MTA, and which have been transferred to the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 ("EEZ Act") since October 2015, and similar penalties under the Resource Management Act 1991. It will look at penalties for failing to provide a safe work environment under the Health and Safety at Work Act 2015, and those relating to failures to carry out mining activities according to good industry practice under the Crown Minerals Act 1991. It will also look at the relationship between public liability and the private law of joint operating agreements. Chapter Five will consider the implications of mandatory insurance, and will conclude with an examination of the Ministry of Transport's new offshore installation financial assurance regime.

Part Two (Chapters Six to Nine) will examine the legal and historical context behind maritime limitation of liability and the fault-based tort law that applied before the CLC and Fund Conventions were created. It will show how the *Torrey Canyon* prompted their establishment, and how activist national courts used hypothetical environmental damage per se claims to penalise shipowners, challenging the IOPC Fund's financial capabilities, and leading the IMO to attempt to restrict environmental damage claims with amendments that would create the new 1992 CLC and Fund Conventions. Chapter Nine will show how the IOPC Fund created the concept of the maritime transport chain to help distinguish "ships" from offshore craft or platforms, and it will consider how offshore craft are treated in international and in New Zealand law.

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Part Three (Chapters Ten to Twelve) will clarify the EU's constitutional powers to regulate Member State laws via directives and regulations. It will explain how the ELD came to be proposed, including a discussion of the Seveso and Waste Directives, and why it shifted from a broad civil liability regime, which would have captured a broad range of possible environmental, traditional, historic and diffuse kinds of damage, to a public law framework giving competent authorities standing to pursue polluters for the costs of preventing and remediating environmental damage. Chapter Eleven will provide a comprehensive description of the ELD, and consider the difficulties that Member States have faced in its implementation. Chapter Twelve will then explore the debates that preceded the OSD and consider the implications of expanding the ELD to include offshore oil and gas activities, without also harmonizing the rules around mandatory insurance or providing for an environmental damage compensation fund.

Chapter Thirteen will ask why it has been so difficult to establish an international offshore petroleum industry liability and fund convention, examining, amongst others, the example of the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources ("CLEE").⁸ The CLEE Convention did result in the formation of the Offshore Pollution Liability Agreement ("OPOL") and this could offer an alternative solution for other marine regions in the EU and around the world. The *Montara* wellhead platform explosion prompted a serious discussion about whether the International Maritime Organization should adapt the CLC and Fund Conventions to include oil pollution damage caused by offshore petroleum exploration and extraction activities, and the thesis will explore the implications raised by that debate.

Finally, the thesis will conclude with an overview and a consideration of how the CLC and Fund Conventions and the ELD and OSD can be used to improve and reform New Zealand's offshore liability regime.

⁸ Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977 16 ILM 1451 (opened for signature 1 May 1977, not in force).

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1.4 *Why the EU and not the US?*

A final point needs to be made about the overall direction that this thesis takes. Although the *Deepwater Horizon* motivated the choice of topic, United States' law is only occasionally mentioned. This is for a number of reasons. First, New Zealand's marine pollution damage laws are based on the CLC and Fund Conventions. It makes sense then that the meaning of those laws should be ascertained by exploring the origins and development of the CLC and Fund Conventions.

The United States of America may have played a significant role in developing the CLC and Fund Conventions, but it never acceded to them. The United States preferred to develop its own system of federal laws, and it is those laws which were applied to the *Deepwater Horizon* disaster. The Clean Water Act of 1972, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") or Superfund, and the Oil Pollution Act of 1990 ("OPA") which was created following the *Exxon Valdez* disaster, contain their own liability and compensation mechanisms.⁹ These differ markedly from the CLC and Fund Conventions, and it is those differences which contributed significantly to the huge expense of the *Deepwater Horizon*. For example, Clean Water Act oil spill fines are calculated according to the volume of oil that is released, and may be multiplied four-fold in cases of gross negligence.¹⁰ As this thesis will explain, the CLC and Fund Conventions have been designed to compensate state authorities and victims for the actual costs of preventing and remediating oil pollution damage. In developing these Conventions, it was thought that punitive damages would be counter-productive and would destroy the balance between the shipowners' strict liability, their mandatory insurance, and the oil industry compensation fund.

The United States law also differs significantly in recognizing types of damages which have no equivalent in New Zealand law. For example, the Oil Pollution Act also bases penalties on a system of Natural Resource Damages, and that can involve

⁹ Federal Water Pollution Control Act (Clean Water Act), Pub. L. No 114-38, 33 USC § § 1251-1377 (1972); Comprehensive Environmental Response Compensation and Liability Act, Pub. L. No 114-38, 42 USC § § 9601-9675 (1980); Oil Pollution Act, Pub. L. No 114-38, 33 USC § § 2701-2762 (1990).

¹⁰ Clean Water Act of 1972, § 311(b)(6) and (7), 33 U.S.C. §1321(b)(6) and (7) (2006).

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the use of Contingent Valuation Methodologies that survey people's willingness to pay to save an area or species, or willingness to accept its loss.¹¹ Such claims are again inconsistent with the pragmatic results-oriented approach of the CLC and Fund Conventions. New Zealand law does provide additional penalties for the unlawful discharge of harmful substances, but these are limited by statute, and the quantum of oil spill will only be one factor in sentencing. It follows that, even though the owners and operators of offshore installations face unlimited liability for oil pollution damage in New Zealand law, the various statutory regimes would not generate anywhere near the sum of penalties and damages that were generated by the United States law.

Finally, the United States Oil Pollution Act requires industry operators to contribute to a \$1bn USD Oil Spill Liability Trust Fund. Contributions are based on the quantity of oil produced, and these revenues may be used to pay compensation to business owners and individuals suffering losses and damage as a result of an offshore oil spill. This differs from New Zealand's oil pollution fund which is funded on a flat fee basis, is tiny in comparison, and can only be used to pay for the costs of maintaining and using New Zealand's store of oil dispersants, skimmers and booms.

While it would be interesting and possibly useful to explore the United States' offshore oil pollution liability laws in comparison to New Zealand's marine pollution damage liability regime, this thesis submits that the European Union's approach is just as interesting, and possibly more relevant. Why so? This thesis will argue that there are many similarities between New Zealand's adaptation of the CLC and Fund Conventions, and European lawmakers decision to expand its on environmental damage liability law to offshore petroleum activities. The EU Commission struggled for decades to create the ELD, but always assumed that oil pollution damage would be covered by the CLC and Fund Conventions. It was only in the aftermath of the *Deepwater Horizon* that the OSD was created to expand the ELD to include offshore petroleum activities. However, even though the early drafts of the ELD were inspired by the CLC and Fund Conventions, the ELD focussed on

¹¹ Oil Pollution Act of 1990 33 U.S.C. § 2702 – Elements of Liability.

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damage to the environment itself, excluding the traditional damages claims such as property damage or losses of profits that the CLC and Fund Conventions were designed to provide, and has left the question of mandatory insurance to the discretion of the Member State. The EU also has no plans to institute a complementary environmental damage compensation fund.

It appears then that New Zealand and the EU have taken similar paths in creating their marine pollution damage and environmental damage liability regimes. New Zealand adopted the CLC and Fund Conventions' definitions of preventive measures pollution damage and simply stated that the owners and operators of offshore petroleum installations and activities would be strictly liable for any costs that fit within those categories. However, it failed to consider whether those definitions would cover all the costs that could arise from an offshore oil well disaster, and as a consequence it initially did little to ensure that those owners and operators would provide sufficient financial security to cover those costs, and failed to create a complementary oil pollution damage compensation fund. The EU has similarly expanded the ELD to cover offshore petroleum activities, but it too failed to consider whether the ELD's definitions would cover all the claims that could arise from communities and businesses devastated by any potentially massive offshore oil spills, and it has failed to mandate minimum financial security requirements or a compensation fund. The result is that both New Zealand and the EU have taken measures which may provide a certain amount of security for the victims of an offshore oil well disaster, but the path to determining and implementing that liability is far from clear. Offshore petroleum operators will be subject to a hodgepodge of statutory and tortious liability laws, which vary widely between the Member States. This is less than ideal.

The paradox is that, despite the fact that the CLC and Fund Conventions were designed to address traditional damages claims, and the ELD was designed to provide compensation for damage to the environment itself and not to provide compensation to any individual, both regimes eventually resolved that any preventive and remediation measures must be reasonable, quantifiable and effective. Like the CLC and Fund Conventions, ELD damage claims cannot be used for punitive purposes, the sole concern is to oblige the responsible operator to return

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the environment as near to the baseline condition as possible. Like New Zealand, the EU has struggled with issues surrounding mandatory insurance regulations, and has been unwilling or unable to institute an environmental damage compensation fund. It is these commonalities which make the EU's law the more appropriate comparator, and it is in examining the process by which the EU came to apply its environmental damage regime to offshore petroleum activities that this thesis can find appropriate solutions to problems facing New Zealand lawmakers.

2 New Zealand's Offshore Energy Policy: Resource Exploitation and Oil Spill Contingency Planning

New Zealand's recent government policy has been to promote drilling for oil and gas and other seabed mining activities in the EEZ and continental shelf, extolling the economic gains from increases in oil industry jobs and revenues, while seeking to assuage public fears about the risk of a *Deepwater Horizon* sized blowout in New Zealand waters. At the same time as the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 ("EEZ Act") was being formulated, New Zealand suffered its worst-ever environmental disaster with the 2011 sinking of the *MV Rena*. Happening so soon after the 2010 *Deepwater Horizon* incident, and the 2010 Pike River coal mine explosion, the *Rena* response also prompted questions about New Zealand's offshore energy policy, oil spill contingency planning, and the adequacy of existing health and safety and environmental regulations.

This chapter will provide a brief background to New Zealand's history of offshore oil and gas exploration and extraction before showing how the government's petroleum expert reports served as the basis for the 2009 Petroleum Action Plan. It will then examine how New Zealand's National Oil Spill Contingency Plan was activated and tested by the *Rena* sinking. It will conclude with a discussion of two separate applications for judicial review of decisions permitting oil exploration activities in New Zealand's Exclusive Economic Zone ("EEZ").

2.1 *The Business Case for Offshore Petroleum Exploration and Production*

New Zealand's settler society built its early economic prosperity on abundant and mostly untapped natural resources. Whaling, sealing, forestry, gold and coal mining were among the extractive industries that played a significant role in establishing the infrastructure of the new colonial state. Oil exploration has a long history in New Zealand, with the first well excavated at Moturoa, on New Plymouth's

foreshore, in 1865.¹ Operations at the Moturoa field ceased in 1972, but the discovery of the large 350PJ Kapuni onshore gas-condensate field in 1959, and the even larger 4,000PJ Maui offshore gas-condensate field in 1969, guaranteed that the oil and gas industry would continue to operate profitably for the foreseeable future. More recently the Kupe, Cheal, Pohokurua, Maari and Tui projects have contributed \$2.9bn to the New Zealand economy, making oil and gas New Zealand's third largest export in 2008.²

2.1.1 The Petroleum Expert Reports

The growing importance in New Zealand of offshore oil and gas activities and proposed seabed-mining projects created a conundrum, as there was no single law regulating economic activities in the EEZ and continental shelf. The Crown Mineral Act 1991 ("CMA") and its regulations covered activities on the continental shelf, the Resource Management Act 1991 ("RMA") provided a resource consenting process that took account of environmental impacts, but only to the 12nm limit of New Zealand's territorial waters. Work towards the EEZ Bill began as early as 2007 when the Ministry for the Environment published a discussion paper seeking suggestions for new EEZ regulations. The discussion paper expressed an intention to encourage innovation and investment in "new types of minerals exploration, marine energy generation, deep-sea aquaculture, or carbon capture and sequestration."³ The paper's release was timed to coincide with the moment when New Zealand acquired sovereign rights over an EEZ, which, depending on the way it is measured, is either the fourth or the fifth largest in the world.⁴

The Ministry of Business Innovation and Employment ("MBIE") continued the momentum commissioning a number of "petroleum expert reports" to enable the

¹ Paul Fried, Frank Handy and Peter Seccombe *The Story of Maui* (Maui Development, Wellington, N.Z., 1979) at 13.

² Venture Taranaki Trust *The Wealth Beneath Our Feet: The Value of the Oil and Gas Industry to New Zealand and the Taranaki Region* (Venture Taranaki Trust, New Plymouth, N.Z., 2011) at 3.

³ Ministry for the Environment *Improving regulation of environmental effects in New Zealand's exclusive economic zone* (Ministry for the Environment, Wellington, NZ, 2007) at 4.

⁴ New Zealand Petroleum & Minerals *New Zealand Petroleum Basins* (Ministry for Business, Innovation and Employment 2013) at 5; Ministry for the Environment *Improving regulation of environmental effects in New Zealand's exclusive economic zone* (Ministry for the Environment, Wellington, NZ, 2007) at 1; See also Robert Makgill and Nicola de Wit "The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill 2011" [April 2012] *Resource Management Journal* 1.

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government to “gain a better understanding of New Zealand’s petroleum resources.”⁵ These include, but are not limited to, “East Coast Oil and Gas Development Study”, “East Coast Oil and Gas Development Study: Economic Potential of Oil and Gas Development”, (both of which focussed on hydraulic fracturing for onshore natural gas), and “Valuation of the Crown’s Royalty Streams from the Petroleum Estate” which estimated that the Crown’s expected that mid-value future returns from oil and gas royalties over the ten years from 30 June 2010, would be up to \$5.545bn NZD.⁶ MBIE and Venture Taranaki Trust added reports promising substantial increases in oil and gas royalties and taxes, with flow-on effects for the domestic economy, and the suggestion that New Zealand could make the transition from oil importer to oil exporter by 2030.⁷ All of the reports extolled the economic gains to be had from oil and gas exploration, but there was little mention of any risks of accidents causing environmental damage or loss of human life.

In 2009, the Ministry of Economic Development commissioned energy industry brokerage firm McDouall Stuart to outline options to maximise returns from New Zealand’s petroleum and mineral resources. The McDouall Stuart report described the oil and gas sector as a “quiet, but already big achiever.”⁸ For example, New Zealand’s most valuable single export cargo ever was shipped in July 2008, when the *MV Pacific Partner* sailed for Hawaii carrying \$114m worth of crude oil. Then there was the Tui oil field which had returned \$700m in revenue to the Crown in just two years. The same report also made optimistic revenue projections about the newly opened Pike River coal mine. It was a cruel irony that the Pike River mine management encouraged shoddy mining practices that went unchecked by an

⁵ Ministry of Business Innovation & Employment “Petroleum expert reports” (4 August 2015) <www.mbie.govt.nz> (accessed 10 December 2015).

⁶ Ministry of Business, Innovation & Employment *East Coast Oil and Gas Development Study* (Ministry of Business, Innovation and Employment, Wellington, N.Z., 2013); Chris Schilling *East Coast oil and gas development study: Economic potential of oil and gas development* (New Zealand Institute of Economic Research, Wellington, N.Z., 2012); Woodward Partners *Valuation of the Crown’s Royalty Streams from the Petroleum Estate* (Ministry of Economic Development, Wellington, N.Z., 2011) at 1.

⁷ Jason Leung-Wai *Regional Impacts of a New Oil or Gas Field: Report to the Ministry of Economic Development* (Business and Economic Research Ltd, 2012) at 21–22; James Zuccollo *Value of Oil and Gas Exploration: Hypothetical Scenarios* (NZ Institute of Economic Research Inc, 2012) at 1–4.

⁸ John Kidd, Michael Moore and Roger Paterson *Stepping Up: Options for Developing the Potential of New Zealand’s Oil, Gas and Minerals Sector* (McDouall Stuart, Wellington, NZ, 2009) at 1.

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underfunded inspection regime, and that it would shortly be destroyed by an explosion killing 29 men on 19th of November 2010.⁹ McDouall Stuart itself would later be fined \$83,000 for breaching the NZX's market rules and has since resigned from trading due to lack of capital, but its enthusiastic findings continued to reverberate in government circles.¹⁰

McDouall Stuart's basic logic was that if the Taranaki region had produced 2 billion barrels of oil equivalent ("BOE"), then New Zealand's total oil reserves could be calculated by multiplying the area yet to be explored.¹¹ Four hundred 'Tui fields' would amount to a \$1 trillion NZD reserve, equivalent to that of the United Kingdom or Norway. The only obstacle in the way of accessing those resources was "an inherited legacy of weak leadership and vision from government", the lack of "an integrated national strategy", and an irrational fear of climate change.¹² McDouall Stuart recommended that the government disregard opposition, remove the RMA and the Emissions Trading Scheme, and open up Crown land to foreign and domestic mining companies. The Resource Management (Simplifying and Streamlining) Amendment Bill 2009 was a positive step forward, as it would "address the issue of vexatious objectors, decrease local authority resource consent processing timeframes", and reduce local opposition to projects of national significance.¹³

Much of that local opposition would come from local iwi, and the reports neglected to mention New Zealand's controversial history with foreshore and seabed legislation. The Foreshore and Seabed Act 2004 had extinguished Maori claims to the foreshore and seabed until it was repealed and replaced by the Marine and Coastal Area (Takutai Moana) Act 2011. This restored Maori customary interests, while declaring that common marine and coastal areas were not owned by the Crown, or any other person, and were not capable of being owned. Maori retain the

⁹ See Royal Commission on the Pike River Coal Mine Tragedy *Royal Commission on the Pike River Coal Mine Tragedy: Volume One + Overview* (Wellington, N.Z., 2012).

¹⁰ Tamsyn Parker "Broker McDouall Stuart fined, censured for NZX breaches" *New Zealand Herald* (22 December 2010) <www.nzherald.co.nz>; Gareth Vaughan "McDouall Stuart was 'intensively supervised' by NZX" (15 April 2010) <www.interest.co.nz>.

¹¹ Kidd, Moore and Paterson *Stepping Up*, above n 8, at 2.

¹² At 2-3.

¹³ At 68.

right to be consulted, but cannot make Waitangi Tribunal claims for ownership of the seabed or the mineral resources contained therein, and cannot block any offshore activities.¹⁴

2.1.2 The Petroleum Action Plan

This was the context within which the Ministry of Economic Development released its "Petroleum Action Plan" in November of 2009.¹⁵ The plan paralleled McDouall Stuart's recommendations, with six workstreams separated into three Option Packages: minimal, moderate and significant stretch.¹⁶ Minimal stretch would involve improved leadership, fiscal incentives, freedom of information and agency support. Moderate stretch involved legislative reviews, and reform of permitting, research and new investment models with improved technical support. Significant stretch would involve substantial government participation including direct state investment and underwriting of private financial risks.

The Petroleum Action Plan's final workstreams involved 8 Actions:

Action 1: Communicating explicit Government support for development of petroleum resources;

Action 2: Coordinating investment in R&D to maximise strategic management and investment;

Action 3: Reviewing Crown's ability to manage the petroleum estate;

Action 4: Improving quality of petroleum reserve data from industry participants to the Government

Action 5: Reviewing regulations and fiscal incentives, in line with the Aupec Report, to ensure the Government receives a fair share of petroleum revenue;

Action 6: Reviewing Crown Minerals and existing permitting regimes;

Action 7: Exploring gas hydrates potential;

¹⁴ Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s 59(3)(c).

¹⁵ Ministry of Economic Development "Petroleum Action Plan" (18 November 2009) <www.med.govt.nz>.

¹⁶ Kidd, Moore and Paterson *Stepping Up*, above n 8, at 79.

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Action 8: Reviewing health and safety regulations and the RMA “to assess the adequacy of New Zealand’s regulatory environment for offshore petroleum operations.”

This would put the Petroleum Action Plan squarely within the Moderate Stretch option. In other words, the policy would be to encourage petroleum and minerals exploration to the greatest extent possible, without requiring the government to either directly invest in a National Oil Company, such as Brazil’s Petrobras or Norway’s Statoil, or to promise that it would reimburse exploration companies for sunk costs in dry wells.

The Petroleum Action Plan has since been quietly dropped from view and can no longer be found online, but it is mentioned in MBIE’s “New Zealand Energy Strategy 2011-2021”.¹⁷ This states that New Zealand’s energy policy is to pursue four priorities: diverse resource development; environmental responsibility; achieving efficient use of energy; and promoting energy security and affordability.”¹⁸ The Energy Strategy makes no mention of offshore petroleum operations, saying only that “New Zealand’s future competitiveness will ... require innovative solutions in the sources and uses of energy – both renewable and non-renewable.”¹⁹ The Energy Strategy confirms that the government’s role is to “provide incentives and information, and to help remove barriers to markets operating effectively.”²⁰

Between 2012 and 2013, the Ministry for the Environment released two further discussion documents considering the coming regulation of the EEZ, and a risk assessment of offshore activities by the National Institute of Water and Atmospheric Research (“NIWA”).²¹ These again lauded the economic benefits of

¹⁷ Ministry of Economic Development *New Zealand Energy Strategy 2011-2012: Developing Our Energy Potential* (Ministry of Economic Development, Wellington, NZ, 2011).

¹⁸ At 2.

¹⁹ At 3.

²⁰ At 4.

²¹ Ministry for the Environment *Managing our oceans: A discussion document on the regulations proposed under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill* (Ministry for the Environment, Wellington, N.Z., 2012); Ministry for the Environment *Activity classifications under the EEZ Act: A discussion document on the regulation of exploratory drilling, discharges of harmful substances and dumping of waste in the Exclusive Economic Zone and continental shelf* (Ministry for the Environment, Wellington, N.Z., 2013) at v; NIWA *Expert Risk*

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resource exploration and extraction in the EEZ but offered little discussion of the risk of oil pollution damage.²² For example, the NIWA report said that activities of “high environmental risk” included the use of surface flood lights, seismic surveying, ship strikes, and the displacement of the benthic ecosystem, but that there were “no activities associated with oil and gas extraction considered to represent an extreme environmental risk”.²³ NIWA explained its omission, saying that:²⁴

We have not assessed the environmental risks from oil spills in this report. Oil spill risk and response is managed under the Health and Safety in Employment Act 1992 and the Maritime Transport Act 1994. We have assessed the potential risk from other oil and gas activities that are not already covered by existing legislation.

A subsequent regulatory impact assessment lamented the time and administrative expense of dumping applications, with costs of between \$250,000 and \$1.5m NZD for a publicly notified application.²⁵ Non-notified discretionary marine consent applications would cost between \$100,000 and \$450,000 NZD, depending upon their complexity, and would take 60 working days to process as opposed to 140 working days for a fully notified marine consent.²⁶ Applicants would cover these costs, but a longer and more expensive process could deter some operators from undertaking activities in New Zealand. The public would be prevented from submitting their opposition or appealing against non-notified discretionary consents.²⁷ Any party would still be entitled to seek judicial review of marine consents, however.

The government increased the penalties for interfering with an offshore structure or operation, or even entering a permitted prospecting, exploration or mining ‘non-

Assessment of Activities in the New Zealand Exclusive Economic Zone and Extended Continental Shelf (National Institute of Water & Atmospheric Research Ltd, Wellington, N.Z., 2012).

²² Ministry for the Environment, *Activity classifications under the EEZ Act*, at 15.

²³ NIWA, *Expert Risk Assessment of Activities in the New Zealand Exclusive Economic Zone and Extended Continental Shelf*, at 31–32.

²⁴ At 10.

²⁵ Ministry for the Environment *Regulatory Impact Statement: Proposal for Marine Legislation Bill Supplementary Order Paper to Introduce a non-notified discretionary classification to the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012* (Wellington, 2013) at 6.

²⁶ At 9.

²⁷ At 9.

interference zone'.²⁸ Individuals could now be imprisoned for up to 12 months and fined up to \$50,000, and body corporates, like Greenpeace, could be fined up to \$100,000. A new EEZ Act regulation categorised exploratory drilling as non-notified discretionary so that the public would no longer be notified or have the opportunity to submit on or appeal against any drilling activities.²⁹ Along with the foreshore and seabed legislation, the net effect of these laws appeared to be to neutralise the local communities most vocal in their opposition to offshore petroleum exploration and production activities. Afterwards, the Parliamentary Commissioner for the Environment, Jan Wright, expressed her disappointment that the public's concerns were not to be considered, but said that this was consistent with a trend towards centralisation of the resource management decision-making.³⁰

2.2 *Judicial Review of Petrobras' and Anadarko's Marine Consent Applications*

The EEZ Act's new permitting procedures would be brought under close scrutiny when Greenpeace filed two suits for judicial review. In the first case, brought before the EEZ Act came into force, Greenpeace joined with local hapu, Te Runanga o Te Whanau-A-Apanui, in challenging the Energy Minister's decision to permit Petrobras' application to drill in the Raukumara Basin. The second came under the EEZ Act's transitional provisions in November of 2013, when Anadarko NZ Taranaki Company submitted an environmental impact assessment in support of its application to undertake an exploratory drilling programme off the west coast of the North Island.³¹

Professor Kenneth Palmer has explained that the Petrobras case highlighted the lacuna in environmental regulation in the EEZ.³² The RMA may have provided for

²⁸ Crown Minerals Act 1991, s 101B.

²⁹ Exclusive Economic Zone and Continental Shelf (Environmental Effects - Non-notified Activities) Regulations 2014/43.

³⁰ Ruth Laugesen "Oil and Gas Exploration: New Zealand's Future; Will the deep-sea oil and gas exploration boom herald an economic bonanza or an environmental disaster" (28 November 2013) The Listener <www.listener.co.nz> (accessed 28 July 2016).

³¹ *Greenpeace of New Zealand Inc v Minister of Energy and Resources* [2012] NZHC 1422; *Greenpeace of New Zealand Inc v Environmental Protection Authority* [2013] NZHC 3482.

³² Kenneth Palmer "Environmental Management of Oil and Gas Activities in the Exclusive Economic Zone and Continental Shelf of New Zealand" (2013) 31 JERL 123 at 131.

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comprehensive environmental impact assessment on land and in the 12 nautical mile (nm) coastal marine area, but the legal framework in the EEZ was far less developed and mining activities depended almost solely upon the Minister of Energy's discretion. The case points out that the regulatory and allocation functions were deliberately separated between the RMA and the CMA in order to avoid that very conflict of interest.³³ Indeed, the Minister's affidavit stated that he "did not consider matters relating to the protection of the marine environment, as they were not matters for me to consider, as Minister of Energy and Resources exercising a power under the Act."³⁴ The Minister was therefore correct in disregarding New Zealand's international obligations concerning environmental matters when administering the CMA, and was not required to demand that Petrobras provide any environmental impact assessment for activities in the EEZ.³⁵

In the second instance, Anadarko planned to use a drillship to drill a single exploration well approximately 115 km northwest of New Plymouth. Ignoring the thousands of protesters lining west coast beaches that weekend, and a flotilla of protest boats flouting the 500m non-interference zone, the drillship *Noble Bob Douglas* began drilling in the early hours of the 26th of November 2013.³⁶ Anadarko had held a 25% interest in the *Deepwater Horizon*, and, by operating in waters 1520m deep, drilling operations would be carried out at almost the same depth as the Macondo well.³⁷ That same day, Greenpeace sought a judicial review of Anadarko's marine consent, asserting that the EPA had not properly assessed oil spill modelling reports and contingency plans, and had therefore committed a reviewable error of law.³⁸

³³ *Greenpeace of New Zealand Inc v Minister of Energy and Resources* [2012] NZHC 1422 at [101].

³⁴ At [75].

³⁵ At [116]-[117].

³⁶ Brendan Manning "Anadarko starts drilling in the early morning" *NZ Herald* (26 November 2013) <www.nzherald.co.nz> (accessed 28 January, 2016).

³⁷ National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling *Macondo: The Gulf Oil Disaster: Chief Counsel's Report - 2011* (National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, 2011) at 25, the *Deepwater Horizon* was drilled 48 miles from shore in 4992 feet of water, or approximately 1521m.

³⁸ *Greenpeace of New Zealand Inc v Environmental Protection Authority*, [2013] NZHC 3482; Simon Wong "Greenpeace: EPA made 'fundamental error' with Anadarko oil permit" *3news.co.nz* (9 December 2013) <www.3news.co.nz> (accessed 28 January, 2016).

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The EEZ Act had yet to come into force, but its transitional provisions allowed a planned permitted activity to begin without a marine consent on the condition that the person undertaking that activity prepared an environmental impact assessment (“EIA”) for the EPA.³⁹ Anadarko was also required to provide Maritime NZ with an oil spill trajectory model study as part of the Discharge Management Plan.⁴⁰ The model predicted that there was only a medium (1-3%) chance of oil beaching along the Waikato coastline.⁴¹ However, the EIA predicted that deaths would occur amongst birds, marine mammals, sea turtles, fish and plants and that fishing operations would have to cease to avoid catching contaminated fish and ruining nets, and tourism would also be adversely affected.⁴² It conceded that:⁴³

.... significant impacts could possibly result should a loss of well control occur, Such impacts have been shown in such examples globally as being long-term and widespread, impacting various sensitive species. Accordingly the severity of such impacts is considered to be *high*.

Anadarko promised to that its well trained staff could deal with any oil spill contingency, its Blow Out Preventer would be well maintained, and, as its spill response contractors planned for extreme weather, the likelihood of such an accident was “*extremely unlikely*”.⁴⁴ Anadarko characterised the risk as falling within the category of ALARP, an acronym meaning “As Low as Reasonably Practicable ... the point at which the cost and effort (time and trouble of further risk reduction is grossly disproportionate to the risk reduction achieved.”⁴⁵

The Greenpeace suit averred that the EIA was incomplete because it failed to provide annexes detailing trajectory information for the spill on the seaward side of the EEZ zone.⁴⁶ The EPA erred in accepting an EIA that neglected to specify all elements of the emergency spill response.⁴⁷ However, the Court said that:⁴⁸

³⁹ Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, s 166.

⁴⁰ Environmental Resources Management *Deepwater Taranaki Basin Single Exploration Well Environmental Impact Assessment* (Anadarko NZ Taranaki Company, 0124819R01, 2013) at 117.

⁴¹ At 117–118; Table 6.2 “Oil Spill Trajectory Modeling (Summer)”.

⁴² At 121.

⁴³ At 122.

⁴⁴ At 122; See also Table 7.1 at 129.

⁴⁵ At 78.

⁴⁶ Wong “Greenpeace: EPA made ‘fundamental error’ with Anadarko oil permit”, above n 38.

⁴⁷ *Greenpeace of New Zealand Inc v Environmental Protection Authority* [2013] NZHC 3482 at [22].

⁴⁸ At [33].

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A decision which is 'wholly administrative in nature' and 'essentially mechanical' is not readily susceptible to the sort of error which may justify judicial review. To succeed on the present application, Greenpeace must demonstrate an error of law by EPA.

The Court was not prepared to substitute its decision on the merits of the application and Greenpeace's challenge was dismissed.

The plan also caused a stir in Parliament, after Labour Leader David Cunliffe claimed that the government had withheld a study based on the *Deepwater Horizon* experience which "undermined the National-led Government's assurance that deep sea oil exploration off New Zealand's coast was low-risk."⁴⁹ The study, commissioned by the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling, showed that there was a 10% chance of an accident occurring at operations in 500 feet of water, but this risk increased to 70% at 5,000 feet.⁵⁰ Environment Minister Amy Adams replied that, while risks increased with depth, the term "reported incident" included property damage, worker injuries and days shut down.⁵¹ It did not necessarily refer to spills, which, she said, averaged out at 2.54 per 1,000 wells, and were mostly small and easily contained.

However, Mr Cunliffe used the Official Secrets Act 1982 to obtain a Ministry for the Environment ministerial briefing note advising the Minister that the potential effects of an oil spill were likely to be serious and these applications required further consideration.⁵² The briefing note explained that the EEZ Act's section 6(1)(f) defines "effect" as "any potential effect of low probability that has a high potential impact."⁵³ If an oil spill did occur, "it is highly likely to have a catastrophic impact on New Zealand's coastline and huge economic consequences, regardless of other marine management regimes in place."⁵⁴ Even though there are few wells in New

⁴⁹ Isaac Davison "Advice on oil-drilling risks misleading, says minister" *NZ Herald* (22 November, 2013) <www.nzherald.co.nz> (accessed 26 January, 2015).

⁵⁰ Mark Cohen "Deepwater Drilling: Recommendations for a Safer Future" (20 April, 2011) Resources for the Future <www.rff.org>; Lucija Muehlenbachs, Mark Cohen and Todd Gerarden "Preliminary Empirical Assessment of Offshore Production Platforms in the Gulf of Mexico" [2011] RFF DP 10-66.

⁵¹ (19 November 2013) 695 NZPD 15071 at 15071–15072.

⁵² Ministry for the Environment Ministerial briefing note "EEZ Act regulations - classifying exploratory drilling" (12 October 2012) MfE tracking number: 12-B-01274 (Obtained under Official Information Act 1982 Request to Hon Amy Adams, Minister for the Environment) at 2.

⁵³ At 2.

⁵⁴ At 3.

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Zealand waters, risk analysis would have to factor in water depth, the pressure characteristics of the field, the development phase of the well (both *Montara* and *Deepwater Horizon* blew out while transitioning from the exploratory to production phase), and the type of equipment being used.⁵⁵ The worst-case discharge rate could be anywhere between 100,000 and 350,000 barrels per day, and containment would depend in part on the “proximity and availability of vessels, rigs and equipment with the capability to undertake capping or relief well drilling.”⁵⁶ Much of this information was withheld from the initial OIA request on the grounds that it was out of scope, and it took a further request by Mr Cunliffe for the full report to be released.⁵⁷

The point to take away from the two cases challenging Petrobras’ and Anadarko’s offshore activities is that, in spite of credible information detailing the risks of a New Zealand *Deepwater Horizon*, is that neither the courts nor the Minister were prepared to thoroughly question these operators drilling plans. The permitting procedures had been conducted according to the law of the time, and the expectation was that these experienced operators would carry out their seismic surveying and exploratory drilling safely and without incident. As it happened, neither organization’s efforts resulted in a successful find, and subsequently, international interest in New Zealand as a hydrocarbon destination would gradually subside, if never disappearing altogether.

2.3 New Zealand’s Marine Oil Spill Preparedness and Response

Numerous reports had presented a rose-tinted economic case for offshore petroleum exploration and production activities, and considering that New Zealand’s petroleum industry had never experienced a serious blowout in its long history, there was reason to be confident in the future. However, block tenders were now being offered in waters even deeper than those which claimed the *Deepwater Horizon*, the question has to be asked, why were government policy makers so

⁵⁵ At 20.

⁵⁶ At 21.

⁵⁷ Appendix 3.

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confident that the risks of a catastrophic loss of well control incident were either negligible or manageable? To understand that aspect, it is necessary to look at how New Zealand's oil spill contingency planning is intended to work, how the system was tested to its limits by the 2011 *Rena* disaster.

2.3.1 Maritime NZ and New Zealand's Oil Spill Response Strategy

While the Ministry of Transport is responsible for regulating and developing policy for all transport in New Zealand, including shipping, Maritime New Zealand ("Maritime NZ") is the crown entity tasked with protecting the marine environment, and managing New Zealand's National Marine Oil Spill Contingency Plan.⁵⁸ Maritime NZ's Marine Pollution Response Services ("MPRS") maintains New Zealand's stores of oil booms and dispersants and provides contingency planning and response training. It has trained up to 400 responders and convenes the Maritime Incident Response Team ("MIRT") whenever there is the potential risk of an oil spill at sea.⁵⁹ The National On-Scene Commander ("NOSC") makes the critical decisions about what response is to be taken, and the MIRT will provide independent strategic oversight, advice and support and will deal with political matters such as briefing Government ministers and the press. In addition, Maritime NZ is tasked with promoting maritime safety, investigating accidents, and ensuring that owners of marine structures have mandatory insurance, amongst other things.⁶⁰

Maritime New Zealand says its responsibility is to maintain "successful relationships and partnerships between Maritime NZ, regional councils and unitary authorities, government partners industry and domestic and overseas agencies", to protect "human safety, health and welfare, and to ensure that decisions about "response options and clean-up standards" will be underpinned by Net Environmental Benefit Analysis ("NEBA").⁶¹ Maritime NZ could also call upon

⁵⁸ See Maritime Transport Act 1994, Part 23, "Plans and responses to protect marine environment from marine oil spills." Maritime New Zealand *National Marine Oil Spill Contingency Plan* (Maritime New Zealand, March 2017);

⁵⁹ Maritime New Zealand *Deepwater Horizon: Lessons for New Zealand* (Maritime New Zealand, June 2011) at 9-10.

⁶⁰ Maritime Transport Act 1994, s 431.

⁶¹ Maritime New Zealand *An Introduction to Marine Pollution Response: For Marine Oil Spill Response Support Roles* (Maritime New Zealand) <www.maritimenz.govt.nz> (accessed 27 January 2016) at 8; NEBA is a system for measuring the costs and benefits of various oil spill response options which has recently found favour with the IOPC Fund, see International Petroleum

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Massey University's National Oiled Wildlife Response Team, New Zealand's Defence Force and Police, private trucking companies and Fulton Hogan, and, in a major publicised incident, would expect to manage a massive cohort of public volunteers.⁶²

There are three to four levels of oil spill contingency planning. The operator of the ship or facility must deal with small Tier 1 spills, mid-sized Tier 2 spills are the responsibility of the regional council, and larger Tier 3 spills require a national response.⁶³ The International Convention on Oil Pollution Preparedness, Response and Cooperation ("OPRC") provides a fourth tier in that signatories must maintain oil spill response equipment and planning, and can request assistance from overseas states.⁶⁴ As well as that, New Zealand has a bilateral aid agreement with the Australian Maritime Safety Authority.⁶⁵ It also maintains relationships with the international not-for-profit industry-funded organization, Oil Spill Response ("OSR"), which is based in Singapore and played a significant role in the *Deepwater Horizon* response effort.⁶⁶ New Zealand is also a party to the Noumea Convention, which requires its signatories to cooperate in combating pollution in emergencies, and that may involve developing individual and joint contingency plans to deal with polluting incidents.⁶⁷ However, the majority of the parties to that Convention are isolated island nations, and only Australia and New Zealand are likely to maintain significant stocks of oil spill response materiel.⁶⁸

If the spill is Tier 2 or above, or if the response costs exceed \$250,000 NZD, then either the Regional or National On-Scene Commander is notified, and he or she will decide on the appropriate measures to prevent further pollution and to contain and

Industry Environmental Conservation Association *Choosing Spill Response Options to Minimize Damage: Net Environmental Benefit Analysis* (IPIECA, 2000) at 4.

⁶² At 20 and 30-31.

⁶³ Maritime Transport Act 1994, s 286.

⁶⁴ International Convention on Oil Pollution Preparedness, Response and Co-operation ("OPRC Convention") 1891 UNTS 78 (opened for signature 30 November 1990, entered into force 13 May 1995), Art 1(1).

⁶⁵ Maritime New Zealand *New Zealand Marine Oil Spill Response Strategy 2015-2019* (Maritime New Zealand, Wellington, N.Z., 2014) at 38.

⁶⁶ Maritime NZ, *Deepwater Horizon: Lessons for New Zealand*, above n 59, at 7.

⁶⁷ Convention for the Protection of the Natural Resources of the South Pacific Region (Noumea Convention) (opened for signature 24 November 1986, entered into force 22 August 1980), art. 15.

⁶⁸ See Article 2 for a full list of parties to the Noumea Convention.

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clean up the oil spill.⁶⁹ Any spill in the EEZ automatically becomes a Tier 3 emergency. On-Scene Commanders have wide-ranging powers and may:⁷⁰

- (a) Direct the master or owner of the ship or offshore installation to “do anything, or refrain from doing anything that the on-scene commander considers necessary or desirable to control or clean up the marine oil spill”;
- (b) Remove any person obstructing the response from the area;
- (c) Evacuate people, vehicles and ships;
- (d) Completely or partially restrict public access;
- (e) Remove or forcibly enter any vehicle or ship impeding access;
- (f) Inspect any ship, vehicle or thing; and
- (g) Requisition any “land, building, vehicle, New Zealand ship, or any other real or personal property to place that property under his or her control and direction.”

Owners of requisitioned property that is lost or damaged must be compensated from the New Zealand Oil Pollution Fund or by the Crown.⁷¹ Likewise, a person who carries out any oil spill response and suffers loss or damage to his or her personal property is entitled to compensation for the value of the lost property, or the reduction in value if it is only damaged.⁷² Otherwise, the Crown, Maritime NZ and the regional councils, their employees and on-scene commanders enjoy immunity from claims for damages to property due to any marine oil response, so long as they are exercising their functions, duties or powers in good faith.⁷³

2.3.2 Reviews of the Oil Spill Response Strategy

New Zealand's petroleum expert reports give little regard towards the risks of offshore oil well blowouts, yet it took the combined technological and logistical might of BP, Transocean, Halliburton and the United States federal and state governments 87 days to stop the *Deepwater Horizon* blowout.⁷⁴ The *Montara* accident occurred in waters only 77m deep, and that took more than 10 weeks to

⁶⁹ Maritime Transport Act 1994, ss 300–303.

⁷⁰ Maritime Transport Act, s 305.

⁷¹ Section 307.

⁷² Section 308.

⁷³ Section 327.

⁷⁴ See *In re: Oil Spill by the Oil Rig “Deepwater Horizon” in the Gulf of Mexico, on April 20 2010* MDL 2179 (ED Lou 2014) <www.laed.uscourts.gov> (accessed 3 July 2015).

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cap.⁷⁵ New Zealand's geographical isolation means that it will take much longer to find and deploy well control equipment or a second MODU, and months more if a second relief well has to be drilled. For example, Shell Oil has said that that it would take at least 14 days just to bring a capping stack to New Zealand.⁷⁶ It is not clear how well that technology will work, considering that the United States' Bureau of Safety and Environmental Enforcement observed that Shell's oil spill containment dome was "crushed like a beer can" the first time it was deployed in sea trials.⁷⁷

It is also not possible to predict whether a New Zealand field might replicate the high-pressure, high-temperature characteristics of the *Deepwater Horizon's* Macondo field.⁷⁸ However, New Zealand Petroleum and Minerals is offering blocks for offshore oil and gas exploration activities in the shallow waters near the coastline in depths of 1,750m off Cape Reinga, and at 2,400m in the Raukumara Block.⁷⁹ New Zealand's difficult prevailing weather conditions could also complicate matters. Dayne Maxwell, Response Planning Officer at Maritime NZ, was quoted in Parliament saying that: "Most of the response equipment that we have is designed for near-shore sheltered conditions, and really there isn't available internationally any equipment designed to operate in the rough kind of conditions offshore that we have in New Zealand."⁸⁰

Perhaps in response to the *Montara* accident, in September 2009, Maritime NZ approved a three-stage review of the Marine Oil Spill Response Strategy, beginning with the Marine Oil Pollution Risk Assessment project ("MOSRA10").⁸¹ MOSRA10 was updated to MOSRA15 in 2015, and anyone may visit the Maritime

⁷⁵ Montara Commission of Inquiry *Report of the Montara Commission of Inquiry* (Commonwealth of Australia, 2010) at 5 and 49.

⁷⁶ Jamie Gray "Capping a major oil leak off NZ coast could take 14 days - Shell" *NZ Herald* (30 April 2013) <www.nzherald.co.nz>.

⁷⁷ Greenpeace International "Shell's Arctic Drill Rig Runs Aground" *Scoop World* (6 January 2013) <www.scoop.co.nz>; John Ryan "Sea Trial Leaves Shell's Arctic Oil-Spill Gear 'Crushed Like a Beer Can'" *KUOW* (30 November 2012) <www.kuow.org> (accessed 10 June 2017).

⁷⁸ Anthony Christie and Richard Barker "Mineral, Coal and Petroleum Resources: Production, Exploration and Potential" in J Dymond (ed) *Ecosystem Services in New Zealand - Conditions and Trends* (Manaaki Whenua Press, Lincoln, NZ, 2013) at 306.

⁷⁹ New Zealand Petroleum & Minerals "Block Offer 2017" (22 March 2017) <www.nzpam.govt.nz> (accessed 10 June 2017)

⁸⁰ (24 October 2012) 685 NZPD 6116.

⁸¹ Maritime NZ "The Good Oil" (September 2010) <www.mnz.govt.nz>.

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NZ website and view its modelling of New Zealand's coast.⁸² The model breaks the coastline into 20km coastal 'cells', and each cell's risk level is assessed according to "current vessel activity and associated movement of oil."⁸³ MOSRA15 could be used in conjunction with the NEBA system to decide how to allocate emergency response measures, with the most effort going to save the most precious and sensitive areas. MOSRA10 predicted "a general lowering – over a 10 year period – of the probability of a given quantity of oil being spilled and arriving at the New Zealand coastline."⁸⁴ Despite the public's concerns following the *Rena*, the latest MOSRA15 report determined that the risk levels from shipping and offshore activities have remained basically unchanged since that 2010 review.⁸⁵

Thompson Clarke Shipping also conducted a "Review of New Zealand's Oil Pollution Preparedness and Response Capability" ("TCS Review") in 2011.⁸⁶ The TCS Review concluded that, while it could not identify "any significant gaps in the present response system that could lead to a response not being mounted", there were a number of issues which could be detrimental to an effective response. These included:⁸⁷

1. A shortage of skills at Maritime NZ;
2. Concerns about communication from the Oil Pollution Advisory Committee;
3. Confusion between several Government Ministries and their Departments roles under the 2006 Strategy;
4. No strategy for dealing with wāhi tapu;
5. No coordination with the Royal New Zealand Navy; and
6. Diminishing Oil Pollution Fund reserves.

⁸²See Maritime NZ's "Interactive Map" <www.maritimenz.govt.nz/Environmental/Marine-oil-spill-risk-assessment/Interactive-map.asp>.

⁸³ Navigatus Consulting Ltd *Determination of Sector Oil Risk Contribution* (Maritime New Zealand, Wellington, NZ, 2012) at 5; Navigatus Consulting Ltd *Marine Oil Spill Risk Assessment 2015* (Maritime New Zealand, Wellington, NZ, 2015) <maritimenz.govt.nz> (accessed 4 January 2015).

⁸⁴ Navigatus Consulting Ltd *Determination of Sector Oil Risk Contribution*, at 9.

⁸⁵ Navigatus Consulting Ltd *Marine Oil Spill Risk Assessment 2015*, at 2.

⁸⁶ Thompson Clarke Shipping Pty Ltd *Review of New Zealand's Oil Pollution Preparedness and Response Capability* (Maritime NZ, February, 2011).

⁸⁷ At 3.

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Maritime NZ maintains capacity for a 1-in-100 years spill event of 3,500 tonnes.⁸⁸ The TCS Review recommended increasing that capacity to cope with a 5,500 ton event, such as if a 100,000 tonnes tanker suffered damage to one wing. The review does not explain why it assumes that a tanker might only suffer partial damage, and not the complete loss of the vessel, but the report did acknowledge that New Zealand’s “unpredictable” coastal waters would make coping with offshore oil spills “extremely difficult.”⁸⁹

The report further acknowledged that New Zealand has had some experience with offshore oil spills, with OMV New Zealand reporting two small spills from its FPSO *Raroa* in October and November of 2010.⁹⁰ As for the “Lessons learned from *Deepwater Horizon* and *Montara*”, the TCS Review accepted that the incidents “demonstrated patterns of industry complacency and failure to adhere to Standard Operating Procedures.”⁹¹ New Zealand was also similar to the United States and Australia in that its offshore oil and gas industry was also overseen by several Government agencies with overlapping responsibilities, and the possibility existed for “similar oversight breakdown”.⁹² The solution was to accept the 11 recommendations from Maritime NZ’s “*Deepwater Horizon* Discussion Paper”.⁹³ Amongst other things, these argued that:⁹⁴

- Command structures aim to deal with spills that crossed regional boundaries or were of national significance and not assume that Coordinated Incident Management Structures (“CIMS”) can be scaled up, or that the National Contingency Plan is already sufficiently detailed;
- Electronic incident response systems must have the capacity to deal with the data generated by the largest spill;
- Maritime NZ should build “strategic relationships with a number of logistics companies and military logistics specialists and exercise this aspect of responding”;

⁸⁸ At 4.

⁸⁹ At 6.

⁹⁰ At 66.

⁹¹ At 66.

⁹² At 67.

⁹³ Maritime New Zealand *Deepwater Horizon: Lessons for New Zealand* (Maritime New Zealand, 2011); Cited in Thompson Clarke Shipping Pty Ltd *Review of New Zealand’s Oil Pollution Preparedness and Response Capability* (Maritime New Zealand, 2011) at 39.

⁹⁴ Thompson Clarke Shipping Pty Ltd, at 68.

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- MNS should involve itself in other international oil spill events and funding should be allocated for that purpose.

Nowhere was it argued that New Zealand should itself maintain a capacity to deal with multi-million barrel spills, or have the financial resources to do so, rather Maritime NZ concluded that its system was “scalable’ and robust.”⁹⁵ A 2010 MPRS audit report had considered whether a Tier 3 response might exceed Maritime NZ’s capabilities, but that this was not a problem because New Zealand could always obtain international assistance.⁹⁶ Bruce Anderson, General Manager of Monitoring and Response at Maritime NZ, had travelled to the Gulf of Mexico to aid in the *Deepwater Horizon* response. He reiterated the point that “New Zealand has relationships and agreements in place to quickly call on international assistance in the event of a major disaster, which puts the country in a position to respond effectively in any situation.”⁹⁷ The Australian National Plan for Maritime Environmental Emergencies appears to be heavily dependent upon operators’ mutual aid agreements, and the Australian Marine Oil Spill Centre may not be any better equipped than Maritime NZ.⁹⁸

The “New Zealand Marine Oil Spill Response Strategy 2015-2019” explains that New Zealand’s strategies will mirror BP’s *Deepwater Horizon* “cone of response model.”⁹⁹ The response begins with the point of the cone at the source, then expands out as the oil reaches the surface, then outwards over the immediate source area, then to the near shore, and finally to where its widest arc impacts with the coastline. The government takes responsibility for treating any surface oil, and will use dispersants, containment and recovery with booms and skimmers, with in-situ burning where possible, and by manual and mechanical clean-up on the shoreline. The government will also take responsibility for cleaning up oiled wildlife, but it is

⁹⁵ Simon Murdoch *Independent Review of Maritime New Zealand’s Response to the MV Rena Incident on 5 October 2011* (Maritime New Zealand, 2013) at 44.

⁹⁶ Maritime NZ *Marine Pollution Response Service: Audit Report* (Maritime NZ, Wellington, N.Z., 2010), cited in Murdoch, *Independent Review 2011*, at 44.

⁹⁷ Maritime New Zealand “Valuable Lessons for New Zealand from Gulf Spill” *Safe Seas, Clean Seas* (Wellington, NZ, 1 December 2010) <www.maritimenz.govt.nz> (accessed 4 July 2017), at 9.

⁹⁸ Australian Maritime Safety Authority *National Plan for Maritime Environmental Emergencies* (Australian Maritime Safety Authority 2016) <www.amsa.gov.au> (accessed 4 July 2017).

⁹⁹ Maritime New Zealand *New Zealand Marine Oil Spill Response Strategy 2015 -2019* (Maritime New Zealand, 2014) at 49.

also likely that local community groups will be actively involved. Meanwhile, the operator will be responsible for the sub-surface response and must provide detailed plans for all “well interventions including activating blowout preventers, introduction of subsea dispersant injection and well control either through capping systems or relief well drilling are the responsibility of industry.”¹⁰⁰ The discussion of issues of liability and compensation was again conspicuous by its absence.

2.3.3 New Zealand’s Oil Pollution Fund

New Zealand does have an oil spill contingency fund known as the New Zealand Oil Pollution Fund (“NZOPF”) which is governed by the MTA and by the Maritime Transport (Oil Pollution Levies) Order 2013. The NZOPF is used to meet the costs of the Oil Pollution Advisory Committee, Maritime NZ, and the various regional councils in planning for and responding to oil spills, and to compensate for private property that may be requisitioned or damaged because of the response.¹⁰¹ It is also used to “purchase plant, equipment, or any other thing to make preparations for, or to implement, or assist in implementing, any response to marine oil spills.”¹⁰² However, it only provides funding for a few million dollars each year and its funds cannot be used to pay compensation for pollution damage claims.

The NZOPF might usefully be compared with the United States’ Oil Spill Liability Trust Fund (“OSLTF”) instituted under the 1990 Oil Pollution Act. OSLTF imposes levies of 8 US cents per barrel of crude oil received or petroleum products entered for consumption, use or warehousing.¹⁰³ The United States’ offshore petroleum industry is vast in comparison to New Zealand’s, and the OSLTF is able to allocate up to \$1bn USD per incident towards the costs of oil removal and environmental damages, costs related to the Intervention on the High Seas Act, penalties imposed under the Federal Water Pollution Control Act, for the Deepwater Port Liability Fund, and for the payment of liabilities under the Offshore Oil Pollution Compensation Fund.¹⁰⁴ More specifically, section 1012 of the OPA states that the fund provides for the payment of removal costs and “for assessing natural resource

¹⁰⁰ At 48.

¹⁰¹ Maritime Transport Act, ss 330–332.

¹⁰² Section 331(b).

¹⁰³ 26 USC § 4611 - Imposition of taxes.

¹⁰⁴ 26 USC § 9509 - Oil Spill Liability Trust Fund.

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damages and for developing and implementing plans for the restoration, rehabilitation, replacement or acquisition of the equivalent of damaged resources". In addition, the Code of Federal Regulations provides for mandatory insurance, in that each person who owns or operates a facility used for drilling, producing, processing or storing more than one thousand barrels of oil must submit evidence of financial responsibility of \$35m USD.¹⁰⁵

The NZOPF is also funded by owners and masters of ships, Floating Production, Storage and Offloading installations ("FPSOs") and oil sites, but instead of calculating levies on the volume of oil produced, New Zealand levies are based on a flat annual rate.¹⁰⁶ The NZOPF only gathered \$3.1m in funds per year, and, since it was completely spent in pay for the *Rena* response, the Maritime Transport (Oil Pollution Levies) Order 2013 was passed to increase annual revenues to \$4.5m NZD.¹⁰⁷ Each Oil Site must pay a base levy, a capability levy and a capital expenditure levy. For FPSOs, the base levy is \$85,186 per annum, and for other offshore installations, it is \$8,888.89 per annum. If we assume that a major accident will occur once every 35 years, then at these rates, the operator of each offshore installation would only have contributed a little over \$311,000 NZD in that time. The NZOPF may be helpful, and its payments may be used to "meet any other expenditure for which [the MTA] contemplates that reimbursement may be made from the Fund", but it has neither the capacity nor the intent to provide compensation for pollution damage claims.¹⁰⁸

The Inland Revenue Department does administer an environmental restoration account scheme to encourage businesses to set aside funds for environmental restoration costs with tax deductions and interest payments.¹⁰⁹ It is not clear how many operators, if any, have taken advantage of this scheme, so the fact remains

¹⁰⁵ 33 CFR Part 135, Subpart C - Financial Responsibility for Offshore Facilities § 135.203 - Amount required

¹⁰⁶ Maritime Transport Act, ss 333–341.

¹⁰⁷ Maritime Transport (Oil Pollution Levies) Order 2013/154; Maritime New Zealand "Overview of the Oil Pollution Levy" <www.maritimenz.govt.nz> (accessed 9 July 2015).

¹⁰⁸ Maritime Transport Act, s 331(h); See also Simon Judd "Compensation for Pollution from the *Rena*" (2014) 2 New Zealand Journal of Public and International Law at 265, "It seems clear from the purposes listed in s 331 of the MTA that the NZOPF is intended to apply to clean-up and related costs only rather than damage to property or economic loss."

¹⁰⁹ Maritime New Zealand *Deepwater Horizon: Lessons for New Zealand* (Maritime New Zealand, 2011) at 32.

that there is neither a public nor a private dedicated offshore petroleum environmental damage compensation fund in New Zealand.

2.4 *Lessons from Rena*

The *Rena* grounded on the Astrolabe Reef off Tauranga on the 5th of October 2011 and despite initial hopes that it could be saved, the sea tore the ship to pieces, spilling oil and scattering debris up and down the Bay of Plenty coastline over the following weeks. It became one of the most expensive and complicated salvage efforts in history, costing in excess of \$500m NZD which makes it second in expense only to the 2012 capsizing of the *Costa Concordia*.¹¹⁰ The New Zealand government's bill of \$46,891,000 was spread across 17 government departments and agencies, but this sum did not include the additional costs to local government or local businesses, ongoing damage to the environment, or the man-hours expended by volunteers in the clean-up operation.¹¹¹ The sinking provided Maritime NZ's first real test and led many environmental activists to conclude that New Zealand was not fully prepared for future offshore oil spills, particularly if they became more prevalent due to the proposed increases in offshore petroleum exploration and extraction activities.¹¹² Simon Murdoch's independent review reassuringly concluded that the scale and complexity of *Rena* caused Maritime NZ to "buckle initially" but to "adapt, adjust and create resilience".¹¹³ However, Murdoch explains that this was only so because the vessel held together long enough for an alliance to form between Maritime NZ, the Swedish P & I Club, and

¹¹⁰ Seafarers' Rights "Rena Salvage Bill Second only to Costa Concordia" (15 September 2015) <www.seafarersrights.org> (accessed 14 December 2015); Sarah Robson "Rena removal cost almost matches Concordia" (5 October 2012) 3News <www.3news.co.nz> (accessed 14 December 2015).

¹¹¹ The Treasury "Rena Grounding Costs" (24 April 2013) <www.treasury.govt.nz> (accessed 25 November 2016); Simon Judd "Compensation for Pollution from the Rena" (2014) 2 *New Zealand Journal of Public and International Law*.

¹¹² Environment and Conservation Organisations of Aotearoa New Zealand "Government should stop deep sea drilling" (6 April 2011) <www.eco.org.nz> (accessed 28 July 2016); Melinda Williams "Deep Sea Oil: Are Our Coasts At Risk?" (February 2014) <www.greenideas.co.nz> (accessed 28 July 2016); Greenpeace New Zealand *Out of our depth: Deep-sea oil exploration in New Zealand* (May 2012) <www.greenpeace.org> (accessed 28 July 2016); Michelle Cooke, Kirsty Johnston and Clio Francis "'Gumboot' sized oil patties wash ashore from Rena" (19 October 2011) <www.stuff.co.nz> (accessed 28 July 2016).

¹¹³ Murdoch, *Independent Review of Maritime New Zealand's Response to the MV Rena Incident on 5 October 2011*, above n 95, at 3.

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other foreign and domestic contributors and salvors.¹¹⁴ Atkins et al. reported that Maritime NZ's capacity to deal with major incidents on its own had been limited by funding constraints and "historical policy choices about acceptable risk".¹¹⁵ Maritime NZ may have been lulled into a false sense of security by the recent Thompson Clarke review, by an over-reliance on the MOSRA10 project that focussed on medium sized Tier 2 incidents and that assumed that more serious incidents would gradually build in scale and intensity, allowing the logistical build-up to keep pace.¹¹⁶ The *Rena* involved a "cold-start Tier 3 response", however, which was an eventuality that nobody appears to have anticipated.¹¹⁷

As the *Rena* was a cargo ship, the pollution damage did not fall under the 1992 CLC and Fund Conventions. The incident would have fallen under the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 ("Bunkers Convention") which holds shipowners strictly liable for pollution damage from fuel carried in their ship's bunkers, requires the shipowner to maintain insurance to cover bunker fuel pollution damage, and allows claimants to bring direct action against the ship's insurer.¹¹⁸ However, the New Zealand government had failed to adopt the Bunkers Convention, or the latest protocol of the Convention on Limitation of Liability for Maritime Claims 1996 ("LLMC"). The effect of this is that owners of non-CLC ships like the *Rena* would not be subject to the Bunkers Convention's rules for liability and compensation for pollution damage caused by fuel oil spills, and their limits of liability would be set according to the lower levels of the LLMC 1976. The point reveals that the government was not paying close attention to developments in international law, and that could have lessened the *Rena*'s owner's and insurer's liability.

¹¹⁴ At 4.

¹¹⁵ Atkins, Holm, Joseph and Majurey Ltd *Comparative Review of Health, Safety and Environmental Legislation for Offshore Petroleum Operations* (0119465) (Ministry of Economic Development 2010), at 3.

¹¹⁶ Murdoch, *Independent Review of Maritime New Zealand's Response to the MV Rena Incident on 5 October 2011*, above n 95, at 44.

¹¹⁷ At 36-49.

¹¹⁸ International Convention on Civil Liability for Bunker Oil Pollution Damage, UKTS No 8 (2005) / [2009] ATS 14 (Bunkers Convention) (opened for signature 23 March 2001, entered into force 21 November 2008) (2001).

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Fortunately, *Rena* was owned by Daina Shipping Co., a subsidiary of the Greek shipping company Costamare Inc., and Costamare were members of the Swedish Club. The Swedish Club is one of 13 members of the International Group of Protection and Indemnity Clubs, and it agreed to meet the full \$500m NZD cost of the salvage effort.¹¹⁹ Less fortunately, the vast majority of these funds were spent on dismantling and partially removing the wreck, and as little as \$11m NZD was left to compensate private business losses.¹²⁰ It is not clear whether the Swedish Club were motivated by generosity, by the fear of damage to reputation, or in anticipation of expensive litigation. The MTA does provide third parties with the right to take direct action against insurers of regulated ships and this may have been a motivating factor.¹²¹ Regulated ships are ships of 400 gross tonnage or more, not including oil tankers, and would include the *Rena*.¹²²

2.5 Concluding Remarks

The government's petroleum expert reports had made a strong case for attracting investment in extractive industries in New Zealand's EEZ, and New Zealand's oil and gas sector was expected to provide a tremendous economic contribution for some time to come. As the Ministry of Economic Development put it:¹²³

There is no single answer to New Zealand's, and the world's, energy challenges. Renewable energy has an increasingly important role to play, but we cannot shift from using non-renewables overnight. We need to ensure secure and affordable energy for our households and businesses and to achieve that we need to be realistic. For the next few decades at least, the world and New Zealand will need oil, gas and coal.

The Petroleum Action Plan appeared to follow Stuart McDouall's recommendations, that New Zealand should explicitly support the private development of petroleum resources, both offshore and onshore, while reviewing

¹¹⁹ The Swedish Club "Rena Insurance Arrangements" (17 October 2011) <www.swedishclub.com> (accessed 21 January 2016).

¹²⁰ Radio New Zealand News "Businesses fight for Rena payout" (16 June 2014) <www.radionz.co.nz> (accessed 21 January 2016).

¹²¹ Maritime Transport Act 1994, s 366.

¹²² Section 342.

¹²³ Ministry of Economic Development *New Zealand Energy Strategy 2011-2012: Developing Our Energy Potential* (Ministry of Economic Development, Wellington, NZ, 2011) at 2.

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permitting, health and safety and environmental regulations, especially those that might be a barrier to development.

If an accident does occur, then Maritime NZ has the resources to manage up to a Tier 3 spill and is expected to coordinate emergency responses with central government, the regional or local authority, and the owner and operator of the activity that is the source of the spill. New Zealand can also request international assistance under the OPRC and the Noumea Convention, and can appeal for aid from the Australian Maritime Safety Authority and Singapore's Oil Spill Response Limited. The *Rena* incident provides some assurance that Maritime NZ can cope with the unexpected, at the same time, the incident shocked and galvanized the public into opposing plans to expand offshore petroleum exploration and production activities.

The government has also followed McDouall Stuart's recipe for ignoring and sidelining opposition and has actively sought to reduce public participation in the consenting process. Exploratory activities are to be non-notified and the criminal penalties applying to those who enter 500m non-interference zones around drillrigs and ships have been strengthened. Marine consents are only reviewable on points of law, and as the two cases discussed above demonstrate, the courts will not challenge the merits of drilling off even the most pristine and iconic coastlines. As it happens, neither Anadarko nor Shell's foray into New Zealand waters was successful, and the current government will not grant any further permits, but current permits are being honoured, and a change of government could see that policy quickly reversed.

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3 New Zealand's Marine Pollution Legislation: Developing an Offshore Marine Pollution Damage Liability Regime

The previous chapter explored how the New Zealand government had commissioned a number of reports to emphasize the economic benefits of offshore petroleum exploration and production activities while downplaying potential risks to the environment. The assumption is that if any accident does occur, then Maritime NZ will be able to scale up its response, and can appeal for aid from other countries in extreme situations. Yet, even amongst the optimism, the reports had to concede that any serious offshore accident could cause significant financial and environmental damage to New Zealand.

This chapter will examine the development of New Zealand's liability laws relating to pollution damage caused by maritime and offshore activities. It will explain how New Zealand law has created a dual liability regime, with penalties for the unlawful discharge of harmful substances coinciding with civil liability for pollution damage caused by harmful discharges. These penalties and damages have come largely from international shipping law, but now also apply to damage caused by marine structures and operations used to explore for and exploit oil and gas resources from the seabed. In the post-*Deepwater Horizon* era, and with New Zealand's government actively seeking to expand offshore petroleum activities to the limits of the country's EEZ and continental shelf, it is vital to provide a clear picture of the liability that the owners and operators of those activities could face.

New Zealand has historically taken a piecemeal approach to regulating its offshore resource development. New Zealand governs its marine environment with numerous statutory regimes. In alphabetical order, these include:

- Continental Shelf Act 1964;
- Crown Minerals Act 1991 ("CMA");

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- Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (“EEZ Act”);
- Health and Safety at Work Act 2015 (“HSWA”);
- Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;
- Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016;
- Marine Protection Rules Part 200 (now Part 131);
- Marine Protection Rules Part 102;
- Maritime Transport Act 1994 (“MTA”);
- Resource Management Act 1991 (“RMA”);
- Resource Management (Marine Pollution) Regulations 1998; and
- Territorial Sea and Exclusive Economic Zone Act 1977.

The result is that there is no single comprehensive offshore liability and compensation framework governing oil pollution damage in New Zealand’s coastal, marine and continental waters, and a single incident could incur multiple penalties under multiple statutes. For example, if the mining operation is taking place inside New Zealand’s 12nm territorial waters, operators will be subject to the RMA’s resource consent procedures and its penalties for failing to abide by resource consent conditions, and for the unlawful discharge of harmful substances. Mining operations in New Zealand’s the seabed beneath its continental waters are subject to the EEZ Act’s marine consenting regime. The EEZ Act also has a range of penalties for discharging harmful substances and failing to abide by the consenting regime, and these link to the CMA which has its own system of permitting and information sharing requirements. As well as that, operators must satisfy workplace safety rules under the HSWA and its regulations. The next chapter will examine these issues in more detail.

The Maritime Transport Act 1994, or MTA, is the primary Act enforcing civil liability for marine pollution damage. This chapter will explain how that civil liability regime was created after the CLC and Fund Conventions were first accepted and ratified in New Zealand law by the Marine Pollution Act 1974 (“MPA”). It will show how the CLC and Fund Conventions’ definitions for

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pollution damage liability came to be applied to both shipping and offshore petroleum activities. However, it will show that there are significant differences between CLC and Fund Conventions' systems for channelling and security liability, and those imposed on the owners and operators of offshore installations and operations.

It should be noted that the RMA's amending legislation, the Resource Legislation Amendment Act 2017, has also made changes to the EEZ Act, but these are mostly in relation to the marine consent process for dumping and decommissioning plans.¹ This thesis is primarily concerned with the oil well blowouts that are statistically most likely to occur during the exploration phase, and it only mentions the decommissioning aspect for the sake of completeness.

3.1.1 Before the CLC and Fund Conventions? The Petroleum, Public Works and Oil in Navigable Water Acts

Before New Zealand accepted and ratified the CLC and Fund Conventions 1969/1971, the rules governing clean-up and compensation for oil pollution damage caused by petroleum prospecting or mining operations were primarily to be found in the Petroleum Act 1937 and the Public Works Act 1928. The Petroleum Act 1937 stated that:²

Every person having any right, title, estate, or interest in any land injuriously affected by the exercise of any powers conferred by this Act or by any licence, or suffering any damage from the exercise of any powers conferred by this Act or by any licence, shall be entitled to full compensation for all loss, injury or damage suffered by him.

Land included "Native land, and also any land below the sea or below any other water", so the Act applied to prospecting and mining operations offshore as well as on land.³

The Public Works Act 1928 ruled that if any person caused damage to another's land, then the two parties should settle any claims by agreement. It is only if that

¹ Resource Legislation Amendment Bill 2015 (100-1); Resource Management Amendment Act 2017, s 100A.

² Petroleum Act 1937, s 29(1).

³ Section 2.

was not possible that the person suffering damage could seek “full compensation”.⁴ A Compensation Court would determine the price “which the land if sold in the open market by a willing seller on the specified date might be expected to realize”.⁵ The problem with market valuations is that they depend upon their being a market for the affected resource or land. Coastlines and associated marine resources usually fall into the *res communes omnium*, they are not and cannot be owned, and that complicates issues of standing and valuation. Even if a market valuation is possible, the award may not cover the actual costs of preventive and remedial measures. Nevertheless, this was the method preferred in New Zealand at that time.

During the same period, the Continental Shelf Act 1964 vested the right to explore for and exploit the natural resources of the continental shelf in the Crown and provided that New Zealand’s civil and criminal laws applied on-board offshore installations. The Crown had the right to pass regulations about the construction of offshore installations, to establish safety zones around offshore operations, and concerning any “measures to be taken in any such safety zone for the protection of the living resources of the sea and the natural resources of the continental shelf from harmful agents.”⁶ The 1960s also witnessed the passage of the Oil in Navigable Waters Act 1965 which introduced penalties to enforce the 1954 OILPOL Convention. The Act required polluters to pay the costs of removing oil from the sea, and made them subject to criminal penalties for discharging oil into prohibited sea areas, whether that oil came from a ship, from a place on land, or from some apparatus used to transfer oil to or from a ship.⁷ The Act omitted discharges caused by offshore petroleum activities, however.

3.1.2 The *Torrey Canyon* and the Marine Pollution Act 1974

A new era began when New Zealand’s Parliament debated its response to the 1967 sinking of the *Torrey Canyon* and the subsequent CLC Convention 1969 conference, and the *Santa Barbara* oil well blowout that same year. The 1969 *Santa Barbara* blowout is not well remembered today, but it was the largest offshore oil

⁴ Public Works Act 1928, s 42.

⁵ Sections 46 and 79.

⁶ Sections 3, 7 and 8.

⁷ Oil in Navigable Waters Act 1965, s 6; International Convention for the Prevention of Pollution of the Sea by Oil, 12 UST 2989 (opened for signature 12 May 1954, entered into force 26 July 1958).

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spill in history before the *Deepwater Horizon*.⁸ The two incidents were raised on the 7th of August 1969, when Sir Basil Arthur, Labour MP, asked what “precautionary measures had the Marine Department taken to prevent or combat major oil pollution of the New Zealand coast?”⁹ In particular, he was concerned to know whether New Zealand had enough chalk powder coated with sodium stearate; a sinking agent French authorities used on the *Torrey Canyon* spill.¹⁰

The Minister replied that two committees had been set up since the sinking of the *Torrey Canyon*. The first would be tasked with visiting any tanker casualty and assessing salvage and clean-up options. The second body, the New Zealand Committee on Pollution of the Sea by Oil, duly reported back in March 1970, saying that:¹¹

The problem of fail-safe devices for oil rigs drilling offshore is under consideration by Mines Department, and, in conjunction with Marine department, draft regulations will be submitted to Government under the Continental Shelf Act 1964 and the Petroleum Act 1937.

The matter was raised again in Parliament in April of 1970, when the Minister of Mines was asked:¹²

1. What steps has he taken to minimise the risk of oil pollution of New Zealand beaches arising from possible accidents from offshore drilling operations; and
2. Does he intend to introduce legislation similar to that introduced in the U.S. making the owners of off-shore and on-shore installations liable for the costs of spills?

The plan the Minister then outlined was a familiar one. First, the operator would have to submit a drilling plan to the Inspector of Petroleum making provision for adequate “safety devices and safety precautions”, and to ensure that the well would

⁸ National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling “Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling: Report to the President” (January 2011) <www.oilspillcommission.gov> at 28–30, 58.

⁹ (7 August 1969) 362 NZPD 1813.

¹⁰ Chalk powder is a sinking agent used by the French to prevent oil from the *Torrey Canyon* from reaching the shore. The main disadvantages with sinking agents are that the oil tends to leach out over time, and as they sink they smother seabed biota which is why sinking agents are now largely banned. See US Congress, Office of Technology Assessment *Coping With An Oiled Sea: An Analysis of Oil Spill Response Technologies (OTA-BP-0-63)* (US Government Printing Office, Washington DC, 1990) at 24.

¹¹ RN Kerr “Report of the Marine Department for the Year Ended 31 March 1970” (1970) 3 AJHR H15 at 21.

¹² (14 April 1970) 365 NZPD 371.

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be plugged safely before abandonment.¹³ If an accident did occur, then “the full resources of the New Zealand Committee on the Pollution of the Sea by Oil would be available to deal with the cleaning up process.”¹⁴ The Petroleum Act 1937 made explorers fully liable for all damage caused to land, or at least its market value, as well as the costs of cleaning up beaches. The Minister had to concede that if a Santa Barbara sized spill occurred in New Zealand then “there would be a similar quite bad result because it is impossible to control oil once it had escaped.”¹⁵

Between 1972 and 1974, the new Labour government would introduce a new Marine Pollution Bill that Sir Basil Arthur MP would proudly call “as modern and up to date as any in the world.”¹⁶ The Marine Pollution Act 1974 (“MPA”) would govern liability for oil pollution from shipping and offshore drilling for the next twenty years. It repealed the Oil in Navigable Waters Act 1965, and accepted and ratified the CLC Convention 1969 which entered into force in 1975.¹⁷ The Fund Convention 1971 was also incorporated, but that did not enter into force until 1978.¹⁸ It applied to all New Zealand waters, which included the internal waters, the territorial sea and the sea, seabed and subsoil as described in section 9 of the Territorial Sea Contiguous Zone and Exclusive Economic Zone Act 1977, which extends from New Zealand’s territorial waters to the 200nm outer limit.¹⁹

The MPA’s obligations with respect to harmful discharges were virtually identical to those contained in the Oil in Navigable Waters Act 1965, and under section 30, the responsible party was liable for the costs of removing the oil, pollutant, waste or other matter. The penalty for illegal discharges was a fine not exceeding \$100,000, and just as in the 1965 Act, the offender would also be liable to pay for the costs of removing, cleaning up or dispersing any oil from New Zealand waters,

¹³ At 371.

¹⁴ At 371.

¹⁵ At 372.

¹⁶ (21 March 1974) 389 NZPD 716 at 717.

¹⁷ Marine Pollution Act 1974, s 70, Part IV “Civil Liability”; International Convention on Civil Liability for Oil Pollution Damage 973 UNTS 3 (opened for signature 23 June 1969, entered into force 19 June 1975).

¹⁸ Marine Pollution Act, Part V “Additional Compensation and Indemnification”; International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 11 ILM 284 (opened for signature 18 December 1971, entered into force 16 October 1978).

¹⁹ Section 2.

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or any foreshore or harbour works.²⁰ However, it was the first time those duties and penalties had been expanded to apply to those who owned or were in charge of installations or devices, or to “anything afloat (other than a ship)” and any structure used to explore and exploit the natural resources of the seabed and subsoil of the continental shelf.²¹ These criminal provisions were tested in *Union Steam Ship Company of New Zealand Ltd v Northland Harbour Board*, where the company unsuccessfully argued that oil spilled from a fractured pipe was an escape and not a discharge.²² The Court was satisfied that the ordinary and natural meaning of discharge or escape was broad enough to encompass any type of spillage, which suggests that it would also have been happy to include oil well blowouts. Richmond P. mentioned that the MPA incorporated the CLC Convention 1969, but said that he “did not intend to go deeply into these matters.”²³

The MPA drew a distinction between CLC Convention ships that carry bulk cargoes of oil, and other possible sources of marine oil pollution such as non-CLC ships, that is, general cargo ships and ferries, land-based sources, offshore installations, pipelines, any operations aimed at exploring and exploiting seabed resources, and apparatus used to transfer oil or pollutants.²⁴ The distinction was necessary because the CLC Convention's rules only channelled strict and limited liability to the owners of CLC ships, and the IOPC Fund only grants compensation under the Fund Convention if the damage is caused by CLC ship.

It is not possible to know what specific considerations went into the decision to use the 1969 CLC Convention's definitions to create a civil liability regime for marine pollution damage caused by offshore installations and operations because the cabinet papers, select committee reports or other policy documents on the subject were either never produced or cannot be found. It would be logical to assume, however, that the shipping conventions provided a convenient source of definitions, and it was decided at the time that, in the absence of an international offshore petroleum liability convention, that they provided the most analogous and

²⁰ Marine Pollution Act, s 10.

²¹ See section 2 for a full definition of offshore installation.

²² *Union Steam Ship Co of New Zealand Ltd v Northland Harbour Board* [1980] 1 NZLR 273.

²³ At 275.

²⁴ Marine Pollution Act, s 2.

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convenient source of definitions of oil pollution damage. But why would the MPA also abandon channelling, and why would it fail to provide for limited liability, mandatory insurance or a compensation fund?

The MPA was particularly timely as Christmas of 1973 saw New Zealand's worst-ever oil pollution incident when 6000 tonnes of bunker oil spilled from the *Olympic Goal*, a tanker owned by Aristotle Onassis.²⁵ The spill left "a black, sticky film up to an inch thick along 15 miles of coast" and caused \$21,000 worth of damage, but Mr Onassis escaped the owner's liability as the ship was on a charter at the time, and the charterer escaped liability because it was not the responsible owner.²⁶ One of the MPA's goals would, therefore, be to ensure that the "owner" would be broadened into a catch-all term that applied to all the parties responsible for causing oil spills.

In relation to offshore installations, the owner would include:²⁷

- (i) The person having any right or privilege or licence to explore the seabed and the subsoil and to exploit the natural resources thereof in connection with which the offshore installations is or has been or is to be used; and
- (ii) The agent or servant of the owner or the manager or licensee for the time being of the installation, or the person in charge of any operations connected therewith:

Under section 31(9), the owner of an offshore installation, pipeline, or person carrying on any operations to explore for and exploit natural resources would be liable for pollution damage. The pollution damage definition was paraphrased from the CLC Convention 1969, and it included:²⁸

... damage of any kind whatsoever occurring in New Zealand or in New Zealand waters which is attributable to the discharge or escape of oil, or (except in the case of any provision relating only to damage attributable to oil) any pollutant [, or which is attributable to the dumping of waste or other matter,] into the sea, whether New Zealand waters or not; and includes the costs of reasonable preventive measures taken in New Zealand or in New Zealand waters or outside those waters to prevent or reduce pollution damage and any further loss or damage occurring as a result of such measures; and in Part V of this Act also includes expenses reasonably incurred and sacrifices reasonably made by the owner of a ship voluntarily to prevent or reduce

²⁵ (21 March 1974) 389 NZPD 716 at 717, at 718.

²⁶ At 719.

²⁷ Marine Pollution Act, s 2.

²⁸ Section 2.

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pollution damage; and for the purposes of this definition the term "damage" includes loss:

The definition is much wordier than Article 1(6) of the CLC Convention 1969, but it has the same basic elements. Owners of both ships and offshore installations are liable for "damage of any kind" caused by the escape of oil, for the reasonable costs of preventive measures, and for any subsequent losses or damage caused by preventive measures. The term "pollutant" was to have been further defined by a declaration by the Governor-General, but no such declaration was ever made.²⁹ The MPA also incorporated the 1969 Convention's defences.³⁰

CLC shipowners were required to maintain insurance sufficient to satisfy the CLC Convention's requirements, and third parties were granted rights of direct action against those insurers.³¹ The owners of offshore installations, land-based facilities, pipelines or the persons carrying on operations, were merely warned that regulations might be passed requiring them to "maintain insurance or other financial security up to the limits of an aggregate amount of liability specified in the regulations."³² Mandatory insurance regulations would not be passed until after the Maritime Transport Act 1994 was enacted, and Marine Protection Rules Part 102 – Certificates of Insurance came into force on 20 August 1998.

To summarise then, the MPA continued earlier criminal penalties for harmful discharges and created a marine pollution damage civil liability regime and expanded both systems to apply to the owners and operators of offshore seabed mining operations. The shipping conventions did not apply to damage caused by offshore installations and petroleum exploration and exploitation operations, so there was no requirement to channel or limit their owners' and operators' liabilities. As long as there was some person to be held accountable, then broad and unlimited liability would offset the lack of insurance or a compensation fund.

²⁹ Section 2.

³⁰ Section 33(2)–(3).

³¹ Sections 37 and 39.

³² Section 45.

3.1.3 Criticisms of the MPA and the Maritime Transport Bill

The MPA was criticized from the outset, and by the early 1990s the time had come for the establishment of a new statutory regime.³³ Complaints focused on its narrow geographical scope that only captured activities in territorial waters, the overly broad defences, the point that successive governments had failed to pass regulations defining ‘pollutant’ or mandating insurance for offshore activities, and also because the CLC Convention’s narrow channelling provisions might allow potential wrongdoers to escape.³⁴ For example, a 1991 report by the Parliamentary Commissioner for the Environment pointed out that the oil pollution control laws were “far from satisfactory” as they underestimated the scale of damage that could be caused by large tankers that regularly visited Marsden Point.³⁵ The Maritime Transport Department acknowledged the PCE’s criticisms, adding that the MPA failed to provide for oil spill response planning and training and that it featured “awkwardly structured provisions relating to liability for oil pollution.”³⁶ Its solution was to propose the creation of a single liability regime for all ships with a separate regime for offshore installations, pipelines and transfer facilities.³⁷ This appears to have misunderstood that it was necessary to keep CLC and non-CLC ships separate for the purposes of the CLC Convention 1969, but it was prescient in anticipating the need for a separate civil liability framework for damage caused by the offshore oil industry.

The resulting 1993 Transport Law Reform Bill was initially felt to be too long and complex to be workable, and it was substantially revised and reintroduced.³⁸ The new Maritime Transport Act 1994 (“MTA”) would take account of the newly minted Resource Management Act 1991 (“RMA”) and of new international laws such as MARPOL 73/78 and the 1992 CLC and Fund Conventions.³⁹ The Bill dealt

³³ H.A. Versteeg “The International and National Response to the Problems of Marine Pollution” (1976-1979) 3 Auckland U.L. Rev. 209 at 225–230; W.D. Mapp “The Marine Pollution Act 1974: Is it Obsolete Within Six Months of its Enactment?” (1972-1975) 2 Auckland U.L. Rev. 23.

³⁴ Versteeg at 228.

³⁵ Office of the Parliamentary Commissioner for the Environment *The Control of Marine Oil Pollution in New Zealand: A Review of the System* (Office of the Parliamentary Commissioner for the Environment, Wellington, N.Z., 1991) at 3.

³⁶ Maritime Transport *Review of the Marine Pollution Act 1974* (Maritime Transport, Wellington, NZ, 1992) at i.

³⁷ At 48.

³⁸ (9 June 1994) 540 NZPD 1610 at 1611.

³⁹ Maritime Transport, above n 36, at 3.

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equally with maritime safety and marine pollution, regulating the discharge of harmful substances, and hazardous ships or structures, and providing for the collection of monies for oil pollution responses.⁴⁰ There were still no regulations mandating minimum insurance for offshore activities, however, and the Bill's chief objective was to deregulate coastal shipping making it easier for foreign companies to compete.

Public submissions on the Bill provide sparse evidence of concern for pollution from offshore installations, however. Shell Todd Oil Services Ltd commented that there should be a single definition of offshore oil installation which could cover all possible offshore oil and gas activities.⁴¹ Auckland Regional Council pointed out that the cost of prosecutions could be very high, and asked that the New Zealand Oil Pollution Fund be used to refund its legal bills.⁴² PEANZ, the Petroleum Exploration Association of New Zealand, submitted that it was "fundamentally inequitable" that the owners of foreign flag vessels could limit their liability, when the owners of offshore installations could not.⁴³ Oil Spill Service questioned the need for any "detailed planning system of oil spills" as:⁴⁴

- there has never been a major spill in New Zealand;
- no analysis of the pollution threat to New Zealand has been carried out;
- regional councils have little expertise in the area and the cost of developing and maintaining regional plans will be expensive; and
- complicated plans are notorious for falling apart.

Clause 402 of the Bill addressed "Liability for pollution damage from marine structures and operations", but the clause attracted zero submissions.

What conclusions can we draw from this legislative process? The MTA continued the MPA's dual system of levying polluters with the costs of removing harmful substances from coastal facilities, backed up with administrative/criminal penalties,

⁴⁰ Transport Committee "Report of the Transport Committee on the Maritime Transport Bill" Appendix to the Journals of the House of Representatives of New Zealand 1996, vol XLII (House of Representatives, Wellington, NZ, 1999) at 5-6.

⁴¹ New Zealand Ministry of Transport *Transport Law Reform Bill: Analysis of Submissions* (28 June 1993) (New Zealand Ministry of Transport 1993), cl 378.

⁴² Clause 380.

⁴³ Clause 401.

⁴⁴ Transport Committee, above n 40, at 3.

and of civil liability for pollution damage as that term was now expressed by the 1992 CLC and Fund Conventions. It is difficult to prove a negative, and it may be that there are other cabinet papers available that this research could not discover, but it certainly appears that little consideration had been given to the potential risks of a major offshore petroleum disaster. The basic and unshakeable assumption was that strict and unlimited liability for pollution damage would provide adequate compensation, so long as it was spread to a broad swathe of potential owners and operators of offshore installations and operations.

3.2 Civil Liability for Marine Pollution Damage from Offshore Installations and Operations under the MTA

The MTA continues the MPA's practice of applying administrative penalties for discharging harmful substance, while holding the owners and operators of offshore installations and operations strictly liable for damage caused by oil spills. Up until October of 2015, Maritime NZ had the power to prosecute offshore operators for unlawfully discharging harmful substances into New Zealand's territorial sea, marine waters and continental waters. Since October 2015, the enforcement role has been transferred to the Environmental Protection Authority, and the penalties are to be found in the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012. ("EEZ Act").

The MTA states that it intends to "protect the marine environment", "to continue, or enable, the implementation of obligations on New Zealand under various international conventions relating to pollution of the marine environment" and "to regulate maritime activities and the marine environment in the exclusive economic zone and on the continental shelf as permitted under international law." These international laws include the "International Convention on Civil Liability for Oil Pollution Damage, 1969; and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, and any subsequent protocol or amendments and revisions of those conventions if they have been accepted or ratified by New Zealand."⁴⁵ This means that the owners of CLC

⁴⁵ Maritime Transport Act 1994, s 342 and 370.

ships and importers of contributing oil will be subject to the 1992 CLC and Fund Conventions, as it entered into force in New Zealand on the 25th of June 1999.⁴⁶ The offshore petroleum liability regime is contained in Part 26A, "Civil liability for pollution of marine environment from marine structures". The two most important sections, for this thesis, are section 385B, which holds the owners and operators of marine structures and operations liable for the costs of removing harmful substances, and section 385C, which contains the offshore civil liability regime.

3.2.1 Section 385B – Costs of Removing Harmful Substances Discharged from Marine Structures and Operations

Under section 385B, "the person in charge of a marine operation or the owner of a marine structure" is liable to the Crown or marine agency for any costs reasonably incurred in dealing with the discharge or escape of harmful substances, waste or other matter, or for any costs in preventing the "grave and imminent threat" of such a discharge or escape.⁴⁷ A marine operation refers to "any operations or operation for, or connected with, the exploration for, or the exploitation or associated processing of, any mineral in the sea or the seabed."⁴⁸ A marine structure includes offshore installations, pipelines, "or any facility, site, structure, or thing used to transfer a harmful substance to or from a ship or offshore installation."⁴⁹ The definition of offshore installation remains much the same as it was in the MPA, and means "any artificial structure (including a floating structure other than a ship) used or intended to be used in or on, or anchored or attached to, the seabed for the purposes of the exploration for, or the exploitation or associated processing of, any mineral; but does not include a pipeline."⁵⁰

The marine agencies with standing to bring claims for clean-up costs include Maritime NZ and any regional council or operator of a port facility.⁵¹ "Harmful

⁴⁶ New Zealand Treaty Series 1999, No 3 (A.325) Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969 (London, 27 November 1992, Entered into force for New Zealand, 25 June 1999); New Zealand Treaty Series 1999, No 2 (A.324) Protocol of 1992 to amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (London, 27 November 1992, Entered into force for New Zealand, 25 June 1999).

⁴⁷ Marine agency is defined in the Maritime Transport Act, s 342.

⁴⁸ Maritime Transport Act, s 222(1).

⁴⁹ Section 385A.

⁵⁰ Section 222.

⁵¹ Section 342.

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substances” include oil and such materials as are specified in the Marine Protection Rules.⁵² A discharge includes “any release, disposal, spilling, leaking, pumping, emitting, or emptying”, but it does not include permitted dumping, or the release of harmful substances for the purpose of “legitimate scientific research into pollution abatement and control”.⁵³ It could be argued that the term “discharge” was not meant to apply to accidental oil well blowouts, and only referred to operational discharges. However, that point was specifically addressed when the MTA was amended in 2015 to prohibit unlawful discharges from mining activities, which includes taking or extracting minerals from the sea or the seabed.⁵⁴

“Dealing with” means:⁵⁵

... any reasonable action taken in relation to the discharge or escape of a harmful substance ... including (but not limited to)—

- (a) removing, containing, and rendering harmless the harmful substance, or the waste or other matter, or doing any of those things; and
- (b) any reasonable measures taken to prevent or minimise the discharge or escape of a harmful substance.

This would include the use of booms and dispersants, but it also means that owners and operators have to pay for all the costs of bringing wells back under control, and that could include operations to deploy capping stackers or to drill relief wells. That point would become more relevant during the consultation process over the new mandatory financial assurance regime, as it became apparent that the mandatory insurance regulations only required owners of offshore installations to provide insurance to cover the costs of pollution damage, and not the costs of preventing discharges of harmful substances under section 385B.

Generally, shipowners are entitled to the benefit of limited liability. The owners of ocean-going tankers are subject to limits under the CLC and Fund Conventions, and non-CLC shipowners’ liability is limited by the Convention on Limitation of Liability for Maritime Claims (“LLMC”). However, the LLMC specifically

⁵² Sections 225 and 385A, sections 226 and 226A.

⁵³ Section 225.

⁵⁴ Section 225.

⁵⁵ Section 385B(3).

excludes “floating platforms constructed for the purpose of exploring or exploiting the natural resources of the seabed or the subsoil thereof”.⁵⁶ This means that owners and operators of marine operations and structures will face unlimited liability under the MTA. That liability is strict and not absolute, and section 385E does allow for a number of defences, which have also been incorporated from the CLC and Fund Conventions.

Part 7 allows offshore petroleum operators to limit their liability for those parts of the operation that do make use of a ship, on damages claims for loss of life, injury, and loss or damage to goods under the LLMC and its 1996 Protocol.⁵⁷ As will be explained further below, this thesis has taken the point of view that offshore craft are not ships for the purposes of New Zealand law when they are anchored and engaged in oil and gas exploration activities, and the owners of offshore craft would be prevented from limiting their liability under Part 7. Others have taken the opposite point of view, however.⁵⁸ The Bunkers Convention will also apply, as it includes any “seaborne craft”, and any ship of over 1000 gross tonnes is now required to carry a Bunker Oil Certificate of Insurance.⁵⁹

3.2.2 Section 385C – Liability for Pollution Damage from Marine Structures and Operations

One of the central points of this thesis is that many of the features and definitions of the CLC and Fund Conventions have been used to create a civil liability regime for pollution damage from marine structures and operations. We recall that the CLC and Fund Conventions provided a framework for liability and compensation for oil pollution damage caused by accidents involving ships carrying bulk cargoes of oil. The four basic features of that system are that strict liability is channelled to the shipowner, liability is limited based on the size of the ship, the shipowner must

⁵⁶ Convention of 19 November 1976 on Limitation of Liability for Maritime Claims, 1456 UNTS 221 (opened for signature 19 November 1976, entered into force 1 December 1986) (1976), art. 15(5)(b); Colin M de la Rue and Charles B Anderson *Shipping and the Environment: Law and Practice* (2nd ed, Informa Law, London, 2009) at 248.

⁵⁷ See Maritime Transport (Limitation of Liability for Maritime Claims) Order 2015 (2015/111) for the latest limits of liability.

⁵⁸ See John Bay, Robert Makgill and James Willis “Exploration and Development within the EEZ - offshore oil and gas” (New Zealand Law Society Continuing Legal Education, March 2014) at 31.

⁵⁹ 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage, UKTS No 8 (2005) / [2009] ATS 14 (opened for signature 23 March 2001, entered into force 21 November 2008) (2001), art. 1(1); Maritime Transport Act, s 363A.

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maintain insurance up to the limits of that liability, and the importers of oil in the Contracting States are obliged to contribute to a complementary compensation fund. The CLC and Fund Conventions therefore provide a comprehensive system to allocate and financially secure liability for oil pollution damage.

When it comes to liability for pollution damage caused by offshore oil and gas exploration and extraction activities, section 385C states that:

- (1) Subject to sections 385D and 385E and Part 7, the owner of the marine structure or the person in charge of a marine operation is liable in damages, including goods and services tax (if any), for –
 - (a) all pollution damage in New Zealand, or to New Zealand's internal waters or continental waters or the seabed below those internal or continental waters caused by –
 - (i) a harmful substance that is discharged or escapes from that structure or operator; or
 - (ii) any waste or other matter that is dumped from that structure or operation; and
 - (b) the costs reasonably incurred for any reasonable preventive measures taken by the Crown (or marine agency) to eliminate or reduce a grave and imminent threat that a harmful substance may be discharged or escape from that structure or operation into the internal waters of New Zealand or into New Zealand continental waters or on to the beds below those internal or continental waters.

How does this compare to the four basic features of the CLC and Fund Conventions?

The owner of the marine structure and the person in charge of marine operations is subject to strict liability, but liability is not channelled to any one owner or operator, instead being spread widely to a range of potentially liable parties. Second, while the CLC and Fund Conventions limit the shipowner's liability and link those limits directly to the mandatory insurance level, owners and operators of marine structures and operations face unlimited liability under the MTA. It is only the owner of the offshore installation that must provide insurance, and then only to cover the costs of oil pollution damage claims. Further, the amount of insurance required is minimal and not related to the owner's unlimited liability. Finally, there is no domestic industry-fed compensation fund capable of providing the same complementary compensation role as that performed by the IOPC Fund.

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What does it mean to say that someone is liable in damages, when damages is a term that is usually associated with tortious rather than statutory liability? For example, damages has been defined as:⁶⁰

...pecuniary compensation, obtainable by success in an action, for a wrong which is either a tort or a breach of contract, the compensation being in the form of a lump sum awarded at one time, unconditionally and in sterling.

The tort of breach of statutory duty is not unusual, however, and it is entirely within Parliament's authority to create a duty that may be enforced by private action.⁶¹ As Lord Steyn said in *Gorringe v Calderdale Metropolitan Borough Council*, "the central question is whether from the provisions and structure of the statute an intention can be gathered to create a private law remedy."⁶² Section 385C therefore creates an actionable remedy for pollution damage, based upon the CLC and Fund Conventions, and which contains both public and private law elements.

Section 385A defines "pollution damage", in relation to damage caused by marine structures and marine operations, as:

... damage or loss of any kind and—

- (a) includes the costs of any reasonable preventive measures taken to prevent or reduce pollution damage and any damage or loss occurring as a result of those measures; and
- (b) includes the costs of reasonable measures of reinstatement of the environment that are undertaken or to be undertaken; and
- (c) includes losses of profit from impairment of the environment; but
- (d) does not include any costs in relation to the impairment of the environment other than the costs referred to in paragraphs (b) and (c).

This definition is almost identical to the way that the MTA treats pollution damage caused by CLC shipping, the only difference being that section 342 of Part 25 specifies that the harmful discharge must have come from a ship.⁶³ Is it safe to

⁶⁰ Harvey McGregor, Martin Spencer and Julian Picton *McGregor on Damages* (17th ed, Sweet & Maxwell, London, 2003) at 3.

⁶¹ J.F. Burrows "Breach of Statutory Duty" in Stephen Todd and J F Burrows (eds) *The Law of Torts in New Zealand* (6th ed, Thomson Reuters, Wellington [New Zealand], 2013) 437 at 438.

⁶² *Gorringe v Calderdale Metropolitan Borough Council* [2004] UKHL 15, [2004] 1 WLR 1057 at 1059.

⁶³ Section 342; See Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969, 973 UNTS 3, (opened for signature 27 November 1992, entered into force 30 May 1996) art. 1(6).

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assume that New Zealand courts will interpret pollution damage in Part 25 and Part 26A in the same way? A basic principle of statutory interpretation is that statutes are to be interpreted consistently with their underlying international treaties.⁶⁴ By using the same 1992 CLC Convention definitions of pollution damage, preventive measures and the same defences in both Part 25 and Part 26A, Parliament signalled its intention that incidents involving marine structures and marine operations would be treated, as far as possible, in the same way as if the damage was caused by a CLC ship.

Part 26A does not specify who has standing to bring a pollution damage claim, or whether the claim must be proved on the balance of probabilities or on the criminal standard of beyond a reasonable doubt. The only requirement is that the claimant suffered damage or loss caused by the escape or discharge of a harmful substance, or the dumping of water or other matter, from a marine structure or operation in New Zealand waters. Marine agencies, such as Maritime NZ and local and regional authorities, would be more focussed on recouping the costs of preventive and remedial measures; bird and animal wildlife rescue organizations would be interested in reimbursement for the costs of reinstating the environment; and private individuals, such as tourism and fishing operators, would be most interested in recovering losses of profit resulting from impairment of the environment. The MTA is also silent on the appeal process, and appeals must be subject to the general rules of court and civil procedure.

Instead of channelling liability to a single “shipowner” and requiring that person to maintain insurance up to a pre-set limited liability, as in the CLC Convention and as under Part 25 of the MTA, Part 26A seeks to capture a very broad range of potentially responsible parties in a net of unlimited liability. It becomes very important then to decide who is the “owner”, and who is the “person in charge of operations”. The term “owner” as it is defined in Part 18, “Preliminary provisions relating to marine pollution”, is designed to capture legal and natural persons at

⁶⁴ See R.I. Carter and J.F. Burrows *Burrows and Carter: Statute Law in New Zealand* (5th ed, LexisNexis NZ Limited, Wellington, 2015) at 501–5019; See *New Zealand Airline Pilots’ Association Inc v Attorney General* [1997] 3 NZLR 269 at 289 per Keith J.

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almost every level of the operation. In relation to offshore installations, it includes:⁶⁵

- (i) the person having any right, privilege, or licence to explore for or exploit minerals in connection with which the installation is being, has been, or is to be used; and
- (ii) the manager, lessee, licensee, or operator of the installation; and
- (iii) any agent or employee of the owner, manager, lessee, or licensee, or operator of the installation, or the person in charge of any operations connected with the installation.

The first category of owner is the person “having any right, privilege, or licence to explore for or exploit minerals”. Petroleum prospecting, exploration and mining permits are authorised by New Zealand Petroleum and Minerals under the Crown Minerals Act 1991 (“CMA”).⁶⁶ The CMA states that every permit holder must appoint a permit operator who will be responsible for the “day-to-day management activities under the permit.”⁶⁷ This is consistent with the industry practice of carrying out offshore petroleum activities by way of a joint venture between two or more permit participants. The operator is not just responsible for the day-to-day management of the permitted activity, but also plays a pivotal role as the agent for the parties to the joint venture.

The CMA and the MTA both provide rules stating that principals will be held liable for the offences of their agents, and it would be assumed that the same rules would apply to civil damages under the Act.⁶⁸ If the operator is a corporate entity, then even though strict liability means that there is no need to ascertain the corporate *mens rea*, the primary rules of attribution will operate so that the acts of agents and company directors are attributed to the company.⁶⁹ A company can be held vicariously liable for the acts of its employees and there is no practical difference between that and the liability of the principal for the acts of its agents.⁷⁰ It is only if

⁶⁵ Section 222(2)(b).

⁶⁶ Crown Minerals Act 1991, Part 1B.

⁶⁷ Section 27.

⁶⁸ Crown Minerals Act, s 102; Maritime Transport Act 1994, s 410

⁶⁹ See *Meridian Global Funds Management Asia Ltd v Securities Commission* [1995] 3 NZLR 7, [1995] 2 AC 500 (PC); Susan Watson “Corporate Liability for Civil and Criminal Wrongs” in John H Farrar and Susan Watson (eds) *Company and Securities Law in New Zealand* (2nd ed, Brookers Ltd, Wellington, [NZ], 2013) 165 at 187.

⁷⁰ At 190.

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the employee is acting outside of the normal course of his or her employment that the company is generally not liable.

While it might not be difficult to prove that a harmful discharge came from a particular installation or operation, it might be very difficult to prove exactly who caused the discharge. Offshore petroleum activities are complex and, as the *Deepwater Horizon* showed, may be the result of cascading failures resulting from the actions or omissions of multiple parties. The court may be called upon to decide how that liability should be allocated, and again the MTA is not entirely clear about whether liability should be allocated proportionally, in relation to the part each owner might have played in causing the accident, or jointly and severally.

The common law holds that where two or more tortfeasors acting independently cause different damage to the same plaintiff, then each will be separately liable for the specific damage that it has caused.⁷¹ Where two or more tortfeasors cause the same damage to the plaintiff, then the common law has long held that the victim may sue all or any of the tortfeasors and obtain judgment against each one for the full amount of the loss until that loss has been satisfied.⁷² Multiple tortfeasors are jointly responsible when their concurrent acts cause damage.⁷³ Joint and several liability means that all named parties will each be considered liable for the full amount of any claims.⁷⁴ This can be contrasted with proportional liability which holds the parties responsible only for their share in the cost of damages. Proportional liability may be calculated either by determining each person's responsibility for the accident, or according to their share in the ownership of the common property of the venture. This has the downside that if any party is unable to pay their share of the damages, then that share will simply not be paid, and that shifts some or all of the risk to the victims. Joint and several liability spreads the risk amongst all the parties equally, so increases the chances that the damages will

⁷¹ Stephen Todd "Multiple Tortfeasors and Contribution" in Stephen Todd (ed) *The Law of Torts in New Zealand* (5th ed, Brookers, Wellington, NZ, 2009) 1213 at 1213; *Television New Zealand Ltd v Ah Koy* [2002] 2 NZLR 616 (CA) at [31].

⁷² *Performance Cars Ltd v Abraham* [1962] 1 QB 33(CA).

⁷³ Todd at 1215; See *D.B. Breweries Ltd v Mainzeal Property and Construction Ltd* HC Auckland CP418/96, 26 June 2000.

⁷⁴ New Zealand Law Commission *Liability of Multiple Defendants* (NZLC R132) (Law Commission, Wellington, NZ, 2014) at 14.

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be paid, but that can mean that plaintiffs will focus upon the owner or person in charge with the deepest pockets, or which can be brought before a court, rather than the one who bore most responsibility for the accident.

Section 385D of the MTA holds that if the damage that one owner or person in charge of a marine operation has caused cannot be reasonably separated from the damage caused by another, then each will be considered jointly and severally liable for the whole cost, subject to the defences available in section 385E. This could mean that owners and operators will only be held jointly liable if the damage each has caused cannot be separated, for example if two different structures or operators simultaneously discharged harmful substances, creating one immense spill, although that does open the way for arguments about the volume of outflow each has discharged. However, given that the common law would hold multiple tortfeasors jointly responsible when they contribute to the same accident, the section should mean that if more than one party involved in an offshore operation contributes to the damage, then all should be considered jointly liable for the consequences.

A related issue is how the MTA treats other causes of action that could arise from the same incident. The CLC Convention 1992 provides that “[n]o claim for compensation for pollution damage may be made against the owners otherwise than in accordance with this Convention”.⁷⁵ The MTA provides a statutory bar in that its rules are the only avenue for pollution damages claims against CLC shipowners.⁷⁶ This rule is also consistent with Article II of the Fund Convention 1992, which states that the rules of the convention “shall apply exclusively” to the costs of pollution damage and preventive measures in the territory, territorial seas and exclusive economic zones of its contracting states.⁷⁷ The point is to ensure that the national courts which have exclusive competence to determine the outcome of pollution damage claims will conclude the argument, and that their rulings will not

⁷⁵ Protocol of 1992 to amend the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969, 973 UNTS 3, (CLC Convention 1992) (opened for signature 27 November 1992, entered into force 30 May 1996), art. III(4).

⁷⁶ Section 352.

⁷⁷ Protocol of 1992 to amend the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention 1992) 1953 UNTS 330 (opened for signature 27 November 1992, entered into force 30 May 1996), art. II.

be undermined by actions in other forum. In other words, the CLC and Fund Conventions have incorporated the principle of *res judicata*, the Latin phrase meaning that a matter has been finally adjudicated.⁷⁸

The MTA does not bar claims outside of the statutory regime against the owners and operators of marine structures and operations, however, and other statutory and criminal penalties might apply.⁷⁹ The consequence is that while a CLC shipowner would only face liability for pollution damage under the MTA, the owners and operators of offshore petroleum activities could face multiple legal challenges with multiple causes of action resulting in complicated and prolonged litigation. It should also be noted that the common law has extended liability to local authorities and building inspectors charged with inspecting and permitting building activities.⁸⁰ On that rationale, the installation's inspectors, and by extension the Crown, could be held liable for issuing marine consents that revealed defects in the operator's discharge management plan, or even faults in the marine structure and if those defects or faults are causative of any damage.

The MTA does contain a general time limit on claims in respect of pollution damage claims, however, and proceedings must commence no later than three years from the date when the claim rose, and no later than six years after the event or the first of the events incurring liability.⁸¹ This time limit only specifically refers to the discharge or escape of oil from CLC and Bunkers Convention Ships, which raises the question of whether that general time limit would apply to pollution damage from other sources, such as decommissioned and abandoned offshore installations. If it did, then offshore operators would need to carefully consider the safety of all stages of not only their own activities, from exploration right through to decommissioning and beyond, as the time limit would begin to operate from the

⁷⁸ Jonathan Law *A Dictionary of Law* (8th ed, Oxford University Press, Oxford, United Kingdom, 2015).

⁷⁹ See Paul David "The Search for Oil in New Zealand Waters: Work to be Done?" (2011) 25 *A&NZ Mar LJ* 49 at [13.2].

⁸⁰ See *Brown v Cole* (1995) 14 *BCLR* (3d) 53, [1996] 2 *WWR* 567 (BCCA), where both builder and building inspector were held jointly liable for a defective building; See *Smaill v Buller District Council* [1998] 1 *NZLR* 190 (HC) where the local authority issued building permits that were contrary to statutory requirements.

⁸¹ Maritime Transport Act, s 361.

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moment that the harmful discharge actually escaped, rather than from when drilling activities ceased.

Similar to section 385B, the availability of the defences in section 385E means that liability is not absolute, however. The MTA's defences are drawn from Article III of the CLC Convention 1992 and the owner of the marine structure or the person in charge of marine operations may exclude their liability if the damage was caused by:⁸²

- acts of “war, hostilities, civil war, insurrection”;
- the occurrence of a “natural phenomenon of an exceptional, inevitable, and irresistible character”;
- damage caused by the intentional acts or omissions of a third party;
- the negligence or wrongful act of the government, authority or other person responsible for the maintenance of lights or other navigational aids; and
- the negligent or intentional act or omission of any claimant, or by their employees or agents.

Under section 385F, the court may reduce the claimant's damages as far as “it thinks just and equitable” if the damage was caused wholly or in part by the claimant's own intentional acts or omissions, or their negligence. If damage was caused by a third party, then proceedings may be brought directly against that person.⁸³ Thus, even though liability under section 385C is strict, and may be jointly apportioned between many owners and operators, every incident will be fact specific and the court will have regard for each owners' role in causing the damage complained of.⁸⁴

Owners will only be held liable for the reasonable costs of preventive and remedial measures, but the MTA does not specify what costs will be considered reasonable. Presumably, the National On-Scene Commander and the Director of Maritime NZ will cooperate in formulating an emergency response plan. Under section 233, the Director has substantial powers to order the owner of a ship, offshore installation or pipeline to “take all necessary steps” to rectify any hazardous conditions if he or she has reasonable grounds to believe that a ship, offshore installation or pipeline

⁸² Section 385E.

⁸³ Section 385G.

⁸⁴ *New Zealand Apple and Pear Marketing Board v Watts* [1967] NZLR 205 (CA).

is responsible for the discharge or escape of harmful substances. Section 424 of the MTA provides that any person may appeal the exercise of any power conferred on the Director by any section of the MTA to the District Court, so long as the section involved has provided the right of appeal. The court might then assess the reasonableness of the Director's decisions using the NEBA methodology and the MOSRA15 system. A MOSRA15 analysis could show whether the affected area was valuable enough to justify the costs of an expensive emergency response. The less valuable the area, the greater the benefit of allowing the oil to disperse naturally, and vice versa, more valuable areas should attract greater efforts.

The MTA's civil liability provisions and their defences have never been tested in court, so it is difficult to say more about them other than that they exist. Bevan Marten argues that the MTA's civil liability regime is the "product of an unusual evolution, in that as well as being sourced from the CLC and Fund Conventions and the remnants of earlier domestic regimes, it also contains elements from the Bunkers Convention."⁸⁵ He says that courts would be expected to interpret the law consistently with those conventions, in some instances its language departs from the international laws and that this leaves room for the notion that the New Zealand Parliament intended that the parties should have "substantially different rights."⁸⁶ Marten may have been referring to CLC shipowners' liabilities under Part 25, but the same point could be made about offshore installation owners' and operators' liabilities for oil pollution damage under Part 26A.

A New Zealand court may be guided in part by the recommendations and guidelines in the IOPC Fund's *Claims Manual*, and Chapter 5 will show how the CLC and Fund Convention influenced (or failed to influence) the Ministry of Transport's interpretation of offshore installation's mandatory insurance rules.⁸⁷ However, one point needs to be clear. The CLC and Fund Conventions do not apply to oil pollution damage caused by offshore petroleum installations and activities. Consequently, New Zealand courts will be more interested in finding a reasonable solution to a

⁸⁵ Bevan Marten *Maritime Law in New Zealand* (Thomson Reuters, Wellington, 2016) at 187-188.

⁸⁶ At 188.

⁸⁷ International Oil Pollution Compensation Funds *Claims Manual (October 2016 Edition)* (International Oil Pollution Compensation Funds, London, 2016); See Navigatus Consulting Ltd *Financial Assurance Review - Integrated Damages Assessment Model* (Ministry of Transport 2015).

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complex damages action consistent with the overall objective of the law, than in obeying the precepts of an international convention that is one step removed.

3.3 *Concluding Remarks*

This thesis has identified the development of a dual regime of penalties and civil liability for pollution damage in New Zealand law. The broad stages in the development of New Zealand's marine pollution regulation reflect New Zealand's growing interest in governing and exploiting the resources of its EEZ and continental shelf. During the 1920s and 1930s, pollution damage fell under Public Works and Petroleum Acts, and later under the Oil in Navigable Waters Act 1965. Persons suffering pollution damage were entitled to compensation calculated according to the market value of the damaged property, and the polluter was obliged to cover the clean-up costs. The *Torrey Canyon* and Santa Barbara oil well blowouts in 1967 and 1968 brought the issue of marine oil spills front and centre before Parliament, leading to the Marine Pollution Act 1974, and the adoption of the CLC Convention 1969 and Fund Convention 1971.

The intent behind the MPA was to avoid further ignominious incidents like that of the *Olympic Goal*, where the owner escaped all liability because the ship was on charter at the time of the accident. It sought to capture a wider range of shipowners and hold them strictly liable for pollution damage as that definition was paraphrased from the CLC Convention 1969. Yet as this chapter has demonstrated, there is no evidence that the MPA's authors were aware that the CLC and Fund Conventions do not apply to pollution damage from offshore activities, and that the arrangements might be inadequate to deal with a Santa Barbara sized oil well blowout. Offshore mandatory insurance regulations were promised but were not adopted, leaving a palpable gap in the MPA's compensation regime.

The Maritime Transport Act 1994 ("MTA") updated New Zealand's marine pollution law to keep it in line with the 1992 CLC and Fund Conventions. Marine Protection Rules – Part 106 only became effective in 2004 and oblige the owners of offshore installations to maintain a minimum of 14m IMF units of account worth

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of pollution damage insurance. The minimum level was already obsolete, however, as the figure of 14m IMF units of account was taken from the 1976 Protocols to the CLC Convention and Fund Conventions 1969/1971, and not from levels mandated by the updated 1992 Conventions. The insurance requirements were a step in the right direction, but again there was no consideration of the need for additional financial security to offset the gap left by the IOPC Fund, or the role that a specialist funding body could play in shaping compensation policy.

Without more guidance on the meaning of terms like “pollution damage”, offshore industry participants faced a great deal of uncertainty under New Zealand’s strict and unlimited marine pollution liability law. The MTA’s definitions of owner and operator are intentionally broad, sweeping platform, pipeline and drillship owners, joint venture permit participants, their directors, installation managers, agents, employees and third party contractors alike up in a web of individual, vicarious and even joint and several liability. The extent of this liability could come as a shock to many, especially to permit participants who might have believed that their obligations were allocated proportionally under a joint operating agreement.

Much may depend upon the strength of the operator’s and permit participant’s financial security guarantees. As this thesis will explain, the current mandatory insurance requirements are minimal, and in 2014 the Ministry of Transport (“MOT”) began consulting with petroleum operators on a preproposal to increase the minimum insurance level to \$300m NZD. The consultation process is the most interesting development in recent times, as it involves the first explicit attempt by any New Zealand government to address question of liability and compensation for pollution damage caused by offshore installations or operations.

The Penalties for Harmful Discharges from Offshore Petroleum Installations and Operations in New Zealand

4 The Penalties for Harmful Discharges from Offshore Petroleum Installations and Operations in New Zealand

This chapter will review the penalties that may apply to the owners and operators of offshore oil and gas installations and operations in the event of an accidental oil spill. It will begin with by describing how the criminal penalties for the unlawful discharge of harmful substances were incorporated into New Zealand law in the Marine Pollution Act 1974 (“MPA”) and from there to the Maritime Transport Act 1994 (“MTA”). Since 2015, the MTA has been amended so that these penalties have been transferred to the EEZ Act and the task of regulating harmful discharges has been transferred from Maritime NZ to the Environmental Protection Authority (“EPA”).¹ What effects has this transfer in responsibility had, and have the penalties changed at all?

The chapter will then consider penalties in other statutory regimes, including the Resource Management Act 1991 (“RMA”), the Crown Minerals Act 1991 (“CMA”) and the Health and Safety at Work Act 2015 (“HSWA”). A number of academics have considered New Zealand’s marine regulations, including issues of environmental protection, and this section draws liberally from their work, as well as from the various policy documents.² It will not discuss penalties under the Maritime Crimes Act 1999, or the recent Maritime Crimes Amendment Bill that

¹ Exclusive Economic Zone and Continental (Environmental Effects) Amendment Act 2013 (; Exclusive Economic Zone and Continental (Environmental Effects) Amendment Act 2013 Commencement Order 2015.

² Barry Barton “Offshore Petroleum and Minerals: Plugging Gaps in the Present Framework” [2011] NZLJ 211; Nicola de Wit “A Gaping Abyss: Environmental Regulation of New Zealand’s Oceans” (LLB (Hons) Dissertation, University of Otago, 2011); Paul David “The Search for Oil in New Zealand Waters: Work to be Done?” (2011) 25 A & NZ Mar LJ 49; For reviews of New Zealand legislation pertaining to the RMA, MTA, CMA and marine areas generally see Paul David “Marine Pollution” in Derek Nolan (ed) *Environmental Resource Management Law* (5th ed, LexisNexis NZ Ltd, Wellington, [NZ], 2015) 638; Trevor Daya-Winterbottom “The Prosecution of Environmental Offences in New Zealand” (paper presented to Sentencing Conference, Canberra, 8-10 February 2008); Trevor Daya-Winterbottom “Protection of the Coastal and Marine Environment” in Peter Salmon and David P Grinlinton (eds) *Environmental Law in New Zealand* (Thomson Reuters New Zealand Ltd, Wellington, NZ, 2015); Bevan Marten “The Rena and Liability” [2011] NZLJ 341; Bevan Marten “Limitation of Liability in Maritime Law and Vessel Source Pollution: A New Zealand Perspective” (2013) 2 N. Z. Law Rev. 199.

focus on acts of violence, hijackings and other terrorist acts on board ships and fixed platforms.

It should be noted at the outset that what makes these penalties criminal in nature, is that the offenders must be convicted in a court proceeding, the criminal burden of proof will apply, and the court will apply the principles of the Sentencing Act 2002. Some statutes provide for civil pecuniary penalties, which are decided by a court according to the civil standard of proof and do not result in a criminal conviction, but such penalties do not feature in the MTA or EEZ Act.³ The RMA and the EEZ Act do provide fixed administrative penalties that may be imposed directly by a regulatory agency, for example, if an operator breaches an enforcement order, and these will be discussed below. This thesis is mostly concerned with the administrative penalties for the discharge of harmful substances, however.

4.1.1 Penalties for Harmful Discharges from Marine Structures and Operations Prior to 2015

Maritime NZ has the primary role enforcing a number of relevant regulations, including those specifying oil importers' and shipowners' financial obligations under the 1992 CLC and Fund Conventions, and under the Supplementary Fund Protocol.⁴ In addition, Maritime NZ has the power to impose instant fixed administrative fines for infringement offences. For example, Maritime NZ has power under the Marine Protection (Offences) Regulations 1998/205 to fine offshore installation operators for failing to implement a proper discharge management plan.

Maritime NZ's Prosecution Policy and Compliance Operating Model are available on its website.⁵ The website states that Maritime NZ's Legal Services Team, or a Crown Solicitor acting on the instructions of the Legal Services Team, will decide

³ See New Zealand Law Commission *Civil Pecuniary Penalties (Issues Paper 33)* (Law Commission, Wellington, NZ 2012) at 8–9 and 23 for a discussion of the nature of civil pecuniary and administrative penalties; Australian Law Reform Commission *Principled Regulation: Federal Civil and Administrative Penalties in Australia* (2003), Chapter Two - "The Nature of Penalties".

⁴ Maritime Transport (Fund Convention) Levies Order 1996 (SR 1996/337); Maritime Transport (Maximum amounts of liability for pollution damage) Order 2003 (SR2003/260).

⁵ Maritime New Zealand "Maritime New Zealand's Prosecution Policy" <www.maritimenz.govt.nz> (accessed 9 September 2016).

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whether circumstances merit prosecution according to the Evidential and Public Interest Tests required by the Solicitor-General's Prosecution guidelines.⁶ Any decision to prosecute will be coordinated with the New Zealand Police, the Environmental Protection Authority, local and regional councils, the Ministry for Primary Industries, and with WorkSafe New Zealand in health and safety cases. The District Court has jurisdiction over offences against both the MTA and the RMA.

New Zealand's approach to regulating the discharge of harmful substances was heavily influenced by the 1954 International Convention for the Prevention of Pollution of the Sea by Oil ("OILPOL").⁷ This was superseded the 1973 International Convention for the Prevention of Pollution from Ships and its Protocol of 1978 ("MARPOL 73/78"), and by the 1972 Convention on the Prevention of Marine Pollution by Dumping of Waste or Other Matter ("London Dumping Convention").⁸ As the Maritime Transport Department's discussion paper, "Review of the Marine Pollution Act 1974" explained, the MPA's penalties for harmful discharges were introduced to implement New Zealand's obligations under OILPOLs provisions.⁹ The later report, "Proposals for Regulations under the Resource Management Act 1991 to control Marine Pollution", stated that "MARPOL and the London Convention are two long-established international conventions that are both designed to prevent marine pollution".¹⁰ MARPOL 73/78 focussed on preventing operational and accidental discharges from shipping,

⁶ See Crown Law *Solicitor-General's Prosecution Guidelines* (Crown Law, 2013) <www.crownlaw.govt.nz> (accessed 2 December 2016).

⁷ International Convention for the Prevention of Pollution of the Sea by Oil, 12 UST 2989 (OILPOL) (opened for signature 12 May 1954, entered into force 26 July 1958).

⁸ International Convention for the Prevention of Pollution from Ships and its Protocol of 1978 (MARPOL 73/78) 12 ILM 1319 (1973), 17 ILM 546 (1978) (opened for signature 2 November 1973, entered into force 2 October 1983); 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1046 UNTS 120 (opened for signature 29 December 1972, entered into force 30 August 1975); Paul David "Marine Pollution", above n 2, at 670.

⁹ Maritime Transport *Review of the Marine Pollution Act 1974* (Maritime Transport, Wellington, NZ, 1992) at [18.1].

¹⁰ Ministry for the Environment *Proposals for Regulations under the Resource Management Act 1991 to control Marine Pollution* (Ministry for the Environment, Wellington, N.Z., 1996) at 5–8.

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however, and not on safety regulations or penalties aimed at preventing oil well blowouts.

Prior to 2015, Part 19 of the MTA - “Protection of marine environment from harmful substances” - prohibited and criminalized the discharge or escape of harmful substances, unless that discharge was provided for by the marine protection rules. In particular, Marine Protection Rules: Part 200 provided rules to prevent pollution of the marine environment from offshore installations, and gave effect to both MARPOL 73/78 and to the International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (“OPRC”).¹¹ Harmful substance was defined to include any “substance which is ecotoxic to aquatic organisms and considered hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001” and oil.¹² Maritime NZ published a guide to the marine protection rules explaining that the term “harmful substance” includes “petroleum oils, noxious liquid substances (chemicals and other types of oil), marine pollutants in packaged form, sewage and garbage.”¹³

Every person who discharged a harmful substance in breach of the MTA was liable (on conviction):¹⁴

- (a) To imprisonment for a term not exceeding 2 years or a fine not exceeding \$200,000 and, if the offence is a continuing one, to a further fine not exceeding \$10,000 for every day or part of a day during which the offence is continued; and
- (b) To pay such amount as the Court may assess in respect of the costs incurred in respect of or associated with removing, containing, rendering harmless, or dispersing any harmful substance discharged as a result of the offence; and
- (c) To an additional penalty under section 409 of this Act.

¹¹ Marine Protection Rules Part 200: Offshore Installations - Discharges; International Convention for the Prevention of Pollution from Ships and its Protocol of 1978 (MARPOL 73/78) 12 ILM 1319 (1973), 17 ILM 546 (1978) (opened for signature 2 November 1973, entered into force 2 October 1983); International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC Convention) 1891 UNTS 78 (opened for signature 30 November 1990, entered into force 13 May 1995).

¹² Marine Protection Rules Part 200, rule 200.2.

¹³ Maritime New Zealand *Marine Protection Rules: Your Guide (2010)* <www.maritimenz.govt.nz> (accessed 8 July 2015) at 4.

¹⁴ Maritime Transport Act 1994, [reprint as at 8 June 2015], s 244.

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It was also an offence to fail to report any discharge or escape of a harmful substance, or any other pollution incident.¹⁵ Section 409 provided that the Court could impose a fine equivalent to:

... 3 times the value of any commercial gain resulting from the commission of that offence if the Court is satisfied that the offence was committed in the course of producing a commercial gain.

The financial penalties could be substantial if the discharge was prolonged or profitable. The court could also pass a sentence of imprisonment on persons other than the masters or owners of foreign ships, if it was satisfied:¹⁶

- (i) That the person intended to commit the offence, or the offence occurred as a consequence of any reckless act or omission by the person with the knowledge that the act or omission would or would be likely to cause serious damage to the marine environment; and
- (ii) That the commission of the offence has caused or is likely to cause serious damage to the marine environment within the territorial sea:

The *mens rea* set a high bar for imprisonment, and would only be applied in the most egregious cases.

Maritime New Zealand v Prosafe Production Services PTE provides a good overview of sentencing practices prior to 2015.¹⁷ This was a case of harmful discharge under section 237(b) of the MTA, involving a joint venture between the Singaporean company Prosafe Production Services Pty Limited (“Prosafe”) and Australian Worldwide Exploration Limited (“AWE”). Prosafe owned an FPSO called the *MV Umuroa* which had accidentally discharged several tonnes of “black water” containing “subterranean well fluids, sulphate reducing bacteria and crude oil.”¹⁸ The Court found that the defendants were guilty for three reasons. Prosafe and AWE failed to proper operational guidelines, allowing the black water treatment process to take place in the full knowledge that measuring equipment was

¹⁵ Sections 238–239, 248.

¹⁶ Section 244(2)(b).

¹⁷ *Maritime New Zealand v Prosafe Production Services PTE Ltd* DC New Plymouth CRI-2008-043-2447, 7 July 2009.

¹⁸ At [5].

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faulty and that it was “fully dependent upon human intervention, which lapsed.”¹⁹ The Court considered cases such as *Machinery Movers Ltd v Auckland Regional Council* and *Northland Regional Council v Thalassic Steamship Agency Inc*, and the mitigating and aggravating factors provided by the Sentencing Act 2002.²⁰ Given the financial capacity of the defendants, and that the maximum possible penalty under the MTA was a \$200,000 fine, the fine was set at \$52,500 each, plus Court costs of \$130.

Section 410 of the MTA makes principals liable for the acts of their agents and employees, “in the same manner and to the same extent as if he, she, or it had personally committed the offence.” Therefore, if any director or other person involved in the management of the company committed an offence, then both they and the corporate body could be held liable. The principal has a good defence if the act causing the offence took place without their authority, permission or consent, and if they did not know that the offence was being committed, or could not be taken to have reasonably known about the offence, and if the individual took all reasonable steps to prevent the offence from occurring.²¹ Trevor Daya-Winterbottom has written about the RMA’s equivalent section 340, and describes how company directors may be held personally liable for their actions.²² In *R v Lorenzen*, for example, the Crown proceeded directly against the defendant director because he either contravened the law, permitted its contravention, or had aided, abetted or incited the company so was a party to the offence under s 66 of the Crimes Act 1961.²³ In *Canterbury Regional Council v Newman*, the Court described section 340’s absolute liability with vicarious implications as a “harsh regime”, but necessary in the public interest.²⁴

¹⁹ At [22].

²⁰ *Maritime New Zealand v Prosafe Production Services PTE Ltd DC New Plymouth CRI-2008-043-2447*, 7 July 2009, at [35]–[39]; *Machinery Movers Ltd v Auckland Regional Council* HC Auckland AP No 23/93, 23 June 1993, (1993) 1A ELRNZ 411, [1994] 1 NZLR 492, (1993) 2 NZRMA 661; *Northland Regional Council v Thalassic Steamship Agency Inc* DC Whangarei CRN208800160913, 28 June 2000.

²¹ Paul David “Marine Pollution”, above n 2, at 677.

²² Daya-Winterbottom “The Prosecution of Environmental Offences in New Zealand”, above n 2, at 5–6.

²³ *R v Lorenzen* [2004] NZRMA 24, [2004] DCR 173 at [26].

²⁴ *Canterbury Regional Council v Newman* (2001) 7 ELRNZ 137 at 155.

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4.1.2 Penalties for Harmful Discharges from Marine Structures and Operations under the EEZ Act since 2015

In 2010, the Ministry for Economic Development published a report entitled “Comparative Review of Health, Safety and Environmental Legislation for Offshore Petroleum Operations.”²⁵ The review compared regulatory frameworks in the UK, Australia, Ireland and Norway, and recommended that New Zealand establish a petroleum permitting regime administered by a new environmental agency, with consolidated jurisdiction over offshore oil and gas activities.²⁶ The government would go on to enact the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012, and empower the Environmental Protection Authority (“EPA”) with oversight over marine consenting for offshore activities. The justification was that a specialist oil and gas regulator would have “sound knowledge of the operational parameters of the installations and activities”, and that a focus on process safety would have the additional benefit of preventing the “major environmental impacts of offshore oil and gas activities (i.e. large volume oil spills).”²⁷

In 2011, Cabinet approved a proposal to transferring the regulation of the discharge of harmful substances from offshore installations and pipelines to the EPA. The transfer was accompanied by a statement clarifying that “the Maritime Transport Act will continue to regulate, and Maritime New Zealand continue to be responsible for, marine oil spill contingency planning, preparedness and response, and discharges from ships.”²⁸ The rationale was that the transfer creates:²⁹

...greater certainty and reduced compliance costs for industry, avoids inefficiencies from duplicating processes, enhances environmental effects management such as consideration of cumulative effects, and provides the opportunity for improved public and iwi participation.

²⁵ Atkins, Holm, Joseph and Majurey Ltd *Comparative Review of Health, Safety and Environmental Legislation for Offshore Petroleum Operations* (119465) (Ministry of Economic Development, 2010)

²⁶ At i-ii.

²⁷ At 11.

²⁸ Ministry for the Environment *Managing our oceans: A discussion document on the regulations proposed under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Bill* (Ministry for the Environment 2012) at 5; John Bay, Robert Makgill and James Willis “Exploration and Development within the EEZ - offshore oil and gas” (New Zealand Law Society Continuing Legal Education, March 2014).

²⁹ Marine Legislation Bill 2012 (58-1), Explanatory Note, at 7.

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The EEZ Act was duly amended, and the transfer took effect from the 31st of October 2015.³⁰ As the EPA has all powers that are “reasonably necessary to enable it to carry out its functions”, it is EPA enforcement officers who will monitor compliance with marine consents, and who will initiate criminal proceedings for offences against the Act if necessary.³¹ Maritime NZ and the EPA are still expected to work closely together, and the EPA will provide Maritime NZ with any information which may assist in the performance of its functions, and vice versa.³²

Section 20A provides that the EEZ Act will now regulate harmful discharges from structures, submarine pipelines and ships involved in mining, into the sea and into or onto the seabed of the EEZ or the continental shelf. The MTA will continue to regulate “the discharge of harmful substances (other than a mining discharge)” from ships, including those involved in mining activities, but Part 19 has been amended to reflect the fact that discharges from structures, pipelines, and mining discharges from ships will now be regulated under the EEZ Act.³³ The Director of Maritime NZ maintains powers to investigate the discharge or escape of harmful substances in breach of the MTA, the RMA, the EEZ Act, as well as any pollution incidents.³⁴

The EEZ Act states that a harmful substance means “any substance specified as a harmful substance by regulations under this Act.” The relevant regulations confirm that harmful substances are substances that are “ecotoxic to aquatic organisms, and are hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 or because they are oil”.³⁵ Like the MTA, the EEZ Act defines discharge to include “any release, disposal, spilling, leaking, pumping, or emptying”, but does not specifically include the term “blowout”.³⁶ Section 20 also

³⁰ Part 2 was replaced by section 11 of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Amendment Act 2013, “Duties, restrictions, and prohibitions”.

³¹ Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (“EEZ Act”), ss 13-15 and 136.

³² Section 158A; Maritime Transport Act, s 231.

³³ EEZ Act, s 20A(3); Maritime Transport Act, Part 19.

³⁴ Maritime Transport Act, Part 5, ss58-59 and s 235.

³⁵ Exclusive Economic Zone and Continental Shelf (Environmental Effects - Discharge and Dumping) Regulations 2015 LI 2015/228, ss 4 and 16; Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 (SR 2001/112); Environmental Protection Authority “Decision on Marine Discharge Consent Application: OMV New Zealand Limited; Application to discharge harmful substances from the Maari Offshore facilities (EEZ300004)” (24 April 2017) <www.epa.govt.nz> at [13].

³⁶ EEZ Act, s 4.

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imposes general restrictions on activities related to mining, such as the “construction, placement, extension, removal, or demolition” of a structure or submarine pipeline on or under the seabed, and the “removal of non-living natural material from the seabed or subsoil”, or “the disturbance of the seabed or subsoil in a manner that is likely to have an adverse effect on the seabed or subsoil”.³⁷

Section 20B of the EEZ Act prohibits the discharge of harmful substances from New Zealand structures or other structures, submarine pipelines, into the sea, or into the EEZ or onto the seabed beneath it, unless the discharge is a permitted activity or is authorised by a marine consent or under sections 21 to 23. Section 20C similarly restricts discharges of harmful substances from mining ships, and extends that jurisdiction to include discharges into or onto the continental shelf. Section 134 makes it an offence to breach sections 20B and 20C, and section 132 applies to breaches of section 20. The EEZ Act defines “owner” in just the same terms as the MTA, so that these criminal penalties will continue to apply to a broad range of licensees, managers, agents and employees.³⁸

There are differences in the defences available to offenders against section 20 and sections 20B or 20C. Section 133 - “Strict liability and defences” – asserts that it is “not necessary to prove that the defendant intended to commit the offence” of breaching section 20. The defendant may still claim two defences, reasonable necessity and absence of fault for certain intervening acts or events.³⁹ The reasonable necessity defence requires the defendant to show that the action or event was “reasonable in the circumstances” and was necessary “for the purposes of saving or protecting life or health, or preventing serious damage to property, or avoiding an actual or likely adverse effect on the environment or existing interests”.⁴⁰ The absence of fault defence allows the defendant to claim that the damage “resulted from an event beyond the control of the defendant, including natural disaster, mechanical failure, or sabotage”.⁴¹ The event must be one which “could not reasonably have been foreseen or been provided against by the

³⁷ Section 20(2)(d)-(e).

³⁸ Section 132(3)(b).

³⁹ Section 133.

⁴⁰ Section 133(2).

⁴¹ Section 133(2)(b).

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defendant”.⁴² Both defences require that the defendant must have taken adequate actions to mitigate or remedy the harm.

Section 134, relating to the breach of sections 20B and 20C, does not specifically state that these are strict liability offences. It simply provides that if the sections are breached, then the owners of the offshore installation, pipeline, the master and owner of the ship, the person in charge of and the person carrying out any mining activities, or the person who caused the damage if they have not otherwise been referred to, will have committed an offence.⁴³ Section 134I may then require that the person convicted must pay the costs incurred or associated with “removing, containing, rendering harmless, or dispersing any harmful substance”, as well as “removing or dispersing any waste or other matter to which the offence relates.”

The section 134A defences are copied directly from the MTA and differ from the defences under section 133.⁴⁴ The defendant may claim the defence of necessity, but action that caused the damage must have been a reasonable step to secure the safety of the ship or the offshore installation, or to save life. Unlike section 133, the defendant cannot argue that the discharge was necessary to avoid damage to the environment, which makes sense because it is the discharge that causes the damage. Section 134A also provides an absence of fault defence if the discharge occurred due to “damage to the ship or its equipment, to an offshore installation or its equipment, to a pipeline, or to any apparatus (other than a ship) used in connection with any mining activity”. The damage must have occurred without the “negligence or deliberate act of the defendant”, and all reasonable preventive steps must have been taken to stop or minimise the escape. It is not clear why this equipment damage defence differs from section 133, with its requirement that the damage be caused by “natural disaster, mechanical failure or sabotage”. The differences between the two sections are probably a consequence of the copy and pasting from the MTA, rather than from any specific intent to distinguish them from one another and the overall effect of each should be the same.

⁴² Section 133(2)(b).

⁴³ Section 134.

⁴⁴ Sections 134-134A.

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The EEZ Act's penalties differ significantly from the old penalties contained in the MTA.⁴⁵ If a natural person is convicted of an offence against the Act, they may be fined up to \$300,000 NZD, up from the MTA's maximum fine of \$200,000 NZD, and \$10,000 NZD for every day or part of every day that the offence continues. A person other than a natural person may be fined up to \$10m NZD. The most significant change, however, is that the EEZ Act no longer provides for sentences of imprisonment. Natural persons may be arrested and remanded in custody or on bail, so long as they are New Zealand citizens or residents, or with the Attorney General's consent, but there is no custodial penalty under the EEZ Act itself.⁴⁶ The omission may simplify sentencing, but it reduces the personal impact of offending, allowing corporate officers to treat a conviction for an environmental offence as just another business expense.

The Attorney-General has said of these penalties that:⁴⁷

We are satisfied that the offences described in the Bill are in the nature of regulatory offences and that the information to make out the defences are particularly within the realm of the individual's knowledge. However, we note that the maximum penalty of 12 months imprisonment for offences in the MTA Act is the upper limit of what we would consider reasonable for strict liability offences. The \$10 million maximum penalty for non-natural persons for offences in the EEZ Act is also above the normal penalty range for strict liability offences.

While this indicates the Attorney-General considered these penalties quite onerous, it considers environmental offences to be mere "regulatory offences". The intention should be to deter operators of hazardous activities from carelessness, not to lighten penalties to the point that crimes against the environment are treated as a mere cost of doing business.

Otherwise the EEZ Act replicates penalties that are standard in the MTA or the Resource Management Act 1991 ("RMA"), including:

- ordering a review of the offender's marine consent;⁴⁸

⁴⁵ Section 134H.

⁴⁶ Section 136A.

⁴⁷ Attorney-General *Marine Protection Legislation Bill* (Ministry of Justice, Wellington, N.Z. 2012) <www.justice.govt.nz> (accessed 6 January 2016) at [37].

⁴⁸ Section 134K.

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- ordering the offender to disgorge up to three times the value of any commercial gain which arose from the offence;⁴⁹
- that any fines be applied to defray the costs of “removing, containing or rendering harmless, or dispersing the harmful substance” or “repairing the damage resulting from the discharge”; and⁵⁰
- that the principal may be held liable for acts of its agents, including contractors, or employees.⁵¹

The EEZ Act also provides a system of enforcement orders and abatement notices, which is virtually identical to the system in the RMA.⁵² Enforcement orders may be used to prevent people from doing things which breach the EEZ Act, its regulations or marine consents, and to ensure that people comply with the law, or that they avoid, remedy, or mitigate any damage they may cause to the environment or existing interest.⁵³ This could include requiring the person to pay the costs incurred by such damage and “actual and reasonable costs” of the measures taken to avoid, remedy or mitigate any adverse effects on the environment, and the court has broad powers to craft the order to suit the occasion.⁵⁴

Generally what we see is that the EEZ Act has borrowed liberally from the MTA and the RMA, and has continued the tradition of holding people liable for oil removal clean-up costs that dates back to the Oil in Navigable Waters Act 1965. It will no longer impose sentences of imprisonment and instead introduces the penalty of a \$10m fine for corporate offenders. The system has been broadened to capture operators of offshore structures, but the offences are essentially the same as previously existed under the MTA. Since 1965, the geographical scope of New Zealand’s maritime laws has expanded somewhat, and the MTA and EEZ Act now reach to the fullest extent allowed by international law.

⁴⁹ Section 134L.

⁵⁰ Section 134M.

⁵¹ Section 135.

⁵² Sections 115-131; Compare with Resource Management Act 1991, s 314-325B discussed below.

⁵³ Section 115.

⁵⁴ Section 115(1)(c).

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4.2 *Discharges of Harmful Substances and the RMA*

The Resource Management Act 1991 (“RMA”) also prohibits and criminalizes the “Discharge of harmful substances from ships or offshore installations”, but only if they occur in New Zealand’s coastal marine area.⁵⁵ Coastal marine area includes the foreshore, seabed and coastal water, and the airspace above, and essentially refers to New Zealand’s territorial seas.⁵⁶ The government has passed the Resource Legislation Amendment Act 2017 amending elements of the EEZ Act’s marine discharge consent regime, but that appears to have had no effect on the penalties discussed here.⁵⁷

The primary offence is described by section 15B of the RMA. This states that “[n]o person may, in the coastal marine area, discharge a harmful substance or contaminant from a ship or offshore installation” into or onto the water, land or air. Discharges are allowed where they are “permitted or controlled by regulations made under this Act, a rule in a regional coastal plan, proposed regional coastal plan, regional plan, proposed regional plan, or a resource consent” or, if after “reasonable mixing”, the discharge is unlikely to have harmful effects. That there are offences regulating ship-source pollution in both the MTA and the RMA has been described as “unhelpful”, but that is the legacy of a bifurcated system which has historically considered shipping and land-based pollution to be separate issues.⁵⁸

Harmful substances are defined by the RMA and its regulations to include “crude oil, fuel oil, sludge, oil refuse, and refined petroleum products”, as well as a wide range of fossil fuel products as are listed in its Schedules.⁵⁹ The RMA defines a “contaminant” as any substance or energy that “changes or is likely to change the physical, chemical or biological condition of water”.⁶⁰ Discharge means to “emit, deposit, and allow to escape.”⁶¹ According to section 338, sections 15A, 15B and

⁵⁵ Resource Management Act, s 15B.

⁵⁶ Section 2.

⁵⁷ Resource Legislation Amendment Bill (101-1) 2015; Resource Legislation Amendment Act 2017.

⁵⁸ Bevan Marten “Limitation of Liability in Maritime Law and Vessel Source Pollution: A New Zealand Perspective” (2013) 2 New Zealand Law Review 199 at 205.

⁵⁹ Resource Management Act 1991, s 2(1); Resource Management (Marine Protection) Regulations 1998 (SR 1998/208), s 3.

⁶⁰ Section 2(1).

⁶¹ Section 2(1).

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15C (which prohibits dumping radioactive waste, or storing radioactive, toxic or hazardous waste in the coastal marine area) are all strict liability offences, and it is not necessary to prove intent.⁶² If the discharge is from an offshore installation, then the owner is deemed to be the responsible party, and “owner” is given the same meaning as in section 222(2) of the MTA.⁶³

Section 15A prohibits the dumping of waste or other matter from ships, aircraft or offshore installations in the coastal marine area, and also prohibits the dumping of entire ships, aircraft or offshore installations, “unless expressly allowed to do so by a resource consent.”⁶⁴ Dumping raises interesting questions, but the subject goes beyond the scope of this thesis. The point to be taken is that the owners of marine structures should plan to prevent pollution damage at all stages of the operation, from the initial exploration, through the production stages, and on to decommissioning and abandonment.

Every natural person who commits one of these offences is liable on conviction to imprisonment for up to two years, or to a fine of up to \$300,000, and every other person (meaning corporate entities and other artificial persons) can be fined up to \$600,000.⁶⁵ If the offence is a continuing one, then the penalty can include an additional \$10,000 per day or part of every day the offence continues.⁶⁶ Like the MTA and the EEZ Act, the RMA provides for additional penalties of up to three times the offender’s profit where the offence occurred in pursuit of commercial gain.⁶⁷ If it is the local authority which has laid the complaint, then the court must order that the fine is paid to the local authority with a ten per cent deduction to the Crown.⁶⁸ This ensures that the local authority will be at least partially reimbursed for any costs it suffers in dealing with the discharge.

⁶² Section 338.

⁶³ Sections 338(1B) and 2.

⁶⁴ Section 15A(2).

⁶⁵ Section 339(1); For examples of sentencing practice see *Northland Regional Council v Thalassic Steamship Agency Inc* DC Whangarei CRN208800160913, 28 June 2000; and *Canterbury Regional Council v Southern Storm Fishing Limited* DC Christchurch CRN3009015850, 18 June 2003.

⁶⁶ Section 339(1A).

⁶⁷ Section 339B; Compare with Maritime Transport Act, s 409.

⁶⁸ Section 342; David, “Marine Pollution”, above n 2, at 678.

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The RMA also appears to be the source of the defences under the EEZ Act's section 133, as section 341 allows offenders to utilise the same two general defences. The first allows the defendant to claim that the harmful discharge was "necessary for the purposes of saving life or protecting life or health, or preventing serious damage to property or avoiding an actual or likely adverse effect on the environment". The second excuses the defendant if the discharge was caused by circumstances "beyond the control of the defendant, including natural disaster, mechanical failure, or sabotage".

The guiding case on RMA sentencing criteria is *Machinery Movers Ltd v Auckland Regional Council*, and we recall that the court applied these principles in the MTA case of *Maritime New Zealand v Prosafe Production Services PTE Ltd*.⁶⁹ *Machinery Movers* involved the negligent spilling of various toxic chemicals into a stream in Glen Eden, Auckland, in 1992, that killed over a hundred ducks, also burning a number of local people who had entered the water to save the dying birds. *Machinery Movers Ltd* argued that sentencing should be guided by the former Water and Soil Conservation Act 1967, and that the appropriate range was for the fine to be up to \$20,000.⁷⁰ The Auckland High Court rejected their submission, saying that the RMA was "informed by a wholly different environmental philosophy which places far greater emphasis on environmental protection and introduces a much more stringent regime of penalties and punishment than did the 1967 Act."⁷¹ The RMA's sanctions were intended to be more stringent and the "levels of penalties under the 1967 Act [would] have no relevance under the RMA with its strong and pervasive emphasis on avoidance of adverse effects on the environment."⁷² The Court balanced the harm against the company's financial position, taking their remedial efforts into account and settled on a financial penalty which reflected the seriousness of the offence, but which would not drive the firm into liquidation. The Court was also critical of the suggestion that small operations should be treated more leniently, saying that harm was always a "matter of degree",

⁶⁹ *Machinery Movers Ltd v Auckland Regional Council* (1993) 1A ELRNZ 411, [1994] 1 NZLR 492, (1993) 2 NZRMA 661; *Maritime New Zealand v Prosafe Production Services PTE Ltd* DC New Plymouth CRI-2008-043-2447, 7 July 2009.

⁷⁰ At 13.

⁷¹ At 9.

⁷² *Machinery Movers Ltd v Auckland Regional Council HC Auckland* AP No. 23/93, 23 June 1993, (1993) 1A ELRNZ 411, [1994] 1 NZLR 492, (1993) 2 NZRMA 661 at 11.

where much depended upon the culpability of the offence and the extent of the damage.⁷³

In *McKnight v New Zealand Biogas Industries Ltd*, the New Zealand Court of Appeal considered the *mens rea* elements required for a strict liability offence. The Court explained that “[in] the ordinary and natural use of language, a person discharges something when he causes it to be discharged.”⁷⁴ Causing something to happen might be taken to mean that the person must do some positive and intentional act, but the Court of Appeal applied the reasoning of the Supreme Court of Canada in *R v City of Sault Ste Marie*.⁷⁵ There Dickson J said the terms “discharging, causing or permitting pollution” were closely interwoven into a single “generic” offence.⁷⁶ As well as “direct acts of pollution” and the “active undertaking of something which it is in a position to control”, this should include the defendant’s “passive lack of interference or, in other words, its failure to prevent an occurrence which it ought to have foreseen.”⁷⁷ Discharges could result from omissions as well as actions, but while there was no need to prove exactly how or why an oil emission occurred, there would still need to be some causal link between the person accused and the discharge.⁷⁸

Section 338 was tested most recently following the sinking of the *Rena* in *Maritime New Zealand v Daina Shipping Co*.⁷⁹ The District Court of Tauranga described the charge as one of strict liability, which “means the owner cannot escape liability in such circumstances.”⁸⁰ The Court considered earlier sentencing cases involving “public welfare offences”, and “the nature of the environment affected, the extent of the damage afflicted, the deliberateness of the offence and the attitude of the defendant.”⁸¹ Given that the offence was not deliberate, and the defendant had

⁷³ At 13.

⁷⁴ *McKnight v New Zealand Biogas Industries Ltd* (1994) 1B ELRNZ 263, [1994] 2 NZLR 664, [1994] NZRMA 258.

⁷⁵ *R v City of Sault Ste Marie* (1978) 85 DLR (3d) 161.

⁷⁶ At 184.

⁷⁷ At 184.

⁷⁸ *McKnight v New Zealand Biogas Industries Ltd*, above n 74, at 11; *Union Steam Ship Co of New Zealand Ltd v Northland Harbour Board* [1980] 1 NZLR 273.

⁷⁹ *Maritime New Zealand v Daina Shipping Company* DC Tauranga CRI-2012-070-1872, 26 October 2012.

⁸⁰ At [4].

⁸¹ At [6].

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shown remorse and attempted to mitigate the harm, and bearing in mind that the maximum possible sentence was \$600,000, the Court reduced the penalty from the prosecution's suggested starting point of \$450,000 down to \$300,000. This result could be contrasted with cases like *Maritime Safety Authority v Dong Won Fisheries Co Ltd*, where the errant company was fined \$20,000 and ordered to pay \$1.5m in clean-up costs after their vessel grounded and discharged 230,000 litres of diesel.⁸² The only reason the Court did not take a harder line in the *Daina Shipping Co.* case, for example by imposing continuing costs, was because "it is more important for co-operation and goodwill, that the difficulties associated with this are to be resolved in a satisfactory way."⁸³ If the *Rena's* owners and insurers had not been so forthcoming in paying the salvage costs, it would have been open to the Court to impose quite substantial removal costs.⁸⁴

Interestingly, fines or monetary penalties imposed for breaches of sections 15A, 15B or 15C, can be recovered by the distress and sale of the ship or its equipment, which raises the possibility that equipment related to offshore operations could be seized and sold.⁸⁵ If that equipment included items such as helicopters, buildings at on-shore support sites, and drilling equipment, then the recovery powers could be significant, which suggests that there could be good reason to add these powers to the MTA and the EEZ Acts.

Sentencing might also involve the Environment Court undertaking a review of the conditions of the person's resource consent, or granting an enforcement order under section 314. Enforcement orders give the court broad powers to require a person to stop doing, or not commence doing anything which might contravene the Act or any regulations, rules or resource consents, or which might be "noxious dangerous, offensive, or objectionable to such an extent that it has or is likely to have an adverse effect on the environment."⁸⁶ The person can be required to comply with their obligations under the Act and so forth, and might also be ordered to "avoid, remedy,

⁸² *Maritime Safety Authority v Dong Won Fisheries Co Ltd* DC Invercargill CRN-9025005390, 19 August 1999.

⁸³ At [17].

⁸⁴ For a description of the RMA's sentencing process, and a more complete list of relevant cases, see Paul David "Marine Pollution", above n 2, at 700–701.

⁸⁵ Resource Management Act, s 339C.

⁸⁶ Section 314(1)(a).

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or mitigate any adverse effect on the environment caused by or on behalf of that person”.⁸⁷

Enforcement orders can also require the guilty party to pay for “any [actual and] reasonable costs and expenses which that other person has incurred or is likely to incur in avoiding, remedying or mitigating any adverse effect” on the environment.⁸⁸ These “actual and reasonable costs” can include “the costs of investigation, supervision, and monitoring of the adverse effect on the environment”, as well as the direct costs of avoidance, remediation and mitigation.⁸⁹ Any person may apply for an enforcement order, so long as they use the prescribed form, but only the consent authority or the Minister may apply to the Environment Court for orders requiring the resource consent holder to “adopt the best practicable option to avoid or minimise any adverse effect of the discharge to which the consent or rule relates.”⁹⁰

The RMA’s prohibition on discharges of harmful substances, with its system of enforcement orders and penalties, appears to create a tougher regime against the discharge of harmful substances than that of the MTA. If offshore petroleum operators choose to undertake drilling operations inside the 12nm limit, they would then be subject to the RMA’s resource consent process as it is administered by the local authority, with possible fines of up to \$600,000 for body corporates that discharge harmful substances, but also the possibility that individuals may be imprisoned for up to 2 years. Operators in the EEZ now face the prospect of a maximum fine of \$10m NZD for the same unlawful discharge but not a custodial sentence. Operators must drill where the oil is to be found, but all things being equal, it would make more sense from a legal liability standpoint to drill outside of the 12nm limit and avoid even the remotest possibility of a lengthy prison sentence.

⁸⁷ Section 314(b)-(c).

⁸⁸ Section 314(1)(d).

⁸⁹ Section 314(2).

⁹⁰ Section 316.

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4.3 *The Crown Minerals Act 1991 and Good Industry Practice*

The EEZ Act and the MTA both use a definition of owner which includes “the person having any right, privilege, or licence to explore for or exploit minerals in connection with which the installation is being, has been, or is to be used”.⁹¹ To be completely accurate, the EEZ Act’s definition refers to a “person having *a* right”, while the MTA uses the phrase, a “person having *any* right”, but that should not make any real difference in the way that ownership is ascribed. Every CMA permit must specify the names of the permit operator and of all permit participants, and each permit holder is then considered jointly and severally liable to perform the permit holder’s obligations.⁹² The Crown Minerals (Petroleum) Regulations 2007 (“CMA regulations”) also require any application on behalf of two or more persons, must identify an operator and declare each person’s interest in the permit.⁹³ The permit holder’s obligations come from four specified Acts, the Health and Safety at Work Act 2015 (“HSWA”), the MTA, the RMA and the EEZ Act as its four specified Acts, and it is an offence under section 33 to fail to comply with the specified Acts.⁹⁴ It is an offence to carry out mining activities without a permit, punishable by imprisonment for up to two years or a fine of up to \$400,000 NZD, and \$20,000 for every day or part of every day the offence continues.⁹⁵

Essentially, permit applicants must satisfy all the relevant regulatory agencies under those specified Acts that their systems are sufficient to meet health and safety and environmental requirements.⁹⁶ The key phrase here is that permit holder or holders must perform their activities “in accordance with good industry practice”.⁹⁷ The CMA takes this point seriously, as is evidenced by the fact that it is an offence if the permit holder fails to comply with the conditions of its permit, or those in the CMA or the HSWA and their regulations, or to follow good industry practices.⁹⁸

⁹¹ Maritime Transport Act, s 222(2)(b); Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act, s 132(3)(b).

⁹² Crown Minerals Act, s 25(3) and 33.

⁹³ Crown Minerals (Petroleum) Regulations 2007, Schedule 2, Part 1, cls 1-2.

⁹⁴ Crown Minerals Act, s 2.

⁹⁵ Section 101.

⁹⁶ Section 29A.

⁹⁷ Section 33(3).

⁹⁸ Sections 33 and 100.

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The Minerals Programme for Petroleum 2013 outlines the government's management policies regarding Crown minerals, and details the procedures and provisions for implementing those policies.⁹⁹ The minerals programme outlines the permitting regime and explains how permits are allocated, rules for compliance, and how they may be revoked for any failure to carry out operations. It cites section 2(1) of the CMA's definition of "good industry practice" as "acting in a manner that is technically competent and at a level of diligence and prudence reasonably and ordinarily exercised by experienced operators engaged in a similar activity".¹⁰⁰ The standard reflects international norms. For example, the EU's Offshore Safety Directive also remarks that best practice means subjecting mobile offshore drilling units to independent safety and environmental verification according to recognized industry codes.¹⁰¹

Maritime NZ and the Ministry for the Environment published "Environmental Best Practice Guidelines for the Offshore Petroleum Industry" in 2006. Operators must conduct their activities to the standard of a "reasonable and prudent operator" and apply "best practicable options to minimise or prevent adverse effects on the environment."¹⁰² As the guidelines were not backed up by any sanctions or penalties for failure to comply, they have been criticised as being nothing more than self-regulation.¹⁰³ Barry Barton has explained that although the Minister could theoretically revoke an operator's permit, the concept of good oilfield practice is "uncertain and difficult to enforce."¹⁰⁴ Bay et al. also point out that the CMA was primarily concerned with the efficient allocation and of rights to prospect, explore and mine for Crown-owned minerals in order to maximise the Crown's revenues.

⁹⁹ New Zealand Petroleum and Minerals *Minerals Programme for Petroleum 2013* (Ministry of Business, Innovation and Employment, 2013).

¹⁰⁰ At 27.

¹⁰¹ Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons [1994] OJ L 164/3, Recital (31)-(32); International Maritime Organization 2009 *MODU code: code for the construction and equipment of mobile offshore drilling units* (London, 2010)

¹⁰² Maritime New Zealand and Ministry for the Environment *Environmental Best Practice Guidelines for the Offshore Petroleum Industry* (Ministry for the Environment, Wellington, N.Z., 2006) at [32] and [36].

¹⁰³ De Wit "A Gaping Abyss: Environmental Regulation of New Zealand's Oceans", above n 2, at 10.

¹⁰⁴ Barry Barton "Offshore Petroleum and Minerals: Plugging Gaps in the Present Framework" [2011] NZLJ 211 at 216.

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The CMA requires good industry practice, but it was not designed to regulate environmental impacts.¹⁰⁵

Any failures to abide by the practices expected of a “reasonable and prudent operator” could affect the availability of defences, however. For example, the reasonable necessity defence only applies if the defendant’s actions were reasonable. Similarly, absence of fault assumes that the event was unforeseeable. The failure to follow proper best practice would tend to undermine the defendant’s claims that their actions were reasonable, or that they had taken precautions against foreseeable eventualities.

4.4 The Health and Safety at Work Act 2015

There is also a close relationship between “good industry practice” and the HSWA. Under the HSWA employers have a general duty to protect “workers and other persons against harm to their health, safety, and welfare by eliminating or minimising risks arising from work or from prescribed high-risk plant”.¹⁰⁶ Their primary duty is to ensure that their worker’s health is not put at risk, “as far as is reasonably practicable”, and that includes providing and maintaining “safe plant and structures” and “safe systems of work”.¹⁰⁷ Other duties may be found in the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 and the Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016. The regulations impose a general duty on the employer to ensure that the installation is “safe for any person on or near the installation” and that any work is carried out safely.¹⁰⁸ The permit operator or drilling contractor must take all reasonably practicable steps to “prevent the uncontrolled release of hazardous liquids, vapours, or gases” and the “uncontrolled accumulation of hazardous vapours or gases”, especially in confined spaces.¹⁰⁹ Failure to comply may make an

¹⁰⁵ John Bay, Robert Makgill and James Willis “Exploration and Development within the EEZ - offshore oil and gas” (New Zealand Law Society Continuing Legal Education, March 2014) at 7.

¹⁰⁶ Health and Safety at Work Act 2015, s 3(a).

¹⁰⁷ Section 36.

¹⁰⁸ Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016, reg. 8.

¹⁰⁹ Regulation 11.

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individual liable to a fine not exceeding \$10,000, and other persons will be liable to a fine not exceeding \$50,000.¹¹⁰ The same penalties apply if the permit operator or drilling contractor breaches its duties to ensure the safe disposal of waste petroleum, to take precautions with ignition sources, or to prepare and review major accident prevention policies.¹¹¹

New Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 were developed in response to the 2010 Pike River Coal Mine disaster, but they have since been updated by the Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016.¹¹² WorkSafe's High Hazards Unit is responsible for monitoring and ensuring compliance with the regulations and safety cases. The operator has the primary responsibility to ensure that the well is "designed, constructed, commissioned, equipped, operated, maintained, modified, suspended and abandoned" so that the "risks to the health and safety of any person from the well or anything in it, or from strata to which the well is connect, are as low as is reasonably practicable."¹¹³ They must carry out a full and ongoing assessment of the subsurface conditions and any hazards underground formations may pose.¹¹⁴ The well must be designed so that activities can be safely suspended or abandoned, every part of the well must be composed of suitable materials, and there is a duty to ensure that "suitable well control equipment and associated control systems are provided to protect against the uncontrolled release of petroleum."¹¹⁵ The regulation appears to be comprehensive in accounting for a wide range of possible incidents, but its penalties are weak, with fines not exceeding \$10,000 for an individual or \$50,000 for any other person.

All criminal penalties, including those in the EEZ Act, the MTA, the RMA and the HSWA, will be meted out according to the general sentencing principles in the Sentencing Act 2002.¹¹⁶ The Sentencing Act 2002 requires the court to consider the necessity of holding the offender to account for the harm they have caused, to

¹¹⁰ Regulation 11(2).

¹¹¹ Regulations 12-16.

¹¹² Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016 (2016/8)

¹¹³ Health and Safety at Work (Petroleum Exploration and Extraction) Regulations, reg 56.

¹¹⁴ Regulations 59-60.

¹¹⁵ Regulations 61-63.

¹¹⁶ Health and Safety at Work Act, s 151.

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provide for the interests of the victim, to pay reparations, and the sentence's deterrent effects.¹¹⁷ A reparations report will take account of the type of harm, and the value of any property damaged, emotional harm and consequential losses, the offender's financial capacity and the maximum amount they may be able to pay.¹¹⁸ Aggravating factors include the "extent of any loss, damage or harm resulting from the offence", any previous convictions, the person's safety record and any aggravating factors, and whether the person has offered amends or taken or proposed any remedial action "in relation to the circumstances of the offending".¹¹⁹

Employers may also face individual criminal liability, for failing in their duty to take reasonable precautions to protect their employees when dealing with dangerous things under sections 150A and 156 of the Crimes Act 1961.¹²⁰ Section 150A requires proof that the "omission or unlawful act is a major departure from the standard of care expected of a reasonable person to whom that legal duty applies or who performs that unlawful act." The bar is set quite high, but it should also be noted that any "omission without lawful excuse to perform or observe any legal duty" is grounds for prosecution for culpable homicide.¹²¹

4.5 *Civil Liability and Joint Operating Agreements*

Offshore petroleum extraction operations are often complex and expensive, with multiple parties subjected to various joint operating agreements and upstream service contracts.¹²² The Crown Minerals Act 1991 takes this practice into account, and is designed so that every party to a joint venture is required to be a permit

¹¹⁷ Sentencing Act 2002, s 7.

¹¹⁸ Sections 34-35.

¹¹⁹ Sections 9 and 10.

¹²⁰ RS Rudman *New Zealand Employment Law Guide* (Wolters Kluwer; CCH New Zealand Ltd, Auckland, NZ, 2015) at 423.

¹²¹ Crimes Act 1961, s 160.

¹²² Alexander Black and Hew Dundas "Joint Operating Agreements: An International Comparison from Petroleum Law" (1992) 8 J. Nat. Resources & Envtl. L. 49 at 50; See also Mohammad Alramahi *Oil and Gas Law in the UK* (Bloomsbury Professional, Haywards Heath [England], 2013) at 70.

participant, and so that one of the participants must be designated as the operator. Because Joint Operating Agreements (“JOAs”) operate as a sort of private constitution, they seek to reallocate liability by agreement, and that can raise interesting questions concerning the interaction between private and public law.

Even the largest oil companies prefer to hedge their bets by entering into JOAs, believing quite rightly that a quarter interest in four projects is safer than sole ownership of one.¹²³ These agreements may be divided into two broad categories: service contracts between operators, or between operators and state-owned national oil companies, and JOAs between the operator and their co-venturers.¹²⁴ The chances are that any venture to explore for oil or gas offshore will be unsuccessful, and the legal structure must allow the participants to set off losses against taxable income, and allow the parties to carry on if one or more chooses to withdraw at any stage.¹²⁵ Standardized JOAs and service contracts are therefore only the beginning point of negotiations between the various parties to any complicated venture.

As T. N. McFadgen put it, the JOA is almost solely the “creature of the lawyer’s pen not of judges’ or legislators’ good (and misguided intentions). Therein lies its attractiveness, and its failings.”¹²⁶ Black and Dundas define a JOA as an agreement between “two or more natural or legal persons combining property and expertise to carry out a single business enterprise in which they have a joint proprietary interest, a joint right to control and a sharing of profits and losses.”¹²⁷ The JOA therefore provides a private constitution, allocating rights, duties and obligations between the participants.¹²⁸ The usual elements of the JOA are:¹²⁹

1. community interest in the object of the undertaking;

¹²³ Alramahi, *Oil and Gas Law in the UK*, above n 122, at 66.

¹²⁴ Toby Hewitt “Who is to Blame? Allocating Liability in Upstream Project Contracts” (2008) 26 *JERL* 177 at 179–180.

¹²⁵ T.N. McFadgen “Why a Joint Venture?” in Elizabeth Kelly (ed) *Mineral and Petroleum Development in New Zealand: the Commercial Framework: a series of papers* (Energy and Natural Resources Law Association of New Zealand, Wellington, 1987) at 3-4.

¹²⁶ At 2.

¹²⁷ Alexander Black and Hew Dundas “Joint Operating Agreements: An International Comparison from Petroleum Law” (1992) 8 *J. Nat. Resources & Env'tl. L* 49 at 5.

¹²⁸ Sharon Wilson “Contractual allocation of risk in upstream oil and gas projects” [2008] *EnergySource* 3 at 3.

¹²⁹ Alexander Black and Hew Dundas “Joint Operating Agreements”, above n 122, at 50; See also *Beck v Cagle* 46 Cal App 2d 152 (1941) at 161.

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2. pro-rata right to direct and govern the conduct of each other with respect thereto;
3. share to the extent of their respective percentage interest in the losses or profits;
4. close, possibly fiduciary, relationship between the parties.

No operator would accept unlimited liability for all the consequences or losses that may affect the successful completion a project. Carolin Schramm et al. explain the various contracting strategies parties to other kinds of oil and gas project contracts undertake in order to allocate tasks, risks and responsibilities.¹³⁰ There are four possible risk management strategies contained in Engineering, Procurement and Construction (“EPC”) contracts, Engineering, Procurement and Construction with Long Lead Items (“EPC with LLIs”) contracts, Engineering, Procurement, Construction and Management (“EPCM”) contracts, and Progressive Lump Sum (“PLS”) contracts. These create a continuum of risk management, from EPC contracts obliging the contractor to undertake almost all the risks in delivering a completed facility for a confirmed price at a guaranteed date, to EPCM contracts which leave much of the risk and the overall control of the venture in the owner’s hands. EPC with LLIs accept that some items may not be delivered on time, and PLS contracts allow the venture to evolve via a progressive sequence of contracts.

A mining permit, such as those New Zealand operators must obtain under the CMA, typically will not concern itself with the rights and obligations of that permit holders owe to one another, but simply treats all permit participants as jointly and severally liable for carrying out any statutory obligations.¹³¹ JOAs typically seek to share liability between participants on a proportional basis, or for specific occurrences up to a pre-set capped amount, and this may conflict with any statutorily imposed joint and several and unlimited liability.

As was mentioned above, one of the participants to the JOA, usually the one with the greatest percentage share in the venture, will be appointed to be the operator. The operator has overall control of the venture and the authority to act as agent for

¹³⁰ See Carolin Schramm, Alexander Meißner and Gerhard Weidinger “Contracting strategies in the oil and gas industry” (2010) 1 Pipeline Technology 33.

¹³¹ Michael PG Taylor and Sally M Tyne *Taylor and Winsor on Joint Operating Agreements* (2nd ed, Longman, London, 1992) at xix.

all the participants in any negotiations and legal disputes.¹³² Each participant is liable for any offences committed, or obligations incurred, by the operator to the same extent as if he, she or it had incurred that offence or obligation. The operator is not expected to gain a profit or suffer a loss merely by reason of their position. Like any other participant, it will share profits and losses severally in proportion to its percentage ownership in the venture. The other participants are expected to actively defend the operator, and to indemnify it for any additional costs it might face in representing the venture, even if this sometimes results in legal squabbles over matters such as contributions to legal fees. The operator only loses this right to be indemnified if it is guilty of some act of gross negligence or wilful misconduct. Strangely, while the MTA allows shipping agents to enter into contracts of indemnity with shipowners, for any civil or criminal proceedings, including under the MTA, the RMA or the EEZ Act, but it does not explicitly extend the same right to agents of owners and operators of marine structures.¹³³

4.5.1 Indemnity Clauses: From *Piper Alpha* to the *Deepwater Horizon*

JOAs use various indemnity clauses to allocate liability to the party in the best position to prevent, absorb or insure against the loss.¹³⁴ Exemption clauses may be separated into three categories: indemnification or ‘knock for knock’ clauses, exemption or excluded loss clauses, and pre-set limitation of liability clauses.¹³⁵ Knock for knock clauses, also known as ‘mutual hold harmless’, or ‘bury your own dead’ clauses, require the participant to own their own damage, without attempting to pass responsibility for third party damage claims on to their fellow co-venturers, or to innocent third parties.¹³⁶ The arguments in favour of knock for knock clauses

¹³² See Alramahi, *Oil and Gas Law in the UK*, above n 122, at 74–78.

¹³³ Maritime Transport Act 1994, s 464 states that: “This section applies to a person (the **agent**) who enters into an agreement to act as the agent in New Zealand of the owner, charterer, manager, or operator of a ship.” (emphasis as in original) However, this section is listed in Part 30: “Miscellaneous provisions applying to this Act generally”, and it could be argued that the section should apply to agents of owners of marine structures and persons carrying on marine operations as well.

¹³⁴ Alramahi, *Oil and Gas Law in the UK*, above n 122, at 142.

¹³⁵ At 140.

¹³⁶ Toby Hewitt “Who is to Blame? Allocating Liability in Upstream Project Contracts” (2008) 26 JERL 177 at 182; Chidi Egbochue “Reviewing ‘knock for knock’ indemnities following the Macondo Well blowout” (2013) 7(4) Constr. Law Int.

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is that are said to allow for speedy compensation for injured workers or their grieving families, and reduce the duplication of insurance coverage.¹³⁷

Knock for knock indemnity clauses were tested following both the *Piper Alpha* and the *Deepwater Horizon* disaster. The 1988 North Sea *Piper Alpha* disaster was the deadliest, most expensive, and possibly most legally complex accident ever to occur in the North Sea.¹³⁸ The entire platform was destroyed by an explosion, resulting in losses of \$3.304 billion USD, killing 167 men and injuring another 59.¹³⁹ Lord Cullen's damning review of safety practices on the *Piper Alpha* prompted a shift from prescriptive to a goal-setting approach to health and safety regulations in the United Kingdom, and around the world.¹⁴⁰

The subsequent 2002 "London Bridge" House of Lords judgment saw 147 separate actions against 24 different contractors, who between them employed 134 of the 167 men killed.¹⁴¹ The House of Lords quoted a United States Court of Appeals Judge who said that:¹⁴²

... in the complicated offshore drilling environment with its intricate divisions of responsibility and countless contractors and subcontractors, a simple slip-and-fall can turn into a multiparty morass of contribution cross-claims, third- and fourth-party defendants, reciprocal indemnity agreements, and the ever popular warranties of workmanlike performance. The plaintiff in this litigation has long since settled and departed but the other parties have chosen to remain on the field of battle to contest the appropriate share of the plaintiff's settlement to be borne by each of them.

This rather undercuts the argument that knock for knock clauses necessarily ease the burden on the injured or killed worker and their grieving family. The House of

¹³⁷ Alramahi, *Oil and Gas Law in the UK*, above n 122, at 148.

¹³⁸ Hewitt, "Who is to Blame? Allocating Liability in Upstream Project Contracts"; *Caledonia North Sea Ltd v London Bridge Engineering Ltd* [2002] SC117 (HL) at 119.

¹³⁹ Hewitt at 177.

¹⁴⁰ The Hon Lord W Douglas Cullen *The public inquiry into the Piper Alpha disaster* (HM Stationery Office, London, 1990); John Paterson "Occupational Health and Safety Law: the Oil and Gas Industry" in Karen E Makuch and Ricardo Pereira (eds) *Environmental and Energy Law* (Wiley Blackwell, Chichester, UK ; Malden, MA, 2012) 225.

¹⁴¹ *Caledonia North Sea Ltd v London Bridge Engineering Ltd* [2002] SC 117 (HL) 117 at 119.

¹⁴² *Caledonia North Sea Ltd v London Bridge Engineering Ltd; Fontenot v Mesa Petroleum Co* [1986] 791 F.2d 1207 at 1209.

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Lords upheld the party's right to reallocate their liability by contract. It held that the operators right to indemnity is only excluded when it has committed some negligence or breach of statutory duty that was the sole cause of the death or injury, otherwise each party assumed the "ultimate responsibility for compensating its own employees regardless of fault."¹⁴³

The *Deepwater Horizon* disaster again raised the issue of indemnity clauses, this time to consider their effect on statutory penalties. BP Exploration and Production Inc, as the operator and primary leaseholder of the block within which the Macondo well was drilled, was contractually required to indemnify rig-owner Transocean for any pollution damage claims stemming from incidents under the water, even if the damage was due to Transocean's own negligence, or even gross negligence.¹⁴⁴ BP denied that the indemnification applied to strict liability statutory penalties, however, and that would have excluded the massive fines BP faced under the Clean Water and Oil Pollution Acts for the discharge of 4.9 million barrels of oil. The Court disagreed and argued that the balance should be in favour of freedom of contract, saying that:¹⁴⁵

... competent persons have the utmost liberty of contracting, and therefore agreements voluntarily and fairly made are upheld. ... Although a contract can be invalidated on the grounds that it violates public policy, courts are instructed to apply this principle with caution and only in cases plainly within the reasons on which that doctrine rests, because the phrase 'public policy' can be vague and variable.

As there was no explicit prohibition on contractual indemnity in the Oil Pollution Act 1990 ("OPA"), and such indemnities were even provided for in certain sections, the Court held that contractual indemnities for even gross negligence were not inconsistent with the OPA.¹⁴⁶ This only applied to compensatory damages, however, as punitive damages cannot be avoided by private agreement. Likewise, Clean Water Act 1972 environmental remediation costs could be reallocated by mutual

¹⁴³ *Caledonia North Sea*, above n 141, at 119.

¹⁴⁴ *In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010 MDL 2179* (ED Lou 2014) <www.laed.uscourts.gov> (accessed 3 July, 2015) at 3.

¹⁴⁵ At 15.

¹⁴⁶ At 18.

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agreement, but civil penalties under that Act, which are intended to punish and deter, could not.¹⁴⁷

4.5.2 Examples of JOA Indemnity Clauses

The classic example of the standard ‘knock for knock’ form is the “2012 Mutual Indemnity And Hold Harmless Deed”, which may be found on the websites of Leading Oil & Gas Industry Competitiveness (“LOGIC”), and Oil and Gas UK (“OGUK”). Specifically, the signatories agree to:¹⁴⁸

... be solely responsible for and shall defend, indemnify and hold harmless the other Signatories and the other members of their respective Groups against all Claims arising from, out of, or relating to the Services in connection with:

- (i) personal injury to or sickness, disease or death of Personnel of the Indemnifying Signatory or any other members of its Group; and
- (ii) loss of, recovery of, or damage to any Property of the Indemnifying Signatory or any other members of its Group; and
- (iii) Consequential Loss suffered by the Indemnifying Signatory or any other members of its Group.

This entails more than passively accepting any losses which may befall the signatory, they must also actively defend other signatories and may be required to contribute to the legal costs of any defence.

Joint operators in Australian States and Territories have traditionally accepted that participants will share proportionate liability for any claims in torts or contract law, or for penalties relating to statutory and regulatory offences, and typically use the Australian Mining Petroleum Law Association’s Model Petroleum Joint Operating Agreement (“AMPLA JOA”).¹⁴⁹ John Grace, the author of the AMPLA JOA, argues that traditional proportional liability sharing approach has been re-examined following the large-scale disasters of the *Montara*, *Deepwater Horizon* and the 2006 Sidoarjo mud volcano in Java. Grace says that the shift to strict liability in

¹⁴⁷ Federal Water Pollution Control Act (Clean Water Act), Pub L No 114-38, 33 USC § § 1251-1377 (1972); “In re: Oil Spill by the Oil Rig ‘*Deepwater Horizon*’ in the Gulf of Mexico, at 19–23.

¹⁴⁸ 2012 Mutual Indemnity and Hold Harmless Deed, at cl 2.1.

¹⁴⁹ See Barbara McDonald “Proportionate Liability and the Allocation of Contractual Risk” in Caroline Johnston (ed) *AMPLA Yearbook 2009* (AMPLA Limited, Sydney, Australia, 2009) 162.

Australian legislation following these recent drilling catastrophes may impact on the traditional proportional approach to liability, and almost certainly will interfere with an operator's ability to obtain environmental and civil liability insurance.¹⁵⁰

4.6 *Concluding Remarks*

New Zealand's law has a long history of providing for regulatory penalties for causing harmful oil spills, going back to the Petroleum Act 1937 and the Oil in Navigable Waters Act 1965. Landowners were also entitled to be reimbursed for damage to land, but the Public Works Act 1928 envisaged a system where compensation would be decided by a compensation court according to the market value of that land, but only if agreement could not be reached between the parties. The MPA also contained penalties intended to ensure that New Zealand operators abided by oil spill prevention policies required by international laws such as OILPOL, the London Dumping Convention, and then MARPOL 73/78. These penalties have then been incorporated into the MTA and the RMA, and since 2015, to the EPA under the EEZ Act. In order to consider the effect of this transfer in responsibility, it was necessary to compare the criminal penalties in the MTA with those in the EEZ Act.

The MTA's criminal penalties for the discharge of harmful substances were generally well designed. If there could have been one improvement, it would have been to have added the term "blowout" to ensure that seabed eruptions of oil were covered under the term "discharge", but perhaps that reflected the international laws' concerns with operational and deliberate discharges rather than with drilling accidents. Nevertheless, the MTA cast the same wide net to capture owners and operators in criminal liability as it did in civil liability. This would implicate not

¹⁵⁰ John Grace "The AMPLA Model Petroleum Joint Operating Agreement" in Susan Timbs and Peter de Zwart (eds) *AMPLA Yearbook 2011* (AMPLA Limited, Melbourne, Australia, 2011) 204 at 219–220. Since these incidents, Australia enacted the Offshore Petroleum and Greenhouse Storage Legislation Amendment (Miscellaneous Measures) Act 2010, which now holds titleholders strictly liable for a number of offences.

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only the primary owner and operators, but the rules of agency and vicarious liability could also capture joint venture participants and employers for the wrongful acts of their company officers, agents and employees. For example, corporate entities would be held vicariously liable for any damage caused by directors acting within the scope of their employment.

The MTA's fines were quite stiff, they included triple damages for any profits earned in the wrongdoing, and there was the distinct possibility that, if the crime was sufficiently serious, the offenders could see sizeable prison time. The impact of that on an executive's personal life and reputation would have to be taken seriously. However, now that harmful discharges are to be regulated by the EPA, custodial sentences are off the table. Fines for individuals have slightly increased, and a corporate body may be fined up to \$10m NZD, but the EEZ Act no longer provides for custodial sentences.

Saying that, the RMA still gives local authorities the power to prosecute persons dumping or discharge harmful substances in the coastal marine area without permission. Discharge means to "emit, deposit and allow to escape."¹⁵¹ These are strict liability offences, and the owner of the installation may be liable on conviction to imprisonment for up to two years, to a fine of \$300,000 or \$600,000 if the owner is a corporate entity. The RMA allows for triple damages for profits, and 90% of the fine must be paid to the local authority to provide for the costs of clean-up. Further, the operator may lose its resource consent. The defendant may claim that the discharge was necessary to save life or prevent damage to property or the environment, or that the discharge was caused by circumstances beyond its control. *Machinery Movers* emphasized that the RMA was intended to be punitive, *McKnight* held that a person discharged something when they caused it to be discharged, and *Newman* reiterated that the RMA's absolutely liability regime was intended to be a harsh regime.

This is not the end of the story, however. A failure to carry out activities according to "good industry practice" could result in the revocation of the operators CMA

¹⁵¹ Section 2(1).

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mining permit, and that could doom an otherwise lucrative venture. The Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016 especially require that the employer must ensure that it prevents the accumulation or release of hazardous liquids, vapours or gases, and this could easily apply to an uncontrolled well blowout. Worksafe's High Hazards Petroleum and Geothermal team will carry out regular inspections to ensure that the operator complies with their safety case. The fines for a failure to safely design or operate a well are minimal, but the employer could be made to pay substantial and prolonged reparations if the employee is injured. The Sentencing Act 2002 provides aggravating and mitigating factors, and the court will use a reparations report will take account of the interests of the victim, the offender's financial capacity, and sentence's deterrent effects. Employers may also face individual criminal liability under sections 150A and 156 of the Crimes Act 1964 for failing to take reasonable precautions to protect their employees when dealing with dangerous things. A custodial sentence may be appropriate.

None of the criminal financial penalties are significant compared to the multi-million dollar damage suits that could result from a major offshore accident. For example, even EEZ Act's maximum fine of \$10m NZD would only have covered approximately one quarter of the government's bill for cleaning up the *Rena*. The fact that they could be levied against company officers, managers, agents and employees personally, and against principals and employers by the laws of agency and vicarious liability, is what gives them their true impact. Add to this the prospect of facing actual prison time for failing to prevent an employee's death, and the owners and operators of offshore activities in New Zealand waters do have some very real incentives to ensure that their activities are carried out safely.

5 Mandatory Insurance and Offshore Installations

Mandatory insurance is one of the key features of the CLC and Fund Convention regime. The basis of the CLC Convention 1969 was that shipowners would bear the sole burden of strict liability for the costs of oil pollution damage and preventive measures, so long as that liability was limited, and so long as the limits of liability were calculated according to the availability of insurance. Without the guarantee of insurance, the entire edifice would crumble. Shipowners would have every incentive to evade or deny liability, daring oil spill victims to prove their claims, and thrusting an insupportable compensation burden onto the Fund.

New Zealand's offshore petroleum liability regime may have obtained its basic terms and conditions from the CLC and Fund Convention regime, but the structure of that liability could not be more different. Instead of channelling strict liability to a single shipowner, liability is spread widely to capture as many offshore installation "owners" and operators as possible. While that liability is unlimited, the MTA's mandatory offshore installation insurance regulations, or Marine Protection Rules: Part 102 ("MPR Part 102"), set a minimal insurance level that had not been updated since it was introduced in 1996.

At the time of writing, however, the Ministry of Transport ("MOT") had completed a consultation process reviewing a proposal to substantially increase the MPR Part 102 insurance requirement. This has resulted in the creation of an entirely new financial assurance regime. This is an exciting development as it is the first time that a New Zealand government department has given serious consideration to the question of liability and compensation for offshore oil pollution. How would such a regime deal with issues of quantifying and defining unlimited liability for pollution damage, and what lessons, if any, would it take from the CLC and Fund Conventions?

5.1 *Marine Protection Rules: Part 102 Prior to 2014*

We recall that minimum offshore installation insurance regulations were first promised under the Marine Pollution Act 1974.¹ Yet it was not until 1998 that the owner of every regulated offshore installation was required to provide “a current certificate of insurance in force issued or recognised by the Director”.² That contract for insurance or other financial security must provide “public liability coverage of a kind and scope suitable to meet the owner’s potential liability under Part XXV of the Act, and is for a sum not less than 14 million international Monetary Fund Units of Account”.³ Part 26A was inserted into the MTA in October of 2013, and it is telling that the MPR was not immediately amended to reflect that fact.⁴ However, insurance was originally supposed to cover all the costs of liability under Part 26A, including liability to the Crown to marine agencies for cleaning up pollution under section 385B, and liability for the costs of pollution damage and preventive measures under section 385C.

MPR Part 102 was a positive step, but 14m IMF units of account is currently equivalent to approximately \$26m NZD. That figure is not arbitrary, but is the same level that appears in two 1976 Protocols to the CLC and Fund Conventions 1969/1971.⁵ It is not clear what reasoning went into the decision to set the minimum mandatory insurance at a level that was very soon to become obsolete, as Maritime NZ only received six submissions after advertising the rule in the New Zealand Gazette in 1996.⁶ The responses came from HIH Winterthur Insurance, the New Zealand Fire Service, New Zealand Shipping Federation and Coastal Tankers Ltd,

¹ Marine Pollution Act 1974, s 45; See Chapter Three – New Zealand’s Marine Pollution Legislation at 3.1.3.

² Marine Protection Rules Part 102 - Certificates of Insurance (effective 30 December 2004), rule 102.7.

³ Rule 102.8.

⁴ Maritime Transport Amendment Act 2013 (2013 No. 84), s 62.

⁵ Protocol to the International Convention on Civil Liability for Oil Pollution Damage of 29 November 1969 16 ILM 617 (opened for signature 19 November 1976, entered into force 8 March 1981); Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage of 18 December 1971 16 ILM 621 (Opened for signature 19 November 1976, entered into force 8 March 1981).

⁶ “Marine Protection Rules” (5 September 1996) 106 *New Zealand Gazette* 2715 at 2754.

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the Auckland Regional Council and Union Shipping.⁷ None of the submitters recognised that the IOPC Fund would not accept claims for pollution damage caused by offshore oil and gas activities, or even that it might be necessary to ask how much damage an offshore oil well blowout could cause, and that it might be necessary to raise the minimum insurance requirement beyond an already obsolete minimum.

How could offshore installation owners meet the mandatory insurance requirements? Offshore oil and gas operators are generally able to obtain first party property insurance, business interruption and loss of production income, D&O insurance, which covers personal liability claims directed against company directors and officers, environmental, marine, comprehensive general liability, and employer and worker compensation insurance.⁸ In addition, the Operator's Extra Expense ("OEE") and Energy Exploration and Development ("EED 8/86") forms include cover for Control-of-Well, Redrilling/Restoration/Recompletion, Seepage and Pollution/Clean-up and Contamination, and Care, Custody and Control (Third Party Equipment).⁹ Neither form covers third party liability claims, which will have to be addressed by the operators and contractors' general third party liability insurance. In the case of the *Deepwater Horizon*, Transocean maintained \$560m worth of hull insurance to secure the possible loss of the rig, it had \$1bn USD of workers casualty insurance, and \$150m worth of contingent OEE insurance to cover

⁷ Letter from John Nagle (Marine Underwriter at HIH Winterthur) to Maritime Safety Authority regarding Maritime Protection Rules - Part 102 (9 October 1996); Letter from Leonce Jones (Assistant Adviser at the New Zealand Fire Service) to Maritime Safety Authority regarding Maritime Rules - Comments on Drafts (20 September 1996); Letter from Paul Nicholas (Manager Administration at the New Zealand Shipping Federation) to Maritime Safety Authority regarding Marine Protection Rule - Part 102 - Certificates of Insurance (22 October 1996); Letter from Stuart Scott (Fleet Manager at Coastal Tankers Limited) to Maritime Safety Authority regarding Submission on Part 102 MEP Rules - Insurance (29 October 1996); Letter from J D McPetric (Regional Maritime Coordinator of Auckland Regional Council) to Maritime Safety Authority regarding Draft Marine Protection Rules - Part 102 Certificates of Insurance (30 September 1996); Letter from DE McPherson (General Manager - Marine at Union Shipping) to Maritime Safety Authority regarding Marine Protection Rules Part 102 and Part 130B Maritime Rules Part 20 (29 October 1996).

⁸ Kyriaki Noussia "Environmental Pollution Liability and Insurance Law Ramifications in Light of the *Deepwater Horizon* Oil Spill" in Juergen Basedow, Ulrich Magnus and Rudiger Wolfrum (eds) *The Hamburg lectures on Maritime Affairs, 2009 & 2010* (Springer, New York, 2012) at 4; See also L.B. Kellner "Insurance Coverage Issues for Third-Party Businesses and Municipalities with Losses due to the Oil Rig Explosion in the Gulf of Mexico" [2010] Dickstein Shapiro LLP Insurance Coverage Alert 1.

⁹ Sam Salvato Jr and Larry Flak "Part 3: Insurance" John Wright Co <www.jwco.com> (accessed 23 February 2017).

pollution damage claims.¹⁰ Halliburton, the well service contractor, and Cameron Iron Works, which supplied the BOP, maintained third party liability insurance of \$600m USD and \$500m USD respectively.

One example of insurance in the Asia Pacific area is that XL Group Insurance's "Pollution and Remediation Legal Liability Policy".¹¹ The XL Group's policies, including the Environmental Impairment Liability Insurance in the Asia Pacific region, provide cover against claims for bodily injury and property damage, and for natural resource damages as that term is defined in the EU's Environmental Liability Directive. The ELD was designed to cover a very broad conception of damage to the environment itself. It follows that the New Zealand owners of offshore installations would be able to find a range of insurance products to cover their liability for property and environmental damage claims, but they might have to rely upon their parent companies' general liability insurance to cover other third party claims.

5.1.1 Mandatory Insurance, Market Crises, Adverse Selection and Moral Hazard

Before examining amendments to New Zealand's financial assurance regime, it would be helpful to consider the implications of mandatory insurance in more detail. Mandatory insurance is key to the proper functioning of the CLC and Fund Conventions as they apply to oil pollution damage from ocean going oil tankers. However, it has been very difficult to develop a comprehensive international offshore oil and gas industry liability and compensation regime in large part because of resistance to the idea of mandatory insurance requirements. Theoretically, insurance provides a free market solution to the problem of regulating and compensating damage caused by hazardous industries. Mandatory insurance provides an important source of delegated legislation, in that the insurance industry's terms and conditions enter into caselaw, and become as much

¹⁰ Kristel De Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands) <www.ec.europa.eu> (accessed 6 June 2015) at 56.

¹¹ XL Group Insurance "Pollution and Remediation Legal Liability Policy: Freedom of Services" <www.xlgroup> (accessed 2 July 2015).

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a part of the legal framework as any regulation passed by Parliament.¹² Insurers are able to monitor the insured, using large actuarial databases which allow insurers to classify risks before underwriting them, and to verify claims and separate the valid from the spurious, while deductibles, exclusions and experience ratings can incentivise private parties to reduce their risks.¹³

Adverse selection describes the dilemma that the persons most in need of insurance are those insurers would least like to do business with.¹⁴ Insurers are able to monitor and accurately price risk by their use of the Law of Large Numbers. The law takes advantage of the statistical tendency that, the more times a particular type of incident occurs, the closer the expected cost will come to the average cost.¹⁵ Historical accident data can be modelled to predict future losses, and that makes the calculation of insurance premiums a matter of simple arithmetic. While this technique may work very well at predicting the expected costs of millions of motor vehicle accidents, it cannot account for the one in ten thousand industrial disaster. The irony is that it is because large scale environmental disasters are so few and far between that they pose such a serious risk for the insurance industry.¹⁶ Mandatory insurance provisions may then undermine insurers' ability to exclude the riskiest operators, undermining their ability to segregate risk, and that may drive the conditions that lead to market collapse.¹⁷

The consequence is that insurance markets can only operate with the insurance industry's willing cooperation, As Colin Mackie explained, insurers fled the United States environmental insurance market in the 1980s after they became alarmed at the increased liability costs for historic pollution damage created by the CERCLA

¹² Tom Baker and Jonathan Simon *Embracing Risk: The Changing Culture of Insurance and Responsibility* (University of Chicago Press, Chicago, 2010) at 13.

¹³ Omri Ben-Shahar and Kyle Logue "Outsourcing Regulation: How Insurance Reduces Moral Hazard" (2012) 111 *Michigan Law Review* 197 at 199.

¹⁴ See George L Priest "The Current Insurance Crisis and Modern Tort Law" [1987] *Yale Law Journal* 1521, at 1540–1541; See also Lucas Bergkamp, Nicolas Herbatschek and Suriya Jayanti "Financial Security and Insurance" in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) at 126.

¹⁵ Priest "The Current Insurance Crisis and Modern Tort Law", at 1540.

¹⁶ Bergkamp, Herbatschek and Jayanti "Financial Security and Insurance", at 120–121.

¹⁷ Priest, "The Current Insurance Crisis and Modern Tort Law", at 1552–1553.

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Superfund legislation.¹⁸ George Priest argued that the insurance crisis was not due to CERCLA alone, but because the judiciary expanded expensive third party product tort liability.¹⁹ As insurance markets unravelled and premiums skyrocketed, providers of products as various as medical vaccines, intrauterine devices, wine, aircraft, sports equipment, and services such as obstetrics, ski lifts, commercial trucking and day care, were forced to withdraw from the market altogether.²⁰ Commentators have seen similar difficulties attending the rollout of the United States' Affordable Care Act.²¹ Insurers seek to identify and exclude the highest risk operators, and that can make it very difficult for operators in the most hazardous industries to obtain mandatory insurance.²²

Faure suggests that third party insurance negates the efficiency benefits of first party insurance, as it opens the door to potentially endless claims from unknown and unknowable persons.²³ The insurer must have confidence that the insured will behave as carefully with that insurance cover as they would without, otherwise risk models lose their predictive power, and again the market may collapse.²⁴ Third parties can bring unprovable claims, in the knowledge that the polluter is fully covered by insurance. Alternatively, the fear is that operators will only take as much care as is necessary to prevent their cover being voided, and have perverse incentives to lie and cheat to obtain and retain that cover. We recall the coffin ships of old, incidents where unscrupulous shipowners would send over-insured but worthless hulks to near certain doom.²⁵ This is the problem of moral hazard.

Kenneth Arrow introduced the concept of moral hazard to neoclassical economics in the 1960s, with his insight that medical insurance increases demand for medical

¹⁸ Bergkamp, Herbatschek and Jayanti, at 120–121; Colin Mackie “The EU Environmental Liability Directive: A Commentary (Book Review)” (2014) 16 *Env. L. Rev.* 81 at 83.

¹⁹ George Freeman “Tort Law Reform: Superfund/RCRA Liability as a Major Cause of the Insurance Crisis” (1985) 21 *Tort & Ins. L.J.* 517.

²⁰ Priest, “The Current Insurance Crisis and Modern Tort Law”, above n 15, at 1521.

²¹ Editorial Board “Why Obamacare Failed” *Chicago Tribune* (9 September 2016) <www.chicagotribune.com>.

²² Priest, “The Current Insurance Crisis and Modern Tort Law”, above n 15, at 1552–1553.

²³ Michael Faure “Environmental Damage Insurance in Theory and Practice” in T. Swanson, *An Introduction to the Law and Economics of Environmental Policy: Issues in Institutional Design* (Elsevier Science Ltd, 2002) at 291.

²⁴ At 288.

²⁵ Gordon Jackson “Marine Insurance Frauds in Scotland 1751-1821” (2004) 35 *JMARLC* 431.

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care.²⁶ Steven Shavell describes it as “the tendency of insurance protection to alter an individual’s motive to prevent loss.”²⁷ The tendency arises in situations of informational asymmetry, when the insured has knowledge of circumstances or events that could invalidate their insurance coverage but keeps those material facts from the insurer.²⁸ As Scrutton LJ put it in *Rozanes v Bowen*:²⁹

As the underwriter knows nothing and the man who comes to him to ask him to insure knows everything, it is the duty of the assured, the man who desires to have a policy, to make a full disclosure to the underwriters without being asked of all the material circumstances, because the underwriters know nothing and the assured knows everything. This is expressed by saying that it is a contract of the utmost good faith – *uberrima fides*.

New Zealand’s Marine Insurance Act 1908 implicitly provides for the possibility of moral hazard, that it requires that the assured must disclose all material facts to the insurer, and any failure to make such a disclosure is grounds for avoiding the contract.³⁰ The MTA likewise preserves the insurer’s right to avoid claims resulted from the insured’s wilful misconduct.³¹

One way that the operator can circumvent the difficulties of a mandatory insurance regime is to self-insure. In the case of the *Deepwater Horizon*, BP, which owned 65% of the well and 25% of the overall venture, self-insured \$700m USD of its OPA mandatory insurance requirements through its \$6bn USD captive self-insurance company, Jupiter Insurance Ltd.³² This would allow BP to set its own terms and conditions, to avoid the extra expenses of deductibles and premiums, or the possibly devastating impact of exclusionary wilful misconduct or gross negligence clauses. Aside from the significant tax advantages, self-insurance allows

²⁶ Kenneth Arrow “Uncertainty and the Welfare Economics of Medical Care” (1963) 53 *The American Economic Review* 941 at 961; Tom Baker “On the Genealogy of Moral Hazard” (1996) 75 *Texas L.Rev.* 237 at 244.

²⁷ Steven Shavell “On Moral Hazard and Insurance” (1979) *November QuartJEcon* 541 at 541.

²⁸ Mahito Okura “The Relationship between Moral Hazard and Insurance Fraud” (2013) 14 *The Journal of Risk Finance* 120.

²⁹ *Rozanes v Bowen* (1928) 32 *LI L Rep* 98 at 102; See Robert M Merkin, C Nicoll and Raoul P Colinvaux *Colinvaux’s Law of Insurance in New Zealand* (Thomson Reuters, Wellington, NZ, 2014) at 145–146.

³⁰ *Marine Insurance Act 1908*, s 18.

³¹ *Maritime Transport Act 1994*, s 385J(2).

³² Kyriaki Noussia “Environmental Pollution Liability and Insurance Law Ramifications in Light of the Deepwater Horizon Oil Spill” in Juergen Basedow, Ulrich Magnus and Rudiger Wolfrum (eds) *The Hamburg lectures on Maritime Affairs, 2009 & 2010* (Springer, New York, 2012) at 154; Kristel De Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands) <www.ec.europa.eu> (accessed 6 June 2015) at 56.

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the company to control the outcome of claims and to avoid disadvantageous arbitration, while satisfying and lowering the costs of mandatory insurance requirements.³³ Captive companies must satisfy the laws pertaining to insurance companies in its domicile, and in New Zealand that means the Insurance (Prudential Supervision) Act 2010 and its regulations. Insurance providers must be licensed and must carry out their business in prudent manner, including taking all practicable steps to comply with a risk management programme and employing an actuary.³⁴ However, captive insurers are not required to prove their current financial strength rating by an approved rating agency.³⁵ The downside of self-insurance for the regulator, and the public in general, is that it must rely upon another layer of regulation and penalties to ensure that the captive company carries out its business in a prudent manner, and manages its risk objectively and independently from the interests of its parent. The upside is that the self-insured company does not need to pay premiums, the administration and actuarial costs are reduced, and that creates fewer liquidity problems. Indeed, this aspect makes them especially suitable for expensive and unpredictable environmental disasters, where the lack of actuarial data may make it impossible to calculate a fair premium.³⁶

The moral of the moral hazard/adverse selection argument is that society benefits when risk is left to the free market, and that insurers should be free to exclude the riskiest customers, or at least to charge premiums and create terms and conditions appropriate to that risk. Adverse selection and moral hazard arguments are hostile to mandatory insurance regulations, because of the fear that the insurance industry will not be able to carry the bill for strict and unlimited environmental damage liability, and that it will therefore fall upon the polluter themselves. The subtext of the moral hazard/adverse selection argument is that there should be no strict environmental liability laws and no mandatory insurance regulations.

³³ John Nevius and Phillip England “Managing Mining Risks using a Captive Insurance Company” (2013) 214 E & MJ 36 at 36.

³⁴ Insurance (Prudential Supervision) Act 2010, ss 15, 20, 73 and 76.

³⁵ Section 60.

³⁶ De Smedt et al, *Civil Liability and Financial Security for Offshore Oil and Gas Activities*, at 221.

To see how the marine insurance industry assesses and excludes uninsurable clients, it is necessary to review some of the methodologies that classification societies, engineers and regulators use to anticipate and prevent disasters.

5.1.2 Assessing Insurance Risk

Marine insurers depend upon classification societies to provide them with information about the vessels and offshore structures they have underwritten, including whether or not they conform to private classification standards and to international public laws regarding safety at sea.³⁷ Protection and Indemnity associations, or P&I Clubs, provide the bulk of marine insurance to their members, and they carry out regular inspections and assessments incorporating both operational aspects and human factors.³⁸ Under threat of highly publicised tanker disasters, the larger oil companies have established their own vetting systems, and appoint their own in-house tanker surveyors.³⁹

Serious offshore oil accidents in UK and Norwegian waters also led regulatory authorities to cooperate with oil companies in developing Quantitative Risk Assessment methodologies.⁴⁰ These focus on matters such as crew safety in the event of a capsizing or explosion, dropped object and diving risks, and the modelling of hydrocarbon releases.⁴¹ This information could then be used as part of an Environmental Impact Assessment in support of an application for a licence to drill. The downside for the oil company is that the EIA can contain information that could be used by its opponents, as was the case when a recent application by Anadarko in New Zealand was challenged in court on the grounds that the EPA had failed to consider all the consequences of the company's own oil spill modelling.⁴²

³⁷ Philippe Boisson "Classification Societies and Safety at Sea" (1994) 18 *Marine Policy* 363 at 363–364.

³⁸ At 372.

³⁹ At 373.

⁴⁰ Audun Brandsæter "Risk Assessment in the Offshore Industry" (2002) 40 *Safety Science* 231 at 232.

⁴¹ At 234.

⁴² Environmental Resources Management *Deepwater Taranaki Basin Single Exploration Well Environmental Impact Assessment* (Anadarko NZ Taranaki Company, 0124819R01, 2013); "Greenpeace: EPA made 'fundamental error' with Anadarko oil permit" *3news.co.nz* (9 December 2013) <www.3news.co.nz> (accessed 28 January, 2016).

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Quantitative Risk Assessment helps to ensure that risks have been made As Low As Reasonably Practicable (“ALARP”), that risks for various accident scenarios are dealt with in a cost effective matter, adverse trends are identified, and that critical safety equipment and procedures are in place where needed.⁴³ Undesired outcomes include blowouts, process leaks, riser/pipeline leaks, capsize, fire and explosions, transport accidents, and even structural failure.⁴⁴ However, Det Norske Veritas, the pre-eminent Norwegian classification society, advise that such lists, no matter how exhaustive, can never include every possible risk. As Aven and Vinnem point out, the danger with the use of these systems and methodologies is that they can give rise to a check-box mentality.⁴⁵ It is still incumbent upon crew and management to follow procedures and to avoid shortcuts.

Engineers address three basic categories of risk analysis when designing platforms: strategic, qualitative design and operative risk.⁴⁶ Strategic risk analyses use event tree, fire and explosion models to assess typical risk scenarios. Qualitative design analyses concentrate on the system’s specific technical elements, such as the blowout preventer or mud system. Operative risk analyses use risk matrices, such as probability trees and Bayesian networks, to identify hazards or events and determine the qualitatively acceptable risk of each occurring.

According to Vatn and Haugen, risk analysis can fail in three ways: by not accounting for the possibility of a particular scenario, by identifying the possibility but not the extent of the risk of an accident, or finally, if no risk analysis is done at all.⁴⁷ The *Gullfaks C* and the *Deepwater Horizon* incidents both happened because risks were either underestimated or not identified. Both could have been avoided if management had made better use of hazard logs to identify and integrate evolving data into decision making. Wang et al. observe that QRA methodologies focus primarily on equipment and structural failures, paying insufficient attention to the

⁴³ Audun Brandsæter “Risk Assessment in the Offshore Industry”, above n 40, at 235-236.

⁴⁴ At 244-246.

⁴⁵ Terje Aven and Jan Erik Vinnem “On the Use of Risk Acceptance Criteria in the Offshore Oil and Gas Industry” (2005) 90 *Reliability Engineering and System Safety* 15 at 17.

⁴⁶ Jørn Vatn and Stein Haugen “On the Usefulness of Risk Analysis in the Light of *Deepwater Horizon* and *Gullfaks C*” in Eirik Albrechtsen and Denis Besnard (eds) *Oil and Gas, Technology and Humans: Assessing the Human Factors of Technological Change* (Ashgate, Farnham, Surrey, England ; Burlington, VT, 2013) 81 at 83.

⁴⁷ At 96.

human and organizational errors that cause most offshore fires and explosions.⁴⁸ The humans did “not_comply_with_instruction” and the organizational factor of “inefficient_emergency_plan” were the two issues most likely to contribute to a fire on board an offshore platform.⁴⁹

Insurers also use fault and event-tree analysis developed over decades in the weapons and nuclear industries, to anticipate and intercept catastrophic chains of events.⁵⁰ Bayesian networks graphically represent more complex possibilities, and, unlike event-trees, they do not rely upon arbitrary or historical probabilities, but can include fuzzy variables, such as “very unlikely” to “very likely”.⁵¹ However Rees and Sharp argue that insurers have not considered the potential scope of offshore oil pollution incidents because there had not been a significant oil well blowout since the Santa Barbara incident in January 1969.⁵² Both event trees and Bayesian networks rely upon historical experience to a certain extent, and if anyone had asked the experts of the possibility of a *Deepwater Horizon* before October 2010, he or she would have said “very unlikely”.

James Reason proposes a Swiss cheese model that shows how hazards may penetrate gaps in safety barriers, either because human, technical, organisational or environmental factors, that allow the operator to thread the needle to disaster.⁵³ As he says, more complex systems have more layers of defence. This makes it less likely that a complex disaster will have a single cause, rather, various unlikely combinations of factors reveal latent defects in these defensive barriers, defects that could have laid dormant for long periods of time and are only revealed by investigators in the aftermath of a catastrophe.⁵⁴ The very complexity of the defence

⁴⁸ Yan Fu Wang and others “Quantitative Risk Analysis of Offshore Fire and Explosion Based on Analysis of Human and Organizational Factors” [2015] *Mathematical Problems in Engineering* 1 at 1.

⁴⁹ At 7.

⁵⁰ Martin Katzman “Pollution Liability Insurance and Catastrophic Environmental Risk” (1988) 55 *The Journal of Risk and Insurance* 75 at 85.

⁵¹ J Ren and others “A Bayesian Network Approach for Offshore Risk Analysis through Linguistic Variables” (2007) 21 *China Ocean Engineering* 371.

⁵² Andrew Rees and David Sharp, *Drilling in Extreme Environments: Challenges and Implications for the Energy Insurance Industry* (Lloyd’s Class of Business and Exposure Management Departments, London, UK, 2011). at 29.

⁵³ See James Reason “Achieving a Safe Culture: Theory and Practice” (1998) 12 *Work & Stress* 293; *Deepwater Horizon Study Group Final Report on the Investigation of the Macondo Well Blowout* (UC Berkeley Center for Catastrophic Risk Management 2011) at 75.

⁵⁴ Reason, “Achieving a Safe Culture: Theory and Practice”, at 295-296.

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system means that no one person is able to see the risk unfolding in its entirety, while at the same time, all assume that safeguards are fool proof.

The *Deepwater Horizon* fits the Swiss cheese model, as according the National Commission on the BP *Deepwater Horizon* Oil Spill and Oil Drilling, the “Macondo blowout was the product of several individual missteps and oversights by BP, Halliburton, and Transocean, which government regulators lacked the authority, the necessary resources, and the technical expertise to prevent.”⁵⁵ If the immediate cause of the accident was the Halliburton’s failure to construct a reliable primary cement job to contain hydrocarbon pressures at the bottom of the well, then BP contributed by its decision to employ a long string well design, and by failing to inform Haliburton of its decisions to make changes to the well design that made the proper construction of the cement plug even more critical. The well abandonment plan called for contractors to carry out a cement bond log to confirm the integrity of the surface plug, but BP helicoptered its contractors off the platform without carrying out those tests and the cement plug failed shortly afterwards.⁵⁶ BP Well Site Leaders and Transocean’s crew then misread the negative pressure test that would have signalled the failure of the cement plug, and once the blowout was underway, the last ditch activation of the blowout preventer (“BOP”) was unable to prevent the outflow of gas onto the rig floor, and an explosion soon followed.

The *Deepwater Horizon* Study Group argued that the disaster represents a profound industry failure to recognise the riskiness of deepwater drilling, or the consequences of failure, and that both the operator and regulator were guilty of “compliance mentality.”⁵⁷ Boyer and Porrini argue that regulators may have specialist knowledge and centralized command structures, which makes them more appropriate decision-makers than courts with a general jurisdiction but little directly relevant expertise.⁵⁸ However, this only makes regulators more vulnerable to regulatory capture.

⁵⁵ National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling “Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling: Report to the President” (January, 2011) <www.oilspillcommission.gov> at 115–127.

⁵⁶ At 38.

⁵⁷ David Pritchard and Kevin Lacy *Deepwater Well Complexity - The New Domain* (*Deepwater Horizon* Study Group 2011 Working Paper, Centre for Catastrophic Risk Management, UC Berkeley, 2011) at 3.

⁵⁸ Marcel Boyer and Donatella Porrini “The Choice of Instruments for Environmental Policy: Liability or Regulation” in Timothy Swanson (ed) *An Introduction to the Law and Economics of*

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The capture problem was exemplified by the *Deepwater Horizon* after the United States Department of the Interior identified irreconcilable conflicts of interest in the BP's relationship with the Minerals Management Service ("MMS"). The report confirmed rampant corruption, illicit drug and alcohol abuse, sex scandals, rubber stamping of dangerous drilling practices and an overall "culture of ethical failure" at MMS.⁵⁹ The National Counsel's Report to the President found that MMS had been compromised right from its inception by incentives that were designed to prioritise revenues over health and safety or environmental concerns.⁶⁰ Regulators and regulated alike subverted oversight procedures, while poorly trained officials left decisions about crucial aspects of drilling operations to BP, at least one of which directly contributed to the disaster.⁶¹

BP asked MMS for permission to set the cement plug need for temporary abandonment at the unprecedented depth of 3,300 feet, when the maximum depth according to MMS regulations was 1000 feet below the mud line. Despite the fact that neither BP nor any other operator had ever set a plug so deep before, and the decision to do so was a significant change from the permitted plan, the MMS official approved the request less than 90 minutes later. In the aftermath MMS was disbanded and separated into three federal agencies to disconnect the collection of oil and gas royalties from the roles of safety and resource management regulator.⁶² The ultimate cause of the *Deepwater Horizon* then was not the failure of the best available technology or risk management procedures. A long history of generally safe and profitable offshore petroleum operations led to a cosy and complicit relationship between BP and the MMS. Compounded by poor regulatory design, this resulted in a general willingness to disregard vital safety procedures and standard industry practices.

Environmental Policy: Issues in Institutional Design (JAI, Amsterdam; Boston, 2002) 245 at 272.

⁵⁹ US Department of the Interior: Office of Inspector General *Investigative Report* (2010) at 1–4.

⁶⁰ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling "Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling: Report to the President" (January 2011) <www.oilspillcommission.gov> at 56; Alex Wawryk "The Regulation of Oil Spills from Offshore Installations" in Kim Talus (ed) *Research Handbook on International Energy Law* (Edward Elgar, Cheltenham, UK, 2014) at 564–570.

⁶¹ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, "Deep Water", above n 60, at 120–127.

⁶² Bureau of Ocean Management "The Reorganization of the Former MMS" About BOEM <www.boem.gov> (accessed 13 May 2015).

If this account sits oddly in a chapter on mandatory insurance, it only goes to show that even the best risk assessment and safety procedures can be defeated by complex systems. BP avoided the additional expense and oversight of an insurer by self-insuring the venture through its captive vehicle Jupiter Insurance Ltd. This made it all the more important that the regulatory body was competent and provided with the resources, powers and incentives to do its job, a job that should not have been left to the operator. Indeed, one of the recommendations from the National Commission was that insurance underwriters should play a more active role in auditing and evaluating, and possibly excluding, participants from entry into offshore drilling activities.⁶³

5.2 *Reviewing MPR Part 102: New Zealand's New Financial Assurance Regime*

The MOT's review of MPR Part 102 was long overdue, especially given the level of public concern over the prospect of ever more intense offshore petroleum activities. If the thrust of the earlier petroleum expert reports was on promises of economic growth, the early stages of the financial assurance review aimed to assure the public that offshore petroleum activities were already well regulated. The argument was that offshore petroleum operators already had to prove their financial capabilities and would be subject to oversight from multiple regulatory agencies. The implication was that it was unnecessary to institute any more stringent pollution damage laws, however, the financial security requirements referred to were mostly concerned with ensuring that the permitted operator could carry out its oil spill contingency and discharge management plans, and had little to do with compensating for pollution damage as that term is defined by the MTA.

The Ministry of Economic Development first addressed New Zealand's offshore installation insurance requirements shortly after the *Deepwater Horizon*.⁶⁴ However, that report argued that existing health and safety regulations effectively

⁶³ National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling "Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling: Report to the President", at 286.

⁶⁴ Atkins, Holm, Joseph and Majurey Ltd *Comparative Review of Health, Safety and Environmental Legislation for Offshore Petroleum Operations* (19465) (Ministry of Economic Development, 2010).

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prevent accidents, and stated that it was “beyond the scope of this Review to evaluate detailed questions concerning liability and insurance but these are clearly important issues in the event of a major accident or oil spill.”⁶⁵ Maritime NZ’s report entitled “Deepwater Horizon: Lessons for New Zealand” also asserted that offshore owners were only obliged to pay for “the actual response and oil recovery operations, not restoration of the environment”.⁶⁶ Yet the MTA’s term “pollution damage” clearly includes claims for loss of profits from impairment of the environment and the reasonable costs of reinstating the environment, so it is not clear why Maritime NZ would have made that assertion at the time.⁶⁷

The MOT sought Cabinet’s approval to review the offshore petroleum financial security regime in 2014, explaining that New Zealand’s 2009 Petroleum Action Plan had called for just such a review.⁶⁸ The MOT’s “Consultation Document: Increasing the minimum financial assurance requirement for offshore installations” (“Consultation Document”) recommended that the MPR Part 102’s minimum financial security requirement be increased to 162 million International Monetary Fund units of account, or approximately \$300m NZD.⁶⁹ It was the Consultation Document that stated that “at separate stages of the regulatory regime, multiple agencies oversee the financial security regime that aims to ensure operators are able to financially meet their proposed activities and subsequent legal obligations”.⁷⁰ New Zealand’s Crown minerals estate is managed by Petroleum & Minerals (“NZ P&M”), which also insisted that offshore petroleum activities are subject to oversight from six government agencies and 16 regional councils, and that its permitting process will take account of all aspects of the applicant’s financial performance, its financial position, its cash flow and funding streams, and the costs

⁶⁵ At 41-42.

⁶⁶ Maritime New Zealand *Deepwater Horizon: Lessons for New Zealand* (Maritime New Zealand, 2011) at 31; It should be noted that this report was not made widely available to the public, and a redacted version was only obtained by the author following an Official Information Act request.

⁶⁷ See Maritime Transport Act, s 385A.

⁶⁸ Ministry of Transport *Improving the Financial Security Regime for Offshore Installations* (Ministry of Transport, 2014) at [15].

⁶⁹ New Zealand Ministry of Transport *Consultation Document: Increasing the minimum financial assurance requirement for offshore installations* (May, 2014) <www.transport.govt.nz> (accessed 26 June 2015); At the time of writing, 26 June 2015, one SDR equals 2.04 NZD, so this approximates to \$331m NZD.

⁷⁰ At 3; See also Ministry of Transport *Improving the Financial Security Regime for Offshore Oil and Gas Installations* (Ministry of Transport 2016).

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of the work programme.⁷¹ While there are a number of agencies that review offshore operators' financial capabilities, it is only Maritime NZ that is specifically concerned with offshore installation's pollution damage insurance.

Offshore petroleum operators are subject to permitting requirements under the Crown Minerals Act 1991 as outlined in the Crown's Minerals Programme for Petroleum.⁷² Under the CMA, offshore petroleum operators must apply to NZ P&M for a Petroleum Prospecting Permit, a Petroleum Exploration Permit or a Petroleum Mining Permit.⁷³ Operators must demonstrate their financial capability to carry out the proposed work programme, and that their systems will "meet the health and safety and environmental requirements of all specified Acts for the types of activities proposed under the permit."⁷⁴ The MOT has stated elsewhere that operators can demonstrate their financial capability using "net worth; future cash flows; loans from banks and other financial institutions; directors' loans; parent company support (deed of guarantee); and the issue of additional share capital."⁷⁵ In addition, the EPA or the regional council can require applicants to provide a financial bond or to obtain public liability insurance of a "specified value" as a condition of the marine consent.⁷⁶

MPR Part 131: Offshore Installations – Oil Spill Contingency Plans and Oil Pollution Prevention Certification gives effect to MARPOL 73/78 and the International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 ("OPRC") and obliges operators to provide emergency response and oil spill contingency planning.⁷⁷ It replaced MPR Part 200: Offshore Installations –

⁷¹ New Zealand Petroleum & Minerals *Who does what in NZ's offshore waters?* (New Zealand Government, 10 February 2016) <www.nzpam.govt.nz> (accessed 4 August 2016); New Zealand Petroleum & Minerals *Guidance for the Determination of Financial Capability* (NZ P&M, June 2017).

⁷² New Zealand Petroleum and Minerals *Minerals Programme for Petroleum 2013* (Ministry of Business, Innovation and Employment, 2013); See also Ministry for the Environment *Supporting information for the exposure draft of proposed regulations for exploratory oil and gas drilling under the EEZ Act* (Ministry for the Environment, Wellington, NZ, 2013) at 14-17.

⁷³ Crown Minerals Act 1991, s 23.

⁷⁴ Section 29A(2)(d); The specified Acts include the Health and Safety at Work Act 2015 and the Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016.

⁷⁵ Ministry of Transport *Improving the Financial Security Regime for Offshore Oil and Gas Installations* (Ministry of Transport 2016) at 4.

⁷⁶ Section 63.

⁷⁷ International Convention for the Prevention of Pollution from Ships and its Protocol of 1978 (MARPOL 73/78) 12 ILM 1319 (1973), 17 ILM 546 (1978) (opened for signature 2 November

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Discharges after the regulation of the harmful discharges from offshore activities was transferred to the EPA on 31 October 2015. Every operator of an offshore installation must obtain written approval for its Oil Spill Contingency Plan, and if that identifies a risk of an oil well blowout, then the operator must also provide a Well Control Contingency Plan, including evidence of its financial capacity to undertake any proposed plans.⁷⁸ The operator's Well Control Contingency Plan must provide details of the actions it will take to "stop, minimise or mitigate the effects of a spill".⁷⁹ That includes determining what action to take, how to prevent the spill escalating, stopping the spill at its source, identifying the consequences of any action for safety or the environment, and determining whether the spill can be contained or cleaned up using the resources available. MPR Part 102 did not require the owner of the installation to provide well control insurance, however, and the mismatch between the permitting requirements and the mandatory insurance requirements would become a priority during the financial assurance review.⁸⁰

5.2.1 MPR Part 102 Consultation Document Submissions

The Ministry of Transport ("MOT") received at least four responses to the Consultation Document. These were from Shell New Zealand ("Shell"), Local Government New Zealand, OMV New Zealand Limited ("OMV"), and the Petroleum Exploration & Production Association of New Zealand ("PEPANZ"). The four submitters were most concerned that Maritime NZ had changed its policy towards civil liability for pollution damage and that their existing insurance arrangements would no longer be sufficient. As OMV explained, it had been using

1973, entered into force 2 October 1983); International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC Convention) 1891 UNTS 78 (opened for signature 30 November 1990, entered into force 13 May 1995).

⁷⁸ Marine Protection Rules Part 131: Offshore Installations - Oil Spill Contingency Plans and Oil Pollution Prevention Certification (31 October 2015), rule 131.21; Maritime New Zealand *Well Control Contingency Plan Guidance Note (Version 2)* (Maritime New Zealand, 2 December 2015) at 8; See above discussion of oil spill contingency planning, Ministry for the Environment *Supporting information for the exposure draft of proposed regulations for exploratory oil and gas drilling under the EEZ Act* (Ministry for the Environment, Wellington, NZ, 2013) at 16.

⁷⁹ MPR Part 131, Schedule, s 2; and Ministry of Transport *Improving the Financial Security Regime for Offshore Oil and Gas Installations* (Ministry of Transport, 2016) at 4.

⁸⁰ Ministry of Transport *Improving the Financial Security Regime for Offshore Oil and Gas Installations* (Ministry of Transport 2016) at [32].

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the same products as its United Kingdom affiliates, which had been sufficient until.⁸¹

... about August 2013, when MNZ materially revised its approach in 2013, without prior notice and consultation with industry, effectively ruling out insurance as a means of satisfying the financial insurance requirements. MNZ's new approach includes a much broader application of the definition of potential liabilities under the Act, so as to extend beyond the boundaries of the standard forms of insurance available to operators and owners of offshore installations in NZ.

Likewise, Shell complained that the New Zealand rules substantially differed from the available insurance options that were geared to major international offshore liability regimes.⁸² OMV agreed that the insurance minimum was inadequate, but suggested that the operator's financial security requirements should be assessed on a case-by-case basis, with risk modelling that accounted for the smaller scale of New Zealand operations.⁸³ The United Kingdom's OPOL mutual indemnity agreement between operators provided a good model, as it only required operators to provide "evidence of financial assurance to cover for direct loss or damage associated with a potential pollution event, not for indirect costs as currently being applied by MNZ."⁸⁴

The most substantial response came from petroleum industry association, PEPANZ. Its suggestion was that each different type of activity should be assigned a different risk profile, and that the financial security requirements should be scaled appropriately.⁸⁵ PEPANZ submitted that there was an "apparent partial mismatch between currently available and utilised insurance policies and the requirements emanating from Part 26A of the Act and Part 102 as applied by Maritime NZ".⁸⁶ PEPANZ proposed that it might be possible to address the different individual

⁸¹ Email from "Email from Patrick Teagle (Commercial and Legal Manager of OMV Exploration & Production) to Ministry of Transport regarding Consultation on financial assurance requirements for offshore installations (27 June 2014)" at 3.

⁸² Email from Chris Kilby (Senior Business Advisor to Shell Companies in New Zealand) to Ministry of Transport regarding Submission on Consultation on Financial Assurance Requirements for Offshore Installations (27 June 2014) at 2.

⁸³ "Email from Patrick Teagle", at 2.

⁸⁴ At 3.

⁸⁵ Email from Andrew Saunders (General Manager of the Petroleum Exploration & Production Association of New Zealand) to Ministry of Transport regarding PEPANZ Submission: Consultation on financial assurance requirements for offshore installations (27 June 2014) at 2.

⁸⁶ Email from Andrew Saunders (General Manager of the Petroleum Exploration & Production Association of New Zealand) to Ministry of Transport regarding PEPANZ Submission: Consultation on financial assurance requirements for offshore installations (27 June 2014) at 2.

elements of the pollution damage definition separately, and to make different security arrangements for each.

In a related document, the MOT agreed with these concerns and said that the problem goes beyond the fact that the insurance level is too low. As it stands, “current insurance products on the market appear to preclude owners or operators from meeting their legal requirements under MPR Part 102 solely through insurance.”⁸⁷ This is because operators have indicated that the insurance products available on the market today do not cover consequential economic losses to third parties, and therefore would not cover all aspects of the MTA’s definition of pollution damage.⁸⁸ It is worth noting that the United Kingdom’s current Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015 requires that prospective licensees demonstrate their financial capability to “cover liabilities potentially deriving from the offshore petroleum operations in question, **including liability for potential economic damages.**”⁸⁹ (emphasis added). The point is worth noting because the review would ultimately recommend that MPR Part 102 should exclude cover for losses of profit caused by impairment of the environment.

5.2.2 Maritime NZ’s Response

When the author approached Maritime NZ for a response, they replied that:⁹⁰

There has been no change to Maritime New Zealand internal policy. Maritime New Zealand has always applied the criteria as set out in Marine Protection Rules Part 102. However, Maritime New Zealand did improve its procedures for assessing applications. Previously, an insurance certificate was accepted as sufficient evidence of meeting the criteria at Part 102. Since 2013 Maritime New Zealand has required detail of the contract of insurance itself to ensure the appropriate cover is held with particular attention paid to the extent of cover, the specific triggers to cover, the limits, the effect of any double insurance clause, the effect of any partial interest clause, and exclusion clauses. As a result, some policies that had previously been accepted as meeting the requirements were assessed as inadequate. In these cases, alternative financial assurance is required. One form of alternative financial assurance is a Parent Company Guarantee.

⁸⁷ New Zealand Ministry of Transport *Marine Protection Rules Part 102; Certificates of Insurance Amendment 2014: Invitation to Comment* (May 2014) <www.transport.govt.nz> (accessed 29 June 2015) at 3.

⁸⁸ Email from Tom Forster (Manager Maritime & Freight Ministry of Transport) to Steven Farnworth regarding Marine Protection Rules Part 102 submissions (21 January 2016).

⁸⁹ Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015, r 3(2)(c).

⁹⁰ Email from Andrew de Montalk (Maritime NZ Adviser) to Steven Farnworth regarding Maritime New Zealand’s response to your email of 13 January 2016 (15 January 2016).

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In other words, it was not that Maritime NZ had changed its interpretation of pollution damage liability, it was that a closer look at the owner's insurance contracts revealed that they would not perform as advertised. Maritime NZ's response also attached a letter to offshore installation owners explaining that Maritime NZ's assessment would consider whether the certificate of insurance:⁹¹

- responds to any event that can lead to liability under the Act – that is to any actual or threatened discharge of oil causing pollution or damage or economic loss – and not just to a certain subset of these;
- does not exclude events that may arise from fault or negligence or failure to apply best practice;
- ...
- does not exclude claims where the event resulting in liability may have arisen in circumstances involving a violation of regulatory requirements;
- responds to economic claims (as above);
- ...
- is actually available for pollution damage;

(For example, where the policy has a single limit, the cover available may be absorbed first by control of well and re-drilling costs)

- is not rendered ineffective by;
 - discovery and reporting requirements,
 - by warranties of compliance by the operator that are likely to have been breached if pollution has occurred, or
 - by 'pay to be paid' clauses;

Permit participants may have signed joint venture agreements with partial interest clauses requiring them to provide insurance in proportion to their interest in the well or joint venture, and that could reduce the total insurance cover below the rule's minimum requirement.⁹² Problems may also arise if the operator has suffered prior losses in other jurisdictions, as they may accumulate eroding the total cover the insurer will provide under that policy. As for the claim that Maritime NZ would not accept parent company guarantees, Maritime NZ says that it considers assurances that the reserves of the whole group may meet liabilities to be "unpersuasive".⁹³

⁹¹ Maritime New Zealand *Certificate of Insurance - Offshore Installations* (email attachment) at 2.

⁹² At 3.

⁹³ At 3.

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They do “nothing to establish the financial capacity of the actual insurer to meet claims” and “appear contrary to the logic behind using locally incorporated operating subsidiaries with limited liability and providing them with insurance from a group’s captive insurer on specified policy terms.”⁹⁴ This suggests that Maritime NZ has a sophisticated understanding of insurance law and a determination to pay greater attention to the practicalities of implementing MPR Part 102.

Nevertheless, submitter’s arguments persuaded MBIE and MOT to prolong the consultation process, commissioning Navigatus Consulting to produce the “Financial Assurance Review – Integrated Damages Assessment Model” in November of 2015.⁹⁵ The review used an OPOL oil spill model to estimate that the costs of 120 day oil well blowouts at hypothetical well locations in the Deepwater Taranaki Basin, the Canterbury Basin and the Pegasus Basin would be \$926m NZD, \$58m NZD and \$12m NZD, respectively.⁹⁶ It concluded that financial assurances should vary depending upon “factors such as well location, nature of activity (production or exploration), and whether the reservoir requires pressure support.”⁹⁷ Places with strong onshore prevailing winds would be likely to suffer more damage, and shallow, low pressure wells were unlikely to blowout and would be easier to contain.

What is most revealing is that Navigatus were briefed to focus on the direct financial costs, which it defined as:⁹⁸

- ▶ Damage to other parties
- ▶ Costs incurred by public agencies in preventing and cleaning up a spill
- ▶ Costs of reasonable measures of reinstatement of the environment
- ▶ Losses of profit from impairment of the environment.

⁹⁴ At 3.

⁹⁵ Navigatus Consulting Ltd *Financial Assurance Review - Integrated Damages Assessment Model* (Ministry of Transport, 2015).

⁹⁶ At 7; Offshore Pollution Liability Association Ltd (OPOL) and United Kingdom Offshore Oil and Gas Industry Association Limited (Oil and Gas UK) *Oil Spill Cost Study - OPOL Financial Limits* (Oil and Gas UK 2012).

⁹⁷ At 7.

⁹⁸ At 9.

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Direct damages included:⁹⁹

- Direct pollution damage to first parties
- Losses of profit arising directly from impact to the environment
 - Tourism
 - Fisheries
 - Aquaculture
- Clean-up Costs
- Preventative measures to reduce pollution damage
- Commercial customary fishing

Other Navigatus studies estimated the costs of offshore spills on tourism and fishing and for clean-up.¹⁰⁰ Clean-up costs are not specifically defined, but New Zealand's "National Oil Spill Contingency Plan 2017" does describe clean-up as:¹⁰¹

Actions taken to confirm the presence of an oil spill, to stop the oil's flow from its source, contain the oil, collect it, protect areas from damage by it, mitigate its effect on the environment, and clean up wildlife and areas contaminated by it.

The brief excluded indirect damages such as non-commercial customary fishing, social, recreational and cultural damages (including harm to the mauri or life force), the impact on New Zealand's brand, and fines and other punitive penalties. Navigatus acknowledged that measures taken to "accelerate natural recovery of environment" are recognized by the IOPC Fund, but it assumed that these should also be excluded.¹⁰²

Why was the focus only on direct damages? OMV had expressed the view that direct costs are a feature of the OPOL regime, and that was a good model for New Zealand to follow.¹⁰³ Maritime NZ has also concluded that operators are not liable for the costs of environmental restoration under the MTA.¹⁰⁴ The MTA defines

⁹⁹ At 10, Figure 2.1 Damages inside and outside scope of project brief.

¹⁰⁰ At 10; "Method for Estimating Damages to Tourism", "Method for Estimating Damages to Fisheries", and "Method for Estimating Clean-up Costs" (Navigatus Consulting, 2015).

¹⁰¹ Maritime New Zealand *National Marine Oil Spill Contingency Plan* (Maritime New Zealand, March, 2017) at iv.

¹⁰² Figure 2.1, at 7.

¹⁰³ At 3.

¹⁰⁴ *Offshore Pollution Liability Agreement ("OPOL")* (effective as of 1 April 2015) <www.opol.org.uk>, cl 1(13). OPOL defines pollution damage to mean "direct loss or damage (other than loss of or damage to any Offshore Facility involved) by contamination which results from a Discharge of Oil."

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pollution damage to mean “damage or loss of any kind”, and there is no distinction between direct and indirect costs.¹⁰⁵ The focus on direct costs can only be explained as evidence of a willingness to suit the financial assurance requirements to the operators’ requirements, and not according to the content of the law.

As a result of these estimates and recommendations, Simon Bridges, Minister of Transport, released a cabinet paper entitled “Consulting on amendments to the Financial Security Regime for Offshore Installations.”¹⁰⁶ This suggested two possible options:¹⁰⁷

- a) Increase the minimum level of financial assurance to better reflect the potential costs of an event, and
- b) Introduce a scaled requirement reflecting the potential impacts from each installation.

The first option would involve simply raising the minimum level of insurance to \$300m NZD. The second would involve using the Integrated Damages Assessment model to assess the possible financial impact of a spill from a specific installation, then to place that site into one of 8 bands, ranging from a minimum insurance level of \$25m NZD to a maximum of \$800m NZD. The report acknowledged that both options would raise operators’ costs, but that most could rely upon their parent company’s global insurance policy.

As for the problem of finding the appropriate insurance cover, the report again offered two options. The first would be to “refine the scope of financial assurance required” and the second was to “introduce separate financial assurance requirements for different aspects of liability.”¹⁰⁸ The first option would still leave the operator liable for all costs and damage, but ease the requirement that all such costs be covered by insurance. The second option suggested maintaining a minimum of \$27m NZD to cover loss of profits, but to scale the financial assurance for other types of pollution damage. The report suggested that further work is required on issues to do with what financial assurance would be appropriate,

¹⁰⁵ Maritime Transport Act 1994, s 385A.

¹⁰⁶ Ministry of Transport *Consulting on amendments to the Financial Security Regime for Offshore Installations* (Ministry of Transport, 2016).

¹⁰⁷ At 5.

¹⁰⁸ At 6.

whether regulatory changes are necessary, and whether Maritime NZ should be in charge of implementation, and also whether “an industry fund is appropriate or necessary.”¹⁰⁹

5.2.3 The New Financial Assurance Regime

These suggested amendments were consolidated in a 2017 report inviting comments on final amendments to the financial assurance regime (“Invitation to Comment”).¹¹⁰ The final proposed plan aimed to make use of the integrated assessment model to place operators into the 8 band scaled framework, and to refine MPR Part 102 so that it no longer requires the owner to provide insurance for all aspects of their pollution damage liability under the MTA. The Invitation to Comment explained that Rule 102.8(2)(b) would be revoked, and henceforth offshore installation owners would only be required to provide insurance suitable to meet their liability for:¹¹¹

- i. costs of dealing with pollution under section 385B of the Act
- ii. pollution damage to property and costs of reasonable preventive measures under section 385C of the Act ...

Operators were no longer to be required to provide insurance to cover losses of profit from impairment of the environment, or the reasonable costs of reinstatement of the environment. The MOT acknowledged that this created a “small risk that third parties might not be compensated for losses of profit resulting from impairment of the environment, if permit holders are not able to cover their liabilities in this area.”¹¹² It is not clear how great such damages claims might be, but the Navigatus report found that damages from a hypothetical spill in the Taranaki region could cost as much as \$926m NZD. In the case of the Deepwater Horizon, the U.S. District Court in New Orleans consolidated and settled 100,000 private economic loss claims against BP and the other defendants in 2012, and

¹⁰⁹ At 7-8.

¹¹⁰ Ministry of Transport *Rule amendments to give effect to changes to the financial security regime in Marine Protection Rules Part 102: Certificates of Insurance - Invitation to Comment* (Ministry of Transport, July, 2017).

¹¹¹ Appendix I, at 7.

¹¹² At 1-2.

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awarded more than \$5bn USD in damages as of 31 March 2015.¹¹³ More work needs to be done in this area, and an assessment of business interests could have been incorporated into the financial assurance scaled framework.

MPR Part 102 has since been amended, as of 3 September 2017, with the addition of a new clause 102.8(2)(b) providing that the contract of insurance will be for an amount to be determined by the Director, and that it will be:¹¹⁴

... of a kind and scope suitable to meet the owner's potential liability under Part 26A of the Act for:

- i. costs of dealing with pollution under section 385B of the Act
- ii. pollution damage to property and costs of reasonable preventive measures and measures of reinstatement under section 385C of the Act.

In a surprising twist, owners will now be required to obtain insurance to cover the costs of “measures of reinstatement”, although it is not entirely clear whether that phrase refers to measures of reinstatement of the environment, or to reinstating fishing and tourism operators' losses of profits.

The Invitation to Comment explains that the MOT was far more concerned that the MPR Part 102 omitted the costs of well control.¹¹⁵ The Director is therefore to establish and apply a new scaled financial assurance framework, up to a maximum of \$600m NZD. The framework is to be based on:

- (a) the nature of the hydrocarbon being explored or mined
- (b) the location of the exploration or mining activity
- (c) the total volume of hydrocarbon likely to be released in the event of an oil spill
- (d) the potential impact of hydrocarbon on the shoreline in the event of an oil spill
- (e) relevant technical information, data, advice and guidance.

The MOT's second major concern was that two of the major statutes governing offshore petroleum activities used different terminology, and that the CMA refers

¹¹³ Jonathan Ramseur *Deepwater Horizon Oil Spill: Recent Activities and Ongoing Developments* (United States Congressional Research Service, 2015) at 6–7.

¹¹⁴ Marine Protection Rules Part 102 (As of 3 September 2017).

¹¹⁵ Ministry of Transport *Rule amendments to give effect to changes to the financial security regime in Marine Protection Rules Part 102: Certificates of Insurance - Invitation to Comment*, at 2.

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to “permit holders”, while the MTA refers to “owners”.¹¹⁶ The Invitation to Comment seems to prefer the term “permit holder”, and assumes that the permit holder is the entity responsible for fulfilling obligations under both Acts. The report argued that the Minister’s existing powers provide him with the authority to make changes to the MPR, without changing the MTA itself. However it also states that the difference in terminology between owner and permit holder “cannot be addressed in a new rule without first amending the primary legislation.”¹¹⁷ The matter appears to have been resolved, and the MPR states that it is the installation owner’s responsibility to provide insurance, but the Director may have regard for the operator’s oil spill contingency plan, its financial resources and may consider whether that insurance coverage might be eroded by any first party property damage claims.¹¹⁸

The Invitation to Comment promised that “guidelines to accompany the amended offshore financial assurance regime will clarify the relationship between the owners’ and the permit holders’ responsibilities.”¹¹⁹ Appendix 2 explains that the guidelines will, amongst other things, clarify liability and terminology, explain what costs and activities must be covered, what must be excluded, and what forms of assurance will be acceptable.¹²⁰ The guidelines will also address the difference between an offshore installation, FPSOs and ships, and how vessels are treated when they are outside of the permit area, or when they are not engaged in exploration or mining. It will also consider joint ventures and companies that own multiple installations, and will explore how the assurance rules will interact with “other parts of the New Zealand regime.” It is curious that the MOT has attempted to finalize its financial assurance regime before addressing the fundamental details of that liability, and it will also be important to consider exactly what form these guidelines take and whether they are produced as a legally enforceable instrument, or merely as a brochure expressing the Ministry’s opinions. Owners and operators

¹¹⁶ At 3.

¹¹⁷ At 3.

¹¹⁸ Marine Protection Rules Part 102, Rule 102.B(2C)-(2D).

¹¹⁹ Ministry of Transport *Rule amendments to give effect to changes to the financial security regime in Marine Protection Rules Part 102: Certificates of Insurance - Invitation to Comment*, at 3.

¹²⁰ Appendix 2, at 9-10.

and other interested parties will need to remember that liability may only be determined according to a close legal analysis of statutes, regulations and caselaw.

5.3 *Concluding Remarks*

The Ministry of Transport has finally begun the process of addressing these gaps by calling for submissions on the proposal to increase the minimum mandatory insurance levels in MPR Part 102, and more importantly, by commissioning Navigatus Consulting to carry out the first in-depth analysis of liability for pollution damage caused by offshore petroleum activities. The Navigatus Review and the Ministry of Transport's subsequent Invitation to Comment call for the establishment of a scaled financial assurance framework, where installations will be placed into one of 8 bands up to a maximum of \$600m. It is curious that the plan does not take account of the value of the shoreline, either in terms of its ecosystem services and its specific biodiversity, or on the basis of more traditional property values. It was troubling that insurance regime was being designed to exclude two of the three major elements of pollution damage, that is, the "costs of reasonable measures of reinstatement of the environment" and "losses of profit from impairment of the environment".¹²¹ It came as a surprise then that the final draft of the MPR will now require owners to provide insurance to cover "measures of reinstatement" under section 385C of the MTA. Does this refer to measures of reinstatement of the environment? Does it mean that owners and operators must insure against the cost of all measures, and not just the reasonable ones? The MPR still lacks consistency and displays an unwillingness to adhere to the MTA's marine pollution damage terminology.

The Navigatus Review made a further error in asserting that the insurance obligation is to be satisfied by the operator, when MPR Part 102 refers to the "owner" of the installation, a term that is significantly broader and could capture permit holders, managers, leaseholders and operators of the installation, their agents and employees, and any person in charge of operations that are merely "connected" with

¹²¹ Maritime Transport Act 1994, s 385A.

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the installation.¹²² The Ministry of Transport's "Invitation to Comment" also asserted that it is the permit holder who is responsible for providing insurance, and that will only be to cover the costs of dealing with harmful discharges, for property damage, and reasonable preventive measures. The MPR attempts to resolve the point by directing that it is the owner's responsibility to provide insurance cover, but the Director can take account of the operator's financial resources and oil spill contingency plans. Does this mean that the owner can provide less insurance cover if its operation is being carried out by a person with ample financial resources? What happens if that person suffers unexpected losses and goes into insolvency?

The justification for the overall approach is that, while there are standard offshore insurance policies that will cover the costs of well control, redrilling and clean-up costs, and third party damage claims are usually addressed by the parent company's global insurance policy. Submissions regarding the 2014 Consultation Document complained that Maritime NZ was not accepting parent company guarantees anymore, and that response may have been a factor in the decision to refine the scope of financial assurance in this way. This is a concession excusing parent companies and their insurers from liability via the MTA's direct action provisions. The possibility that insurance could be supplemented by an industry-fed compensation fund or mutual indemnity association has either been forgotten, or was never seriously considered.

A cursory reading of Appendix 2 makes it clear that there are a multitude of issues that have yet to be resolved, most of which have already been considered by this thesis, and all of which are key to understanding who the owner is, what it will be held liable for, and therefore, what financial securities will be appropriate. It seems that the financial assurance regime is being driven by the availability of insurance, rather than by the scope of liability in the Maritime Transport Act 1994 itself. In fact, one could go further, and say that the new regime appears to be an effort to return New Zealand's pollution damage liability laws to the days of the 1930s Petroleum and Public Works Act era, when polluters were only required to clean up oil and to reimburse property owners for the market value of their damaged or

¹²² Marine Protection Rules Part 102, rule 102.2.

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lost assets. Granted, the MOT's papers emphasize that owners of marine structures will continue to be liable for the full extent of pollution damage under Part 26A of the MTA, but unlimited liability without financial security amounts to a bare assurance.

What is glaringly absent from the entire consultation process is any attempt to address Maritime NZ's concerns. Maritime NZ's letter to the industry pointed out that that any Certificate of Insurance had to cover all aspects of pollution damage liability, ensuring that cover would not be excluded if the event was caused by the insured's failures, or would be eroded by the costs of well control and redrilling, by pay to be paid clauses, by partial interest clauses or by claims in other jurisdictions. Instead of requiring the owner to bolster its financial security with parent company guarantees, demanding that owners and operators craft their public liability insurance to cover all aspects of third party and environmental damage liability, or obtain other forms of financial security such as a captive insurance company, a mutual indemnity agreement, or create some form of industry-fed compensation fund, the objective has been narrow the scope of that liability so that it can be easily satisfied by the standard existing OEE forms.

There is nothing wrong with that channelling objective, per se, but it is only truly effective if the liable operator is also obliged to provide adequate financial security for that liability. The CLC and Fund Conventions are effective because strict liability is backed up by mandatory insurance and a compensation fund. The EU's Offshore Safety Directive also directs Member States to ensure that the permitted operator is also the party that would be held liable for environmental damage, and, even though it does not go so far as to require operators to obtain insurance, the Member State is expected to assess the operator's financial capacity to ensure that it is capable of meeting its environmental damage obligations under the ELD.

New Zealand's offshore petroleum liability regime abandoned channelling in the hope that, by spreading liability as widely as possible, some owner or operator would be held financially responsible for the damage their activities had caused. Broad liability was felt to be in the interests of justice, but it was also vital because there was no offshore liability and fund convention that the victims of oil pollution

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damage caused by offshore installations and operations could appeal to and because it was very difficult to obtain insurance or other financial security guarantees to secure that liability. The new financial assurance regime undermines this objective, however, because it effectively channels that liability to the offshore installation owner, and not to the various permit holders, contractors, and joint venture partners who had hitherto been included in the MTA's definition of the term.

The question then is, is the government's current approach to the financial assurance requirements based upon a proper understanding of the meaning of pollution damage? By examining the historical legal, technological and political developments that caused the CLC and Fund Conventions to be established, it is possible to understand what the MTA means when it refers to terms like "pollution damage" and "preventive measures", but also why it is significant that the New Zealand law has diverged from the Conventions' model of strict, channelled and limited liability. This investigation entails asking why liability had to be channelled to a single shipowner, why strict liability was preferred to fault-based, why that liability had to be limited, and why those limits were closely related to the availability of insurance and the capacities of the industry-fed International Oil Pollution Compensation Fund ("IOPC Fund") which administers the Fund Convention. Furthermore, the discussion will consider how the IOPC Fund grappled with issues of quantifying and defining pollution damage, how it differentiated between quantifiable and unquantifiable losses, including environmental damage per se claims, how it managed the separation between ships and offshore installations, and what this means for the future of an international offshore oil and gas industry liability and compensation convention.

6 Maritime Law before *Torrey Canyon*: Limited Liability and the Tort of Negligence

As the previous chapters have explained, New Zealand first adopted the CLC and Fund Conventions 1969/1971 into the Marine Pollution Act 1974, then copied its 1992 iterations into the Maritime Transport Act 1994. These acts were created to implement the CLC and Fund Conventions and their system of strict liability for pollution damage caused by ship-source oil spills in New Zealand waters. However, it was also quickly realised that that the same definitions could be used to hold the owners and operators of offshore petroleum exploration and extraction activities and operations strictly liability for damage caused by offshore oil spills as well.

What this policy neglected to provide for, at least initially, was to be certain that the owners and operators of offshore drill rigs, pipelines would also have the financial resources to pay for those damages claims. The most recent financial assurance review has solved some of these issues, but it allows financial security requirements to be scaled to the risk posed by the particular offshore installation. Continuing gaps in understanding of the specific meaning the IMO and the IOPC Fund have given to terms like “pollution damage” and “preventive measures” may have caused New Zealand’s Ministry of Transport to exclude important elements of the installation owners’ liabilities from the mandatory insurance requirements, and that could complicate efforts to obtain comprehensive compensation following any future offshore oil spill incidents.

The CLC and Fund Conventions were created to address liability and compensation for oil pollution damage caused by tankers. They were not designed for and do not apply to oil spills from offshore petroleum exploration and extraction installations or activities. Their systems of strict and limited liability, channelled to the shipowner, and backed up by mandatory insurance a complementary industry-fed compensation fund, were only possible because of the context provided by pre-existing maritime legal systems and principles, and because their continuing

existence is based on an alliance between the shipping, insurance and oil importing industries.

To understand what role those maritime laws and industries played in forming the CLC and Fund Conventions, and why that system has not expanded to include oil pollution damage caused by offshore petroleum exploration and extraction installations and activities, either in New Zealand or internationally, we must carefully review how the Conventions were formed in the first place. Why was liability channelled to a single shipowner? Why was liability strict and not fault-based? Why was liability limited, and how were the limits of liability calculated? How was the risk of pollution damage claims spread amongst the insurance and petroleum industries, and how was that agreement reached? How were the terms for “preventive measures” and “pollution damage” first created, and why did it become necessary to redefine the Convention’s scope of liability with respect to environmental damage per se claims in 1992? Answering these questions will help to explain any misgivings about New Zealand’s offshore marine pollution damage liability regime, and may help to point to sensible recommendations for its reformation.

6.1 *The Basis of the Maritime Privilege of Limited Liability*

International trade has long been seen as a matter of national interest, and limited liability has been called “one of the first examples of state support for the shipping industry.”¹ The privilege dates back to Roman times, and limits were originally set according to the value of the ship. According to Oliver Wendell Holmes, the principle was based on the Roman legal term, *noxae deditio*, meaning to surrender that which has caused damage.² A man could discharge his liability for damage caused by his children or slaves, by handing them over to the injured party. Setting aside the morality of treating humans as chattels, the principle came to be applied

¹ Edgar Gold, Aldo E Chircop and Hugh M Kindred *Maritime Law* (Irwin Law, Toronto, Ont, 2003) at 718.

² James Donovan “The Origins and Development of Limitation of Shipowners’ Liability” (1979) 53 Tul. L. Rev. 999 at 1000; Muhammad Billah “Economic Analysis of Limitation of Shipowners’ Liability” (2007) 19 U.S.F. Maritime Law Journal 297 at 299; Oliver Wendall Holmes *The Common Law* (Dover Publications, New York, 1991) at 8.

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to maritime law, and provided the basis that liability limits should be set according to the value of the ship itself. It was Hugo Grotius who first condemned the idea that shipowners should be “absolutely bound by the acts of the masters employed”, suggesting that it would be far better to follow the Dutch example and limit the shipowner’s liability to the sum value of the ship and its cargo.³

Noxae deditio can be found in more modern sources of Roman Law, such as the Amalphan tables of 11th century Italy, the 17th Century Statutes of Hamburg, Hanseatic Ordinances of 1614 and 1644, and the 1667 Maritime Code of Sweden.⁴ The principle was first introduced in England in 1733, after a shipowner was found liable for a cargo of bullion stolen by his ship’s master. A group of highly alarmed shipowners submitted to Parliament that:⁵

... when they became Owners of Ships, [they] did not apprehend themselves exposed to such Hazard or liable or Owners to any greater Loss than that of the ships and Freight... unless some Provision be made for their relief, Trade and navigation will be greatly discouraged since Owners of Ships find themselves, without any Fault on their Part, exposed to ruin, from which their greatest Circumspection cannot secure them, through their Malversation of the Masters or Mariners, who they are obliged to employ.

Lord Mustill explained that ship and cargo owners expected to be parties to a joint venture, but that the value of the cargo frequently exceeded that of the ship.⁶ It would not be fair to hold the shipowner liable for the loss of the cargo, particularly when, in an era before the telegraph was invented, they had no possibility of contacting and instructing their ships at sea. The best an owner could do was to ensure that his ship was well stocked, well maintained, and worked by a competent captain and crew. Maritime limited liability emerged at the same time as the joint stock company, and it played in great part in the early success of the great merchant fleets of nations like Great Britain and the Netherlands.

³ AC Campbell (translator) Hugo Grotius *The Rights of War and Peace* (1901 ed, M Walter Dunne, New York, 1625), Chapter XI, “On Promises” at [XIII]; Gotthard Gauci *Oil Pollution at Sea: Civil Liability and Compensation for Damage* (Wiley, Chichester, England; New York, 1997) at 152.

⁴ M Faure and Wang Hui “Financial Caps for Oil Pollution Damage: A Historical Mistake?” (2008) 32 *Marine Policy* 592 at 594.

⁵ Lord Mustill “Ships are different - or are they?” [1993] *LMCLQ* 490 at 496.

⁶ At 492–493.

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For most of recorded history, including the time that Grotius was writing, shipwrecks seldom caused significant environmental damage, and the chief burden fell upon the cargo owner and the unfortunate crew.⁷ A wrecked ship could even be a boon and popular fiction glamorized images of wreckers luring cargo ships onto rocky and isolated shores.⁸ Edward Cowan even notes an Eighteenth Century chaplain's plea:⁹

We pray thee, O Lord, not that wrecks should happen, but if wrecks do happen
Thou wilt guide them into the Skilly Isles for the benefit of the poor
inhabitants.

As the Industrial Revolution gained pace ships became larger and their cargoes became more hazardous, however. The limitation right therefore became less about the “malversation” of dishonest masters, and more about insulating shipowners against an increasing number of deaths and ever greater property and environmental losses.¹⁰ The United States acted on the issue with the Limitation of Liability Act of 1851, limiting the shipowner's liability to the value of his legal interest in the vessel and freight at the conclusion of the voyage.¹¹ That right could be lost if the cause of the accident was within the privity or knowledge of the owner, a safeguard against incidents where unscrupulous owners sent over-insured but hopelessly dilapidated “coffin” ships to their certain doom at sea.¹² The Act was procedurally complicated and required that each ship and its cargo be individually valued, but its fatal flaw was that if the ship was completely destroyed before the end of the voyage, then the ship and cargo would have no value and shipowner would face no liability. This feature would play a key role in deciding the liability of the owners of the *Torrey Canyon*, as the next chapter will explain.

⁷ Peter Swan “International and National Approaches to Oil Pollution Responsibility: An Emerging Regime for a Global Problem” (1971) 50 Or. L. Rev. 504 at 507.

⁸ W Randy Miller “The Case of the Brig Halcyon: A Study in Old Key West Admiralty Law” (1996) 27 JMARLC 311 at 311.

⁹ Edward Cowan *Oil and Water: The Torrey Canyon Disaster* (William Kimber and Co Ltd, London, 1969) at 55–56; Cited in Charles Perrow *Normal Accidents* (Basic Books Inc, New York, 1984) at 183.

¹⁰ Mustill “Ships are different - or are they?”, above n 5, at 497.

¹¹ Swan, above n 7, at 507–508; Limitation of Liability of Shipowner's Act of 1851 U.S.C. § 183(a) (1964).

¹² Gordon Jackson “Marine Insurance Frauds in Scotland 1751-1821” (2004) 35 JMARLC 431.

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The United Kingdom took a more sensible path with the Merchant Shipping Act of 1854 limiting liability by the gross tonnage of the ship.¹³ This became the international standard after the major shipping nations rejected a 1924 convention that followed the United States' example.¹⁴ The United Nations' newly established Inter-Governmental Maritime Consultative Organization ("IMCO") drafted the 1957 International Convention Relating to the Limitation of the Liability of Owners of Seagoing Ships ("1957 Limitation Convention").¹⁵ This set the shipowner's liability at 1000 francs or \$67 USD per adjusted net ton of the ship, subject to the "actual fault or privity" exception.¹⁶ Its limits were superseded by the 1976 Convention on Limitation of Liability for Maritime Claims ("LLMC") which substantially increased the limits of liability, but extended that protection to a much wider range of persons, and which has been criticised for making those limits virtually unbreakable, however.¹⁷

David Steel argues that limited liability still has a role to play in encouraging investment, levelling the playing field internationally, protecting the insurance industry and guaranteeing compensation rather than punishment. It is still true, he says, that "it is better for the victim to have a limited claim which he can be certain that can be paid than to have an unlimited claim against an insolvent party."¹⁸ Likewise, Billah has argued that limited liability may have been about encouraging investment in merchant shipping, but that it can now be justified by the fact that it would be prohibitively expensive and futile to expect the insurance industry to cover unlimited liability.¹⁹ Bevan Marten agrees that the second beneficiary of the global limitation of liability is the insurance industry, which uses limitation caps to

¹³ David Steel "Ships are Different: The Case for Limitation of Liability" [1995] LMCLQ 77 at 79.

¹⁴ 1924 International Convention for the Unification of Certain Rules relating to the Limitation of Liability of Owners of Sea-going Vessels, 120 LNTS 123 (opened for signature 25 August 1924, entered into force 2 June 1931).

¹⁵ *1957 International Convention Relating to the Limitation of the Liability of Owners of Seagoing Ships and Protocol of Signature*, [1981] ATS 2 (opened for signature 10 October 1957, entered into force 31 May 1968); Chao Wu *Pollution from the Carriage of Oil by Sea: Liability and Compensation* (Kluwer Law International, London ; Boston, 1996) at 33.

¹⁶ At 34.

¹⁷ Convention of 19 November 1976 on Limitation of Liability for Maritime Claims, 1456 UNTS 221 (opened for signature 19 November 1976, entered into force 1 December 1986) (1976); Edgar Gold, Aldo E Chircop and Hugh M Kindred *Maritime Law* (Irwin Law, Toronto, Ont, 2003) at 721

¹⁸ Steel "Ships are Different: The Case for Limitation of Liability", above n 13, at 87.

¹⁹ Muhammad Billah "Economic Analysis of Limitation of Shipowners' Liability" (2007) 19 U.S.F. Maritime Law Journal 297 at 298.

set accurate and lower premiums.²⁰ However, he points out that such limits should not come at the expense of the innocent third party with no connection to the shipping industry, and that full priced liability would give shipowners more of an incentive to improve their safety standards.

By the end of the 1950s, channelled and limited liability were indispensable features of international maritime law that IMCO would have to take into consideration during the development of the CLC and Fund Conventions.²¹ Even so, the 1957 Limitation Convention did not come into force until 1968. It therefore did not play a direct part in the 1967 *Torrey Canyon* incident, but if it had, its limits would have protected the ship's owners against the full financial cost of the spill.²² 1954 also saw the adoption of the Oil Pollution Convention ("OILPOL"), but this only focussed on prohibiting excessive intentional discharges of oil from ships, and there was still no international maritime liability convention.²³

6.2 *Fault Based Maritime Tort Law in the 1950s*

The period of the 1950s and 1960s was then one in which the shipping industry was able to enjoy the protection of limited liability, with limits that could only be breached if the cause of the accident was within the shipowner's "actual fault or privity". This thesis will explain how two quite different shipping accidents would demonstrate just how vulnerable this situation left the victims of shipping accidents. First, this chapter will describe how the grounding of the *Inverpool* in 1950 showed how difficult it was for plaintiffs to obtain a remedy from contemporary maritime tort law, laws which still apply today, and which offer no greater hope to future victims of offshore oil spills. Then, in the next chapter, it will describe the 1967 sinking of the *Torrey Canyon* that would demonstrate the absurd result of the existing limited liability laws. This will help to explain why the CLC and Fund

²⁰ Bevan Marten *Maritime Law in New Zealand* (Thomson Reuters, Wellington, 2016) at 196–197.

²¹ Ling Zhu and Ming Zhang "Insuring against Marine Pollution Liability: An International Perspective" (2015) 46 *J. Mar. L. & Com.* 373 at 391; Edgar Gold, Aldo E Chircop and Hugh M Kindred *Maritime Law* (Irwin Law, Toronto, Ont, 2003) at 719.

²² Wu at 34.

²³ International Convention for the Prevention of Pollution of the Sea by Oil, 12 UST 2989 (opened for signature 12 May 1954, entered into force 26 July 1958).

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Conventions 1969/1971 would opt to hold tanker owners strictly liable for oil pollution damage, instead of basing liability on fault as had been the case in tort law, and why the shipowners' liability would be limited, but why that liability would be based upon the size of the tanker, rather than on its value at the conclusion of a voyage which could end in the total loss of the ship.

In *Esso Petroleum Co Ltd v Southport Corporation*, the claimants from Southport attempted to employ the *res ipsa loquitur* principle to reverse the burden of proof onto the defendant oil company.²⁴ It was the first marine pollution case to reach the House of Lords, and was the last word on tortious liability for maritime oil spills before the development of the CLC and Fund Conventions. It is worth noting that the trade name Esso is the phonetic version of the initials for Standard Oil, for two reasons.²⁵ First, Standard Oil was one of the largest companies in the world at the time, and the case could be likened to David meeting Goliath but forgetting to bring the right slingshot. Secondly, Standard Oil was a predecessor to Exxon Mobil, the owner of the infamous *Exxon Valdez*, a ship whose name is synonymous with oil pollution damage and whose destruction would contribute to the United States decision to reject the CLC and Fund Conventions regime and form its own Oil Pollution Act of 1990. It is also worth noting that Devlin J, the High Court judge in that case, would become Lord Devlin and would actually represent the United Kingdom at the 1969 CLC Convention conference in Brussels.²⁶ Lord Devlin would play a pivotal role in shifting the CLC Convention 1969 from fault based to strict liability, and it is possible that his support for a strict liability regime stemmed from his experience with the *Inverpool*.

6.2.1 The *Inverpool* Case

It was on the 3rd of December 1950, that the *Inverpool* grounded on a revetment wall in the river Ribble outside the town of Southport, in the northwest of England. The drama began when the *Inverpool's* steering failed just after she entered the

²⁴ *Esso Petroleum Co Ltd v Southport Corp* [1953] 3 WLR 773; *Esso Petroleum Co Ltd v Southport Corp* [1954] 2 QB 182 (CA); *Esso Petroleum Co Ltd v Southport Corporation* [1956] AC 218 (HL).

²⁵ ExxonMobil "About us" <www.exxonmobil.com> (accessed 10 June 2016).

²⁶ Lord Devlin is also famous for the part he played in the controversial Hart v Devlin debates about the right of a community to enforce its moral codes; Peter Cane and Joanne Conaghan *The New Oxford Companion to Law* (Oxford University Press, Oxford [England] ; New York, 2008) at 312.

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shallow, narrow channel leading towards Southport.²⁷ The seas were moderately heavy, and the master elected to proceed only to see the ship sheer sideways and ground to a halt on a revetment wall. As the tide fell, the full weight of the ship bore down on the wall, threatening to break the ship in two. The master tried to back the ship off the wall, but the propeller fouled on some unknown object and the engines had to be stopped. The decision to discharge the ship's cargo of heavy oil was a last resort. It refloated the ship and saved the lives of all on board, but contaminated seven and a half miles of the town's adjoining riverbank.

When the town of Southport brought Esso Petroleum before the High Court, Devlin J observed that Parliament had yet to enact legislation dealing with liability for the discharge of oil, so he could only consider causes of action in trespass, nuisance and negligence.²⁸ He was inclined to think that the discharge of oil was sufficiently direct to amount to a trespass, but declined to treat that issue. Private nuisance claims require "interferences for a substantial length of time by owners or occupiers of property with the use or enjoyment of neighbouring property", allowing the defendants to argue that the oil had come from the sea and not a neighbouring property.²⁹ Devlin J agreed, but said that publicly navigable waters were most analogous to public highways and the proper course of action was in negligence. He restated Blackburn J's highway rule from *Rylands v Fletcher* to mean that:³⁰

... owners whose property adjoins the sea, equally with owners whose property adjoin the highway, take the risk of damage being done by users of the sea or of the highway who are exercising with due care their rights of navigation or of passage.

Property owners therefore must accept the risk of damage done by lawful users of the sea, unless they are able to prove that the shipowner or his master had not exercised "due care". However, Devlin J could not fault the master's decision to go ahead that day, even if the actual cause of the accident remained "a mystery and a puzzle to him."³¹ Only those on board the *Inverpool* really knew what had occurred,

²⁷ *Esso Petroleum Co Ltd v Southport Corp* [1953] 3 WLR 773.

²⁸ At 775.

²⁹ At 776; *Cunard v Antifyre Ltd* [1933] 1 KB 551 at 557.

³⁰ At 777; See *Rylands v Fletcher* (1866) LR 1 Ex 265 (Exch), at 286–287.

³¹ *Esso Petroleum Co Ltd v Southport Corp* [1953] 3 WLR 773 at 780.

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and all they would say was that the steering had failed after the propeller hit some object. In the absence of any explanation or evidence of wrongdoing, the plaintiffs may sometimes use the *res ipsa loquitur* rule. This says that:³²

...the happening of an accident may in certain circumstances itself be reasonable evidence of negligence; and when there is reasonable evidence of negligence put forward by the plaintiff and no explanation put forward by the defendant, the plaintiff is, of course, entitled to succeed.

Res ipsa loquitur reverses the burden of proof so that the onus is on the defendant to explain why they should be exonerated. It is, in effect, a form of strict liability. The rule stems from the case of the *Merchant Prince*, where Lord Esher said that:³³

Unless you can get rid of it, it is negligence proved against you that you have run into a ship at anchor... the only way for a man to get rid of that which circumstances prove against him as negligence is to shew that it occurred by an accident which was inevitable by him – that is, an accident the cause of which was such that he could not by any act of his have avoided its result. He can only get rid of that proof against him by shewing inevitable accident, that is by shewing that the cause of the collision was a cause not produced by him, but a cause the result of which he could not avoid.

The three elements then are that:

1. there must be damage that would not ordinarily happen without some negligence;
2. the accident must be caused by something in the defendant's care; and
3. there must be the absence of an explanation by the defendants.³⁴

The presumption of liability can only be rebutted if the defendant can show the accident was inevitable and that no amount of reasonable care and skill could have prevented it.³⁵ The defendants argued that the discharge was necessary to save the lives of those on-board. Devlin J accepted that, and applied the rule from *Woods v*

³² *Southport Corporation v Esso Petroleum Co, Ltd and Another* [1953] 2 All E.R. 1204 at 1212.

³³ *Esso Petroleum Co Ltd v Southport Corp* [1953] 3 WLR 773 at 779; *The Merchant Prince* [1892] P 179 (CA) at 187–188.

³⁴ Stephen Todd (ed) Stephen Todd *The Law of Torts in New Zealand* (5th ed, Brookers, Wellington, NZ, 2009) at 392.

³⁵ Alexandra Mandaraka-Sheppard *Modern Maritime Law* (2nd ed, Cavendish, London, 2007) at 571–572.

Duncan, that “if a defendant can satisfy the court that he personally was not negligent, he does not have to explain how the accident occurred.”³⁶ The master had made the best of a choice between two evils, and it was not for the court to fault that decision.

The master’s exoneration also saved Esso Petroleum from any vicarious liability. Furthermore, because the plaintiffs failed to question Esso Petroleum’s “actual fault or privity” in their pleadings, the rules of civil procedure barred them from raising the question at trial, even after evidence emerged that the propeller had been fouled because part of ship’s stern had broken away. Devlin J elected to side-step that question and simply apply Lord Blackburn’s traffic rule. People who live by the sea have to assume the risk of accidents unless they can prove negligence.

On appeal, Denning LJ agreed that the master may have been justified in discharging oil, but the more important question was “how came she to get upon the wall?”³⁷ Either the ship was running out of control, in which case she was a public nuisance, or it was under the master’s control and:³⁸

... that was plain negligence. The ship seeks to escape from this charge of negligence by saying that her steering gear had failed and she was out of control. But that is no answer unless she proves – and the legal burden is on her to prove – that it was no fault of hers that the steering gear had failed. She has not discharged that burden, or even attempted to discharge it. She is, therefore, liable.

The House of Lords had the last word and reversed the Denning LJ’s judgment because, without proof of negligence on the part of either the defendant company or the master of the ship, there was no case to answer.³⁹ But here we come again to the point of procedure alluded to earlier:⁴⁰

If the plaintiffs’ case had been put in the alternative, either that there was some navigational error or that the ship was unseaworthy, the case would no doubt

³⁶ *Woods v Duncan* [1946] AC 401; 62 TLR 283; *Esso Petroleum Co Ltd v Southport Corp* [1953] 3 WLR 773 at 782.

³⁷ *Esso Petroleum Co Ltd v Southport Corp* [1954] 2 QB 182 (CA) at 197–198.

³⁸ At 201.

³⁹ *Esso Petroleum Co Ltd v Southport Corporation* [1956] AC 218 (HL) at 237.

⁴⁰ At 237.

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have been developed on wholly different lines. Had any such case been made, the ambit of discovery would have been enlarged and the theory advanced by the Elder Brother that the *Inverpool* may have broken her stern frame against the bed of the channel would have been explored.

Lords Normand, Morton, Radcliffe and Tucker would all agree: “There was no notice in the pleadings of any other cause of actions, such as the appellants negligently sending the vessel to sea in an unseaworthy condition.”⁴¹ The only question was the negligence of the master and his acquittal also completely exonerated the shipowners. Lord Blackburn’s traffic rule is decisive, those who own property next to a public highway assume the risk of damage and “the person who has suffered damage cannot recover in trespass in the absence of negligence on the part of the person who has caused the damage”.⁴²

The *Inverpool* case is the classic example of the difficulties plaintiffs must overcome to obtain relief in maritime tort law, and explains why it was so significant that the CLC and Fund Conventions opted for strict liability.⁴³ Fault based liability, or even fault based liability with a reversed burden of proof, creates too much of a danger for the victims of industrial or shipping accidents. Even today, oil pollution accidents outside of the CLC and Fund Convention regime, including those involving offshore oil and gas activities, may be decided under the fault based torts.⁴⁴ Tort law has evolved since the *Inverpool*, but victims of offshore accidents may find their remedies limited by civil tort law’s burdens of proof and standing requirements.

6.2.2 Tort Law since the *Inverpool*

Despite the advent of the CLC and Fund Conventions, private tort law still applies to oil spills from other sources, including the offshore petroleum industry. As an alternative to the fault-based tort of negligence, plaintiffs could try a cause of action in public nuisance. Public nuisances are those that affect the “life, health, property or comfort of the public, or obstructs the public in the exercise or enjoyment of

⁴¹ At 238.

⁴² At 244–245; *River Wear Commissioners v Adamson* (1877) 2 App.Cas. 743 at 767.

⁴³ Michael Tsimplis “Marine Pollution from Shipping Activities” in Yvonne Baatz (ed) *Maritime Law* (2nd ed, Sweet & Maxwell, London, 2011) 421 at 423.

⁴⁴ Mandaraka-Sheppard *Modern Maritime Law*, above n 35, at 977.

rights common to all her Majesty's subjects", and it could be argued that a spill of oil at sea would obstruct the public in exercising its rights of navigation, fishing or leisure.⁴⁵ Public nuisance essentially reverses the burden of proof, as once the plaintiff has established that a nuisance has been created it is for the defendant to explain how it occurred. The defendant may argue that the nuisance was reasonable, but Bill Atkin adds that if the interference has been found to be unreasonable, then it is no answer that the defendant took all due care, or that the benefits outweigh the harm.⁴⁶ The creator of the nuisance must reduce the interference to a reasonable level or cease it altogether, so in the case of an offshore oil spill, the polluter would be absolutely liable for the costs of removing oil and restoring the environment to its former state. Trespass is also a strict liability tort, but it only applies if the hazardous substance is poured directly onto the claimant's property, and, unlike negligence, there is no need to prove a breach of a specific duty of care.⁴⁷

F. H. Newark has said that it would be wrong to decide highway cases according to the tort of public nuisance, because highway users should only be required to take reasonable care, and the appropriate action is in negligence.⁴⁸ Atkin agrees and says that the two torts overlap so completely that there is no practical advantage in describing the injury as a nuisance.⁴⁹ In *The Wagon Mound (No 2)*, Lord Reid confirmed that, while public nuisance and negligence were still distinct torts, highway cases should be decided according to the fault based rules of negligence.⁵⁰ However, Simon Rainey has argued that the tort continues to play an important role in punishing polluters, for example, it would have provided a better outcome following the 1996 sinking of the *Sea Empress*, where the statutory fines amounted to a mere £750,000.⁵¹ Clerk and Lindsell have pointed out that nuisance can still be used to provide compensatory damages, especially in situations where the regulator

⁴⁵ Simon Rainey "To the Great Damage and Common Nuisance of All Liege Subjects of Our Lady the Queen": Oil Pollution Claims and Public Nuisance" in Barış Soyer and Andrew Tettenborn (eds) *Pollution at Sea: Law and Liability* (Informa, London, 2012) at 108.

⁴⁶ Bill Atkin "Nuisance" in Stephen Todd (ed) *The Law of Torts in New Zealand* (7th ed, Thomson Reuters New Zealand Ltd, Wellington, NZ, 2016) 525 at 583.

⁴⁷ Rainey, above n 45, at 115–123.

⁴⁸ FH Newark "The Boundaries of Nuisance" (1949) 65 LQR 480 at 490.

⁴⁹ Atkin "Nuisance" at 587.

⁵⁰ *Overseas Tankship (UK) Ltd v Miller Steamship Co Pty Ltd* [1967] 1 AC 617 (PC) [*The Wagon Mound (No 2)*] at 639.

⁵¹ Rainey, "To the Great Damage and Common Nuisance of All Liege Subjects of Our Lady the Queen": Oil Pollution Claims and Public Nuisance", above n 45, at 96.

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will not take action.⁵² However, public nuisance requires that the plaintiff prove that he or she has suffered special damages over and above that suffered by the public, and the remedy is usually an injunction rather than compensation, which limits its usefulness.⁵³

An alternative to public nuisance might be to apply the rule in *Rylands v Fletcher*.⁵⁴ This case states that:⁵⁵

...the person who for his own purpose brings on his lands and collects and keeps there anything likely to do mischief, if it escapes, must keep it in at his peril, and if he does not do so, is *prima facie* answerable for all the damage which is the natural consequence of its escape.

C.W.M. Ingram points out that *Rylands v Fletcher* has been applied to the escape of things as various as “gas, electricity, explosives and poisons”, but not to pollution stemming from the carriage of oil by sea.⁵⁶ His view was that *Rylands v Fletcher* only applies to non-natural users of land and that there is nothing unusual about using the ocean as a public highway. Greg Gordon asked whether *Rylands v Fletcher* rule should apply to those who hold permits to occupy the United Kingdom’s seabed and explore for petroleum, as it has in other tenancy situations.⁵⁷ The major flaw in that argument, he says, is that the defendant operator has not brought the oil onto the land, but is merely collecting the oil that is already there.⁵⁸ Secondly, a licence to operate is not the same as a proprietary right. Indeed, no one may own the EEZ and continental shelf, but the state merely has sovereign rights to explore and exploit natural resources outside the 12 nm territorial water limit.⁵⁹

⁵² JF Clerk and others *Clerk & Lindsell on Torts* (20th ed, Sweet & Maxwell, London, 2010) at [20–5].

⁵³ Bill Atkin “Nuisance” in Stephen Todd (ed) *The Law of Torts in New Zealand* (7th ed, Thomson Reuters New Zealand Ltd, Wellington, NZ, 2016) 525 at 562.

⁵⁴ *Rylands v Fletcher* (1866) LR 1 Exch 265, aff’d (1868) LR 3 HL 330.

⁵⁵ *Rylands v Fletcher* (1866) LR 1 Exch 265 at 278.

⁵⁶ C.W.M. Ingram “Oil Pollution and *Rylands v Fletcher*” (1971) 121 N.L.J. 183 at 183; See also Gauci *Oil Pollution at Sea: Civil Liability and Compensation for Damage* above n 3, at 13; See also Philipp Wendel “Maritime Tort Liability” (paper presented to Seminar on International and Comparative Maritime Law, St Petersburg, 11 May 2003) at 3.

⁵⁷ Greg Gordon “Oil, water and law don’t mix: environmental liability for offshore oil and gas operations in the UK; Part 2: Regulatory law, the Environmental Liability Directive and OPOL” (2013) 25 ELM 121 at 6.

⁵⁸ Gordon, at 6–7.

⁵⁹ United Nations Convention on the Law of the Sea 1833 UNTS 3; 21 ILM 1261 (1982) (opened for signature 10 December 1982, entered into force 16 November 1994), art. 56.

Finally, he says that the rule only applies to a very narrow concept of property damage so it would exclude claims for personal injury or pure economic losses.

In the 1994 case of *Cambridge Water Co v Eastern Counties Plc*, Lord Goff said that there was a close relationship between nuisance and the rule in *Rylands v Fletcher*, even if nuisance almost always required some foreseeability of harm.⁶⁰ The New Zealand Court of Appeal has endorsed *Cambridge Water Co*, and the current position is that *Rylands v Fletcher* is a subcategory of nuisance.⁶¹ The effect of these decisions is to largely subsume *Rylands v Fletcher* into the principles of public nuisance. If a dangerous thing escapes from land that a person owns or is occupying, then that person may be liable, but only if the escape was reasonably foreseeable. If Ingram is correct and the only question is whether public's right to navigate the highway freely has been infringed, then the nuisance will cease once the oil has been cleared from the shipping lane. If the escape causes damage to adjoining properties, then, as in *Esso Petroleum v Southport Corporation*, the plaintiff would need to prove that the owners or operators of the offshore installation were negligent. Nuisance still requires some evidence that the harm was foreseeable in that the tortfeasor knew, or should have known, that their actions or omissions would result in the kind of harm that actually occurred.

Issues of standing and compensation arose in the Canadian case of *British Columbia v Canadian Forest Products*.⁶² As a private landowner the Crown would have to show that it had suffered special damages, but it could also represent the public interest in preventing public nuisances. As the Court explained, "the notion that there are public rights in the environment that reside in the Crown has deep roots in the common law".⁶³ The problem was that the Crown had not made use of any specific methodology, but had simply made unsubstantiated assertions about the environmental and financial value of its non-harvestable trees. The Court said that it was acceptable to pursue the twin objectives of compensation and deterrence, but

⁶⁰ *Cambridge Water Co v Eastern Counties Leather Plc* [1994] 2 AC 264 (HL) at 297.

⁶¹ Claire Kirman and Justice Christian Whata "Environmental Litigation and Dispute Resolution" in Derek Nolan (ed) *Environmental and Resource Management Law* (2015) 1220 at 1326; *Hamilton v Papakura District Council* [2002] 1 NZLR 265 (CA).

⁶² *British Columbia v Canadian Forest Products Ltd* [2004] 2 SCR 74.

⁶³ At [74]-[75].

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any valuation methodology had to have a proper evidentiary basis.⁶⁴ As Binnie J put it, a “claim for environmental loss, as in the case of any loss, must be put forward based on a coherent theory of damages, a methodology suitable for their assessment, and supporting evidence.”⁶⁵ The Court referred to F.B. Cross and his analysis of passive use or existence value and inherent value methodologies in the seminal work, “Natural Resource Damage Valuation”.⁶⁶ The IOPC Fund has rejected these particular kinds of valuation methodologies, so they may not be applicable to an offshore oil spill either, but the broader point stands. Public nuisance claims may allow for compensatory damages for environmental damage, so long as the damages are supported by the evidence and by a suitable methodology.

6.3 *Concluding Remarks*

What this chapter illustrates is that maritime laws evolved over several centuries to protect the interests of shipowners. In particular, the maritime privilege of limited liability was created because nation states had a strong interest in protecting their mercantile fleets. However, as the Industrial Revolution gathered pace, the cargoes these fleets carried became more and more hazardous, posing ever-greater threats to coastal communities. Limited liability was so deeply engrained into maritime law that the only real question was whether the limits should be based on the size of the ship, as in the United Kingdom, or using the United States’ measurement according to the value of the ship and its cargo at the end of the voyage.

The *Inverpool* case demonstrated how hard it could be for the victims of shipping accidents to find a remedy in tort, and particularly in the fault-based law of negligence. The House of Lords affirmed Devlin J’s reading of *Rylands v Fletcher* so that plaintiffs must bear the burden of proving that the shipowner or ship’s master caused that oil pollution damage, or else they must assume the risk of suffering damage caused by users of publicly navigable waterways. The case also

⁶⁴ At [155].

⁶⁵ At [12].

⁶⁶ F.B. Cross “Natural Resource Damage Valuation” (1989) 42 Vand. L. Rev. 269.

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demonstrates that procedural pitfalls can swallow up even worthy cases that do reveal evidence of wrongdoing.

As the next chapter will demonstrate, the concepts of limited and fault-based liability would play a key role in shaping the CLC and Fund Conventions. A new generation of massive oceangoing oil tankers were now sailing international waterways, and the international community would no longer permit their owners to pollute the seas with impunity, sheltering behind what had become ludicrously generous limited liability laws. The CLC and Fund Conventions would impose strict liability, but they would retain limited liability, so long as that liability was set according to the size of the ship, not its value at the end of the voyage, and that liability would have to be secured with mandatory insurance and a complementary industry-fed compensation fund.

The situation facing the victims of offshore oil spills caused by offshore petroleum exploration and extracting activities in New Zealand waters is quite different. The owners and operators of offshore petroleum installations and operations face strict liability for pollution damage, but that liability is unlimited, insurance is mandatory, but there is no international compensation fund available to cover any unpaid claims. Unlike for the pollution damage caused by CLC ships, there is no statutory bar preventing the victims of offshore oil spills from bringing actions in tort outside of the MTA. The assumption will still be that the proper cause of action is in negligence. The onus is then on the plaintiff to prove that the owner or operator of the offending marine structure or operation was at fault, and that their wrongful actions caused harm to the plaintiff. The outcome of that litigation is far from certain. It may be very difficult to bring the tortfeasor before a court, and in the absence of adequate statutory liability or mandatory insurance laws, there is little to prevent defendants from engaging in complicated delaying tactics, denials of wrongdoing, or even declaring insolvency and disappearing from the scene. The tort of public nuisance may offer an easier path to compensatory damages, but it may be difficult for a member of the public to prove its standing to bring such a cause of action. It is for this reason that tort law continues to be of relevance to our understanding of liability and compensation for offshore oil spills.

7 The CLC and Fund Conventions 1969/1971

This chapter will begin by describing the developments in international maritime law that led up to the creation of the CLC and Fund Conventions. It will explain how the United Nations' special maritime agency, the Inter-Governmental Maritime Consultative Organization ("IMCO"), played a key role in developing international shipping law in the post-war period and in providing a forum for the CLC and Fund Conventions 1969/1971.

As the previous chapters explained, the CLC and Fund Conventions are relevant to this thesis because they were incorporated into New Zealand law and their definitions were used to create a strict offshore liability regime. They have also been relevant to efforts to create an international offshore petroleum industry liability and fund convention. For example, the CLC and Fund Conventions' model of strict liability, backed up by mandatory insurance and a compensation fund, did provide a starting point for the 1976 Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration and Exploitation of Sea Bed Mineral Resources ("CLEE").⁶⁷ CLEE never came into force, but it did prompt the creation of the Offshore Pollution Liability Association ("OPOL"), a mutual indemnity agreement between oil and gas operators from 13 countries in the North Sea region which will be discussed further in a later chapter.

The CLC and Fund Conventions were also very influential in the debate leading up to the creation of the European Union's Environmental Liability Directive, which now applies to environmental damage caused by offshore oil and gas activities in EU Member States' EEZs, as will be discussed later in the thesis. The CLC and Fund Convention regime again came into focus after the 2009 *Montara* oil rig disaster prompted Indonesia to propose that the International Maritime Organization ("IMO") – IMCO's successor - should expand its work programme to

⁶⁷ Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977 16 ILM 1451 (opened for signature 1 May 1977, not in force).

include pollution damage caused by offshore oil and gas exploration and extraction activities. The intention was to either expand the CLC and Fund Conventions to include oil pollution damage caused by offshore activities, or to create a new international liability and compensation regime specific to the offshore oil industry. This proposal was defeated, but it seems that the issue will continue to arise whenever offshore petroleum and extraction activities cause oil pollution damage.

A number of academics have argued that the CLC and Fund Conventions represent the gold standard of environmental liability and compensation conventions.⁶⁸ The Conventions' authors were highly motivated, they carefully considered the advantages of strict and limited liability over a fault based system, and they designed the regime to making the best use of the insurance industry, while sharing that liability with the oil industry through the establishment of the International Oil Pollution Compensation Fund. It follows that, to have the best understanding of the CLC and Fund Conventions and their influence on the development of international environmental liability laws, the thesis should examine how the United Nations sought to instil international legal norms into international maritime law, culminating with the 1969 and 1971 conferences where the CLC and Fund Conventions were first debated and adopted.

7.1 Developments in International Law Prior to the Torrey Canyon

In the years immediately following the Second World War, the newly formed United Nations began regulating the activities in the global commons, establishing IMCO in 1948.⁶⁹ IMCO was a specialist maritime agency, tasked with preventing anti-competitive practices, developing safety regulations and with facilitating

⁶⁸ Shane Bosma "The Regulation of Marine Pollution Arising from Offshore Oil and Gas Facilities – An Evaluation of Current Regulatory Regimes and the Responsibility of States to Implement a New Liability Regime" (2012) 26 A & NZ Mar LJ at 112; Michael Mason "Transnational Compensation for Oil Pollution Damage: Examining Changing Spatialities of Environmental Liability" (2002) London: LSE Research Online <www.eprints.lse.ac.uk> at 20; Kyriaki Noussia "Environmental Pollution Liability and Insurance Law Ramifications in Light of the *Deepwater Horizon* Oil Spill" in Juergen Basedow, Ulrich Magnus and Rudiger Wolfrum (eds) *The Hamburg Lectures on Maritime Affairs, 2009 & 2010* (Springer, New York, 2012) at 1–3.

⁶⁹ No 4214 Final Act of the UN Maritime Conference done at Geneva, 6 March 1948 at 4.

general cooperation and the free exchange of information between governments.⁷⁰

Its original purpose statement was:⁷¹

... to provide machinery for co-operation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade, and to encourage the general adoption of the highest practicable standards in matters concerning maritime safety and efficiency of navigation...⁷²

Despite a majority consensus that harmonized international shipping laws were needed, several more suspicious maritime nations delayed the IMCO convention's entry into force until 1958.⁷³ The delay was rooted in a reluctance to allow IMCO to have any say in commercial matters, and the view that it should confine itself to purely technical questions.⁷⁴ Offshore oil industry matters are notable by their absence.

It was not until 1954 that the international community agreed on a plan for preventing and reducing operational oil spills from all ships with the International Convention for the Prevention of Pollution of the Sea by Oil 1954, or OILPOL.⁷⁵ OILPOL prohibited excessive operational discharges from shipping within 50 miles of land or inside "special areas" of particular ecological significance.⁷⁶ Operational discharges result from practices such as ballast pumping, or when tanker's holds are scrubbed out with seawater; practices which caused regular and significant oil incidents, with the affected state never knowing just which passing ship was

⁷⁰ Convention on the Intergovernmental Consultative Organization, later renamed as the Convention on the International Maritime Organization, 289 UNTS 3 (opened for signature 6 March 1948, entered into force 17 March 1958) Annex B; Marianne Harvey "The Origins of IMO" (2012) IMO: The Origins of the International Maritime Organization <www.imo.org> at 10; Tormod Rafgard "Tankers, Big Oil and Pollution Liability" (2011) <www.oilpollutionliability.com> at 36.

⁷¹ Convention on the Intergovernmental Consultative Organization, later renamed as the Convention on the International Maritime Organization, 289 UNTS 3 (opened for signature 6 March 1948, entered into force 17 March 1958), art. 1(a).

⁷² IMO's current statement of purpose adds to this, "and prevention and control of marine pollution from ships." See Maria Gavouneli *Pollution from Offshore Installations* (Graham & Trotman/M Nijhoff, London ; Boston, 1995) at 32.

⁷³ Marianne Harvey "The Origins of IMO" (2012) IMO: The Origins of the International Maritime Organization <www.imo.org> at 13.

⁷⁴ At 14.

⁷⁵ International Convention for the Prevention of Pollution of the Sea by Oil, 12 UST 2989 (opened for signature 12 May 1954, entered into force 26 July 1958).

⁷⁶ International Convention for the Prevention of Pollution of the Sea by Oil, 12 UST 2989 (opened for signature 12 May 1954, entered into force 26 July 1958), art. 3, prohibited zones are defined in Annex A.

responsible.⁷⁷ IMCO had only formally met the first time the previous year when it took charge of OILPOL in 1960, evincing an early and admirable resolve to grapple with thorny legal issues.⁷⁸

OILPOL was never fully accepted by governments, even after it was strengthened by amendments in 1962, 1969 and 1971, and was sharply criticised as being ineffective and unworkable.⁷⁹ As Legault explains, OILPOL's major defects relate to detection and jurisdiction.⁸⁰ Flag states, whose entire *raison d'être* is to attract shipowners with the easiest shipping regulations, employment and tax laws, had to be relied upon to vigorously prosecute their own merchant fleets at the behest of the affected coastal state. It required major investments in port state infrastructure and that shipowners install "load-on-top" systems to separate oil from the water used to scrub tanks. It also failed to address accidental discharges, and would not have affected the outcome of incidents like the *Inverpool* case. Even so, OILPOL was a valuable forerunner to the modern era, and largely became incorporated into the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 ("MARPOL 73/78").⁸¹ Global geopolitical events would shortly drive the development of a new wave of super tankers, setting the stage for oil pollution incidents orders of magnitude greater than the *Inverpool*.

7.1.1 The Torrey Canyon Disaster

In 1956, Israel, followed closely by Britain and France, invaded Egypt, seizing control of the recently nationalized Suez Canal and attempting to force President Nasser Hussein from power.⁸² The invasion was unsuccessful. The Suez Canal carried 60 percent of Europe's oil, and its closure forced Saudi oil shipments to take

⁷⁷ For example, in 2000, when New Zealand's Poor Knights marine reserve was oiled after bilge was pumped from an unidentified ship; Tony Gee "Poor Knights saved by wind" *New Zealand Herald* (30 June 2000) <www.nzherald.co.nz> (accessed 20 September 2016).

⁷⁸ Harvey, "The Origins of IMO", above n 7, at 16.

⁷⁹ Emeka Duruigbo "Reforming the International Law and Policy on Marine Oil Pollution" 31 *JMARLC* 65 at 69; Thomas Mensah "International Environmental Law: International Conventions Concerning Oil Pollution at Sea" (1976) 8 *Case W Res J Int'l L* 110 at 117.

⁸⁰ LHJ Legault "The Freedom of the Seas: A Licence to Pollute?" (1971) 21 *UTLJ* 211 at 213.

⁸¹ Hui Wang *Civil Liability for Marine Oil Pollution Damage: a comparative and economic study of the international, US and the Chinese compensation regime* (Kluwer Law International, The Netherlands, 2011) at 21–22; Duruigbo, above n 13, at 70.

⁸² Spencer Tucker and Priscilla Mary Roberts *The Encyclopedia of the Arab-Israeli Conflict: a Political, Social, and Military History* (ABC-CLIO, Santa Barbara, Calif, 2008), vol 3 at 964.

the much longer route to Europe around the Cape of Good Hope.⁸³ The ensuing oil price rises and increased voyage times sparked a demand for much larger tankers.⁸⁴ The first 100,000 ton tanker was launched in 1959 and by the mid-1960s the first Very Large Crude Carriers of 200,000 tonnes deadweight were on order. The *Torrey Canyon* was typical of this trend as, although her hull was laid down in 1959, the vessel was broadened and lengthened at a Japanese shipyard in 1965, doubling in capacity.⁸⁵ Thus, international military and political crises, increasing ship sizes, and advances in offshore petroleum exploration and production activities, were combining to increase the risk of oil spill disasters in the post-war era.⁸⁶ Despite the objectively spiralling risks, Tormod Rafgard, the first Managing Director of tanker industry association Intertanko and member of the Norwegian delegation to the 1969 Brussels conference, describes the attitude of tanker owners and operators at that time as “fairly relaxed”.⁸⁷ In much the same way as the *Deepwater Horizon* has now focused world attention on the risks of deepwater oil and gas exploration, it would take the spectacular sinking of the *Torrey Canyon* to raise awareness of the increasing threat posed by the new generation of super tankers.⁸⁸ Even half a century on, the *Torrey Canyon* still features in the top ten list of the worst oil spills in history.⁸⁹

The *Torrey Canyon* was owned by the Liberian Barracuda Tanker Corporation, but she was on a 20 year time charter to Union Oil Company of California, and voyage chartered to British Petroleum (“BP”), when she ran aground on rocks near Scilly Isles off the south-eastern tip of the United Kingdom on Saturday the 18th of March

⁸³ Islam Y Qasem *Oil and Security Policies: Saudi Arabia, 1950 - 2012* (Brill, Leiden Boston, 2016) at 56.

⁸⁴ Peter Swan “International and National Approaches to Oil Pollution Responsibility: An Emerging Regime for a Global Problem” (1971) 50 *Or L Rev* 504 at 506; International Maritime Organization “Background” (2013) IMO: Our Work <www.imo.org>.

⁸⁵ Rafgard “Tankers, Big Oil and Pollution Liability”, above n 4, at 48.

⁸⁶ Swan “International and National Approaches to Oil Pollution Responsibility: An Emerging Regime for a Global Problem”, above n 18, at 506.

⁸⁷ Rafgard, above n 4, at 47.

⁸⁸ See generally Rafgard at 48–57; CWM Ingram “Oil Pollution and *Rylands v Fletcher*” (1971) 121 *NLJ* 183 at 183; Andree Kirchner “International Marine Environmental Law: Editorial Introduction” in Kirchner (ed) *International Marine Environmental Law: Institutions, Implementation and Innovations* (Kluwer Law International, The Hague; New York; London, 2003) 1 at 1.

⁸⁹ European Commission *Commission Staff Working Paper: Impact Assessment Accompanying the Document “Proposal for a Regulation of the European Parliament and of the Council on safety of offshore oil and gas prospection, exploration and production”* SEC(2011) 1292 final at 7.

1967.⁹⁰ The charter arrangement was typical, as shipowning companies often financed the construction of their vessels by assigning long term charter revenues to the major oil companies.⁹¹ This gave the oil company the advantages of operational control, without the disadvantages of legal liability that came with the appellation of shipowner. Union Oil was Barracuda's own holding company, and BP owned the oil.⁹² The *Torrey Canyon* was on time charter to Union Oil when she and her sister ship, the *Lake Palourde*, were "jumboized"; a detail that would factor into the later court case.⁹³

Matters were further complicated by the fact that her master and crew were Italian, the victims were British and French, and sinking took place in international waters.⁹⁴ The Scilly Isles form part of territory of the United Kingdom, but the *Torrey Canyon* actually ran aground on the Seven Stones Reef, mid-way between the Scilly Isles and Land's End and twelve nautical miles off the British Coast on the high seas as they were defined at that time.⁹⁵ The location of the accident made the United Kingdom's decision to bomb the *Torrey Canyon* without the owner's consent legally problematic.⁹⁶ It is for that reason that the accident would lead to the development of an Intervention Convention, complementary to and simultaneous with the CLC and Fund Conventions, giving states to the right to take action on the high seas to prevent, mitigate, or eliminate the danger of oil pollution damage to their coastlines.⁹⁷

⁹⁰ *In re Barracuda Tanker Corp (Torrey Canyon)* 409 F.2d 1013 (2d Cir. 1969) at 1013–1014.

⁹¹ Swan "International and National Approaches to Oil Pollution Responsibility: An Emerging Regime for a Global Problem", above n 18, at 521.

⁹² Chao Wu *Pollution from the Carriage of Oil by Sea: Liability and Compensation* (Kluwer Law International, London ; Boston, 1996) at 10.

⁹³ Edward Cowan *Oil and Water: The Torrey Canyon Disaster* (William Kimber and Co Ltd, London, 1969) at 25.

⁹⁴ Nina von Borries "The International Convention on Civil Liability for Oil Pollution Damage and Recklessness" (PhD Dissertation, Universität Hamburg, 2009) at 8.

⁹⁵ Claude Emanuelli "The Right of Intervention of Coastal States on the High Seas in Cases of Pollution Casualties" (1976) 25 U.N.B.L.J. 79 at 79

⁹⁶ International Maritime Organization *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, "Observations and Proposals of Governments Concerning Draft Articles on the Right of a Coastal State to Intervene When a Casualty Which Causes, or Might Cause Pollution of the Sea [By Oil] Occurs on the High Seas", LEG/CONF/C.1/1.

⁹⁷ International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 11 ILM 284 (opened for signature 18 December 1971, entered into force 16 October 1978)

The *Torrey Canyon* was running late, and BP ordered the master, Captain Rugiati, to make all speed to reach port before the tide turned.⁹⁸ He decided to risk a faster course through rocky, confined waters east of the Scilly Isles, but shortly found that the great ship was bearing down on a local fishing boat. The helmsman desperately tried to bear hard left, but was stymied by the fact the Captain had left the auto-pilot on, and the fully laden tanker ran hard aground on Pollard Rock.⁹⁹ One hundred thousand tonnes of Kuwaiti crude spilled forth from the rents in the *Torrey Canyon*'s hull, most of the damage was caused to the south-western coast of Britain, but over the following week the mid-channel islands and the French coast of Brittany were also heavily impacted as a vast black plume spanned the entire English Channel.

The salvors, Bureau Wijsmuller, airlifted pumps and compressors from Cornwall in an attempt to refloat the ship, and large amounts of toxic industrial detergents were sprayed into the sea.¹⁰⁰ Famed Dutch salvage expert Hans Stal rushed to the scene only to be killed by one of two explosions at the stern of the ship.¹⁰¹ The British Cabinet considered towing the ship away to be scuttled in the Atlantic, but concluded that they had no right to intervene without the owner's consent. Union Oil, apparently ignoring the legal fiction that the ship belonged to Barracuda, would only agree if they were paid \$10m USD. Prime Minister Harold Wilson, speaking from his holiday cottage on the Scillies, warned that, whatever occurred, the tanker would not be allowed into United Kingdom territorial waters.¹⁰²

All hopes of a successful salvage disappeared on Monday, 27th of March 1967, when the beleaguered tanker's back was broken as four tugs attempted to pull her off the rocks in heavy seas.¹⁰³ Eight Royal Navy Buccaneers and three RAF Hunters bombed the remaining 40,000 tonnes of crude oil, but the fire only lasted a few hours and by Friday further bombing runs were aborted. Attempts by the French

⁹⁸ Rafgard, "Tankers, Big Oil and Pollution Liability", above n 4, at 50.

⁹⁹ Charles Perrow *Normal Accidents* (Basic Books Inc, New York, 1984) at 182–184; For a concise description of the *Torrey Canyon*'s last hours, see Cowan *Oil and Water: The Torrey Canyon Disaster*, above n 27, "The route taken by all large vessels" at 50.

¹⁰⁰ Rafgard, above n 4, at 51.

¹⁰¹ At 52.

¹⁰² At 76.

¹⁰³ At 52–53.

government to prevent pollution damage were likewise futile and it was later claimed that fifty per cent of the bird life of the North Brittany Coast was lost.¹⁰⁴ Annar Poulsson, of the International Group of Protection and Indemnity clubs, would describe the clean-up effort as “fantastic and hopelessly inadequate” and that it immensely increased the total expense.¹⁰⁵ The total cost of the clean-up was estimated at £14.24 million GBP, yet the ship and cargo were only insured for around £6.49 million GBP.¹⁰⁶

A Liberian Board of Inquiry ascribed the blame solely to Captain Rugiati and absolved the owner from any “actual fault or privity” in causing the accident.¹⁰⁷ Union Oil argued that it owed a duty to the underwriters to make all efforts to save the ship, and that the aerial bombing was the proximate cause of most of the damage.¹⁰⁸ Captain Rugiati, who had an exemplary record and may have been seriously fatigued after having served aboard the *Torrey Canyon* without leave for an entire year, lost his licence and never sailed again.

Because the sinking had occurred in international waters, it raised jurisdictional difficulties that would bedevil later attempts to bring the *Torrey Canyon*'s owners before either an English or a French court. Under *Phillips v Eyre*, actions could be brought before an English court if the wrong was actionable both in England and the place where it occurred, while the rule in *Boys v Chaplin* gave competence to “the law of the country with which the parties and the act done have the most significant connection.”¹⁰⁹ Barracuda Tanker Corporation had no assets in the United Kingdom, and simply refused to appear when summoned by the United

¹⁰⁴ At 55.

¹⁰⁵ International Maritime Organization *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, “Descriptions of Major Incidents of Marine Pollution by Oil - Annex III - Letter of 12 June sent to IMCO by the Managing Director of Assuranceforeningen Skuld, Oslo, Norway”, LEG/CONF/6 at 52; Tormod Rafgard “Tankers, Big Oil and Pollution Liability”, above n 4, at 55.

¹⁰⁶ Nina von Borries “The International Convention on Civil Liability for Oil Pollution Damage and Recklessness”, above n 28, at 7.

¹⁰⁷ Liberian Board of Investigation “Report on the Stranding of the 'Torrey Canyon' (pollution of the sea by oil)” (American Society of International Law, Washington DC, USA, May-June, 1967), vol 6, at 480; Rafgard, above n 4, at 53–54.

¹⁰⁸ At 55.

¹⁰⁹ Nina von Borries “The International Convention on Civil Liability for Oil Pollution Damage and Recklessness”, above n 28, at 9; *Phillips v Eyre* (1870) LR 6 QB 1; *Boys v Chaplin* [1968] 2 WLR 328; [1968] 2 QB 1 at 20.

Kingdom in Singapore, or by the French in Rotterdam.¹¹⁰ Its fatal mistake was to allow the *Torrey Canyon's* sister ship, the *Lake Palourde*, to enter the port at Singapore, where she was captured by an action by the United Kingdom Government. The ship was only released when Barracuda handed over a bond of \$8m USD, a sum that would ultimately be used to effect a settlement in the *Torrey Canyon* dispute. The *Lake Palourde* was arrested again by French authorities after it entered Rotterdam, however, allowing the French to demand their own security payment of \$7.8m USD.¹¹¹

To pre-empt further court actions, Barracuda and Union Oil jointly instituted proceedings in the United States District Court of New York on September 22 1967.¹¹² There Bryan J confirmed that Barracuda's stipulated interest in the vessel was just \$50 USD under the United States Limitation of Liability Act of 1851.¹¹³ This figure appears ludicrous, but we recall that the Act set liability limits according to the value of the particular ship and its cargo at the end of the voyage. All that remained of that great ship was a single lifeboat valued at \$48 USD. Even if the matter had been decided under the English law, the owners would still have been entitled to limit their liability to £1.25m GBP, so limited liability would have played a significant role either way.¹¹⁴

The United States Court of Appeal eventually concluded that the accident could have been caused by Union Oil's involvement in the original design and manufacture of the vessel in 1958 and its modifications in Japan in 1965.¹¹⁵ The matter was ultimately settled out of court for the balance of the \$8-9m USD bond Union Oil had provided for the release of the *Lake Palourde* from Singapore, and that figure was largely covered by hull insurance. The Court should have been concerned that Captain Rugiati only had access to a \$2 USD map of the south-western tip of England and the Scillies. The British Admiralty's *Channel Pilot*

¹¹⁰ Ingram "Oil Pollution and Rylands v Fletcher", above n 22, at 184.

¹¹¹ Cowan *Oil and Water: The Torrey Canyon Disaster*, above n 27, at 209.

¹¹² *In re Barracuda Tanker Corp (Torrey Canyon)*, 281 F. Supp. 228 (1968).

¹¹³ *In re Barracuda Tanker Corp (Torrey Canyon)*, above n 24, at 1014.

¹¹⁴ Ingram "Oil Pollution and Rylands v Fletcher", above n 22, at 183; von Borries, above n 28, at 16. Under s 503 of the Merchant Shipping Act 1894 liability could be limited to £8 per net registered ton of the ship for losses other than personal injury. von Borries estimates this liability would have been approximately £1,430,000.

¹¹⁵ *In re Barracuda Tanker Corp (Torrey Canyon)*, above n 24.

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advised that “the greatest vigilance is necessary, and a vessel’s position, even in the clearest weather, should be checked by cross bearings at short intervals.”¹¹⁶ According to Edward Cowan’s account, the Scilly Isles had claimed 257 ships from 1679 to 1923, and the failure to maintain all necessary navigational aids is evidence of a shipowner’s actual fault and privity.

This account may have been lengthy in a thesis directed at liability for oil pollution damage caused by offshore oil well blowouts, but it does illuminate some very important aspects, not just of the CLC and Fund Convention regime, but that may be necessary for any environmental damage liability regime including New Zealand’s own offshore liability regime, and the EU’s Environmental Liability Directive. There was a need for clear rules allocating and defining liability and ensuring that compensation would be speedily made. These rules needed to account for the existing obstacles posed by public and private laws that sought to limit or evade that liability, either sweeping them aside or incorporating them on reasonable terms. Complicated charter arrangements and limited liability statutes were being used to shield owners from the consequences of their decisions, not just in how shipping activities were conducted, but in how ships were constructed or altered. States had a right to protect themselves from oil spills on the high seas, and if they suffered oil pollution damage, or were forced to carry out expensive preventive measures, then they needed the power to bring shipowners to court without the farcical necessity of chasing ships across the globe in order to hold them hostage for ransom. Shipowners needed the certainty of knowing that their liability would be subject to appropriate limits, that insurance would be available to meet those limits, that they would have recourse to suitable defences, and that cargo-owners would take some responsibility for the additional costs.

The shipping and oil industries had already taken significant steps with TOVALOP and CRISTAL, two agreements that would break ground for the CLC and Fund Conventions.

¹¹⁶ British Admiralty, *Channel Pilot*, Volume 1 (published by the Hydrographic Department under the authority of the Lords Commissioners of the Admiralty) cited in Edward Cowan *Oil and Water: The Torrey Canyon Disaster* (William Kimber and Co Ltd, London, 1969) at 55–59 and 207.

7.1.2 The Industry Response: TOVALOP and CRISTAL

March of 1968 also saw the *Ocean Eagle* break in two off the coast of Puerto Rico, and the *General Colocotronis* grounded on a reef in the Bahamas.¹¹⁷ The incidents prompted the seven major oil companies to form a mutual insurance syndicate called the Tanker Owners' Voluntary Agreement Concerning Liability for Oil Pollution ("TOVALOP").¹¹⁸ The discussions leading up to TOVALOP had predated the *Torrey Canyon* disaster by several years, evidence that tanker owners had anticipated the need to pre-empt any unilateral legislation.¹¹⁹

TOVALOP was signed by over ninety-eight per cent of the world's tanker owners, making it the first successful agreement allowing national governments to claim against individual owners and charterers for the reasonable costs of oil removal.¹²⁰ The agreement defined "damage by pollution" as "physical contamination damage to Coast Lines resulting directly from a Discharge of Oil, and does not include damage from fire or explosion, consequential damage, or ecological impairment."¹²¹ Liability was fault based with a reversal of the burden of proof, and was limited to the lesser of \$100 per gross ton or \$10m per incident; an ironic result given that Esso Petroleum had vigorously rejected *res ipsa loquitur* in the *Inverpool* case just a decade before.¹²²

A parallel scheme, the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution ("CRISTAL"), required oil cargo owners to contribute to a compensation fund.¹²³ The level of compensation would be set according to the size of the ship and measured in International Monetary Fund Special Drawing Rights ("SDR"). Compensation would only be paid if the damage exceeded the shipowner's limited liability. TOVALOP and CRISTAL were precursors to the

¹¹⁷ Swan "International and National Approaches to Oil Pollution Responsibility: An Emerging Regime for a Global Problem", above n 18, at 506.

¹¹⁸ Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution, *International Legal Materials* 8 (May 1969) 3 at 497.

¹¹⁹ Swan, above n 18, at 516.

¹²⁰ Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution ("TOVALOP"), *International Legal Materials* 8 (May 1969) 3 at 497, art. IV(A).

¹²¹ Article I(h).

¹²² Articles IV and VI.

¹²³ Oil Companies: Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution (January 1971) 10 *International Legal Materials* 1 at 137.

CLC and Fund Convention regime and only lapsed following the 1992 amendments to the shipping conventions.¹²⁴

7.2 *The Draft CLC Convention 1969*

The CLC Convention 1969 then did not spring fully formed from the earth, but was part of an ongoing debate about the role that ship and industry figures could play in preventing and compensating oil pollution damage. Yet while TOVALOP and CRISTAL had made valuable concessions, they still restricted claims to personal injury and property damage while largely ignoring damage to the environment.¹²⁵ The CLC Convention 1969 would therefore involve difficult negotiations before the shipping and oil industries would agree to share more of the costs of oil pollution damage.

In 1967, prompted by the United Kingdom and France, IMCO published a paper entitled “Conclusions of the Council on the Action to be taken on the Problems Brought to Light by the Loss of the ‘Torrey Canyon’”.¹²⁶ IMCO’s Legal Committee provided two alternative drafts.¹²⁷ Alternative A would impose fault based liability on the shipowner but with a reversed burden of proof along the lines of the TOVALOP agreement. Alternative B would impose strict liability, but with certain defences. At that stage, neither alternative considered holding the cargo owner liable. The Belgian based Comité Maritime International (“CMI”) also formed a working group chaired by Lord Devlin, the former High Court judge at the centre of the *Esso Petroleum v Southport Corporation* case.¹²⁸ Lord Devlin strongly

¹²⁴ Susan Bloodworth “Death on the High Seas: The Demise of TOVALOP and CRISTAL” (1998) 13 J. Land Use & Envtl. Law 443.

¹²⁵ Michael Mason “Transnational Compensation for Oil Pollution Damage: Examining Changing Spatialities of Environmental Liability” (2002) London: LSE Research Online <www.eprints.lse.ac.uk> at 4.

¹²⁶ von Borries, “The International Convention on Civil Liability for Oil Pollution Damage and Recklessness”, above n 28, at 20; IMCO “Conclusions of the Council on the Action to be taken on the Problems Brought to Light by the Loss of the ‘Torrey Canyon’” (1967), C/ES.III/5.

¹²⁷ International Maritime Organization *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, “Introduction” at 7.

¹²⁸ von Borries, above n 28, at 21; R Michael McGonigle and Mark W Zacher *Pollution, Politics, and International Law: Tankers at Sea* (University of California Press, Berkeley, 1981) at 151.

supported a strict liability approach, but the CMI draft opted to follow TOVALOP's fault based liability on the shipowner with a reversed burden of proof.

Before the Brussels conference, IMCO issued a questionnaire asking states to describe "... the major incidents of marine pollution by oil which have occurred in its coastal waters since 1959, together with their known consequences and other pertinent information". Fourteen countries reported 47 major incidents.¹²⁹ Lebanon also reported a burst pipeline in 1961 and Senegal reported a collision between two ships in 1967, making for a total of 48 major incidents involving ships. Annar Poulsson, Managing Director of P & I Club Assuranceforeningen Skuld, reported that there had been 850 oil spill insurance claims of more than kr. 5000 between 1960 and 1968, not counting the *Torrey Canyon*.¹³⁰ Most spills were caused when ships stranded or collided, but sometimes the offending ship would never be identified. For example, the Dutch reported that "... the Netherlands coast is frequently polluted by oil – very often of unknown origin and not always of a serious nature."¹³¹ A few countries like Brazil, Denmark, New Zealand and the Union of Soviet Socialist Republics reported that there had been no major incidents.¹³²

7.2.1 The Brussels Conference 1969: Strict Liability and a Compensation Fund

The International Legal Conference on Marine Pollution Damage was duly convened at Brussels from 10 to 29 November 1969. Debate was often heated, and the agenda and work schedule had not even been set when Mr Jamieson from Canada demanded a substantial revision of both draft conventions.¹³³ Why was it that shipowners and coastal states should bear the financial burden, when "pollution was mainly attributable to the nature of the substance carried, and was only

¹²⁹ International Maritime Organization *Official Records*, above n 7, "Descriptions of Major Incidents of Marine Pollution by Oil", LEG/CONF/6, at 36.

¹³⁰ International Maritime Organization *Official Records*, above n 7, "Annex III - Letter of 12 June Sent to IMCO by the Managing Director of Assuranceforeningen Skuld, Oslo, Norway", LEG/CONF/6, at 49.

¹³¹ At 45.

¹³² At 36.

¹³³ Rafgard, "Tankers, Big Oil and Pollution Liability", above n 4. Rafgard witnessed the incident when acting as Adviser to the Norwegian delegation and he reported that the Canadian delegate continued speaking despite demands from the President that he step down. Debate at the 1969 conference was extremely contentious right from the start.

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incidentally the carrier's fault."¹³⁴ The Canadian proposal was therefore to hold shipowner and cargo owner jointly and severally liable on a strict and progressive basis, with liability backed up by compulsory insurance.¹³⁵ Two days later, Mr McGovern from Ireland declared that the first task of any convention was to ensure adequate compensation for the victims of maritime accidents.¹³⁶ Liability laws, whether strict or fault based, could be easily avoided by one-ship companies. The most sensible solution would be to impose compulsory insurance on all shipowners, and supplement that by a fund paid for by oil industry levies. After all, as the *Torrey Canyon* proved, "it was the cargo which caused the damage and not the ship".¹³⁷

The delegates were well aware that more and possibly even larger spills were likely to follow.¹³⁸ Mr Appiah of Ghana feared that too much reliance was being placed on assessments of the damage caused by *Torrey Canyon*, and future damages could be much greater.¹³⁹ Mr Poulsson of P&I Club Assuranceforeningen Skuld agreed, saying that:¹⁴⁰

... future maritime casualties would doubtless be on a much larger scale than the 'Torrey Canyon' disaster; but since the size of ships would have increased the limits of liability under Article 3 of the 1957 Limitation Convention would increase proportionately. For instance, for a 500,000 ton tanker, it would vary from \$26 million to \$30 million.

The expectation that the costs of a major oil spill would be limited to just \$30m USD seems a little laughable now, but that was the estimated cost of the *Torrey Canyon*. Adjusted for inflation, would come to over \$200m USD at today's rates.¹⁴¹

Despite Lord Devlin's evident preference for the strict liability standard, the United Kingdom delegation threw its efforts behind fault-based liability on the shipowner, with adequate liability limits. Their concern was that it would not be as easy to hold

¹³⁴ International Maritime Organization *Official Records*, above n 7, "Summary Record of the Second Plenary Meeting", LEG/CONF/SR.2 at 84–86.

¹³⁵ LEG/CONF/4/Add.3 at 515.

¹³⁶ At 623; See also LEG/CONF/4/Add.4 at 536.

¹³⁷ LEG/CONF/C.2/SR.2 at 623.

¹³⁸ At 632.

¹³⁹ At 658.

¹⁴⁰ At 658.

¹⁴¹ As of 1 December, 2016.

the oil industry liable as some of the delegates seemed to think, and liability should lie with the shipowner. Unlike the shipowner:¹⁴²

... the shipper and cargo owner could not exercise any control over the cargo while it was on the high seas. Furthermore, it was difficult to identify the cargo owner, particularly as the cargo might change ownership during the voyage.

The United States agreed, saying that “the only unchanging point of reference was the shipowner, for the operator might change from time to time and the cargo might change hands several times in mid voyage.”¹⁴³ Mr Douay from France concurred, adding that the *Torrey Canyon* had displayed flaws in the existing maritime law, and litigation only increased the victim’s costs.¹⁴⁴ Shipowner’s liability backed up by compulsory insurance seemed the obvious answer, but what was the insurance industry’s response?

Mr Poulsson said that to “get the highest insurance coverage, liability must be based on fault.”¹⁴⁵ Fault based liability could be covered up to \$15m USD, but strict liability would only be covered to a maximum of \$10m USD. He did not mention the fact that fault based insurance could afford to be set at a higher level because it rewarded far fewer successful claimants.¹⁴⁶ Mr Nordensson from Sweden retorted that oil companies had more than enough money and if new insurance markets were required then they could be created, just as had occurred when strict liability was imposed on nuclear shipments fifteen years previously.¹⁴⁷

With a multiplicity of strongly opposing views and with time fast running out, it was becoming apparent that the conference might fail altogether. At this point, Mr Cuvelier put forward the Belgian proposal, echoing the earlier Canadian and Irish proposals, insisting that “an international fund should be established for compensating the victims of oil pollution, constituted by a levy on the carriage of oil.”¹⁴⁸ Lord Devlin complained that only the IMCO draft Articles had been

¹⁴² LEG/CONF/C.2/SR.3 at 626.

¹⁴³ At 630.

¹⁴⁴ LEG/CONF/C.2/SR.4, at 632.

¹⁴⁵ At 633.

¹⁴⁶ von Borries, “The International Convention on Civil Liability for Oil Pollution Damage and Recklessness”, above n 28, at 43.

¹⁴⁷ LEG/CONF/C.2/SR.4, at 634.

¹⁴⁸ At 637.

thoroughly discussed and to depart from them would only thwart the convention.¹⁴⁹

Mr Douay's reply was that the best course of action was to:¹⁵⁰

... begin studying the other alternatives immediately, even at the risk of failing to produce a Convention at the present Conference, rather than hasten to adopt a Convention which would not satisfy the State's concern and so might never be ratified, much less applied.

Discussions continued without success throughout a further two meetings, and with the weekend adjournment looming, the Chair suggested that the delegates give an indicative vote of their first choice between four options.¹⁵¹ Strict liability on the shipowner gained 14 votes versus 8 votes for fault based liability, strict liability for the cargo owner took 10 votes, with progressive joint strict liability on ship and cargo attracting only 4 votes. A consensus in favour of shipowner focussed strict liability was beginning to emerge, but with no clear majority a second vote would be necessary.¹⁵²

Now convinced of the need to be decisive, Lord Devlin took charge, demanding that the Belgian proposition "was the one proposal put forward which offered a way of meeting the gap over the cover offered by the insurance market" and that would easily work with the shipowner's strict liability as suggested by Alternative B of the draft Civil Liability convention.¹⁵³ Galvanised by his declaration, the delegates decided, 25 votes to 12, that liability should rest on the shipowner, by 25 votes to 7 that liability should be supplemented with a compensation fund, and finally by a vote of 22 to 17 against, with 3 abstentions, that liability should be strict.

Despite the breakthrough some delegates continued to express their dismay, and discussions stretched into the 11th meeting. By the 12th meeting, Mr Zhudro of the USSR remarked that the fund was beginning to be a distraction from the main questions the conference was supposed to be considering and that it was fraught with difficulties which might prove "insuperable".¹⁵⁴ Lord Devlin agreed, adding that the "Committee had allowed itself to become so dazzled by the idea that all

¹⁴⁹ LEGCONF/C.2/SR.5 at 638.

¹⁵⁰ At 639–640.

¹⁵¹ At 647–648.

¹⁵² LEG/CONF/C.2/SR.7, at 649–650.

¹⁵³ At 657–658.

¹⁵⁴ At 684.

problems could be solved by an international fund that it had not even started discussing the IMCO draft articles.”¹⁵⁵ There was no point in spending any more time on a scheme which might never come to fruition, and it was decided that a working group would put together a draft proposal to be the subject of a separate conference to be convened in two years.

Even so, the delegates at the Brussels Conference were able to agree that the shipowner was to be the sole liable party, and would be considered strictly liable for the costs of pollution damage and preventive measures.¹⁵⁶ The shipowner was entitled to limit their liability according to the size of the ship, so long as the incident had not been a result of the actual fault or privity of the owner.¹⁵⁷ Article 1 defined pollution damage as:

... loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, and includes the costs of preventive measures and further loss or damage caused by preventive measures.

Preventive measures referred to “reasonable measures taken by any person after an incident has occurred to prevent or minimise pollution damage.” The CLC Convention 1969 also settled the jurisdiction question by granting competence to the courts of any countries where pollution damage occurred, or where preventive measures had to be taken.¹⁵⁸ Insurance was to be mandatory and sufficient to cover the owner’s limited liability.¹⁵⁹ Article III(8) allowed for direct action against the insurer or person providing financial security and that insurer or person would be able to “avail himself of the limits of liability and other defences other than the bankruptcy of the owner which the owner himself is entitled to invoke.” Wu Chao says that the concept of direct action was “revolutionary”.¹⁶⁰ Limited liability with mandatory insurance had been a feature of the earlier 1962 Brussels Convention on the Liability of Operators of Nuclear Ships, however, so that description is not strictly accurate.¹⁶¹

¹⁵⁵ At 684-685.

¹⁵⁶ International Convention on Civil Liability for Oil Pollution Damage 1969, art. III.

¹⁵⁷ Article V.

¹⁵⁸ Article IX.

¹⁵⁹ Article VII.

¹⁶⁰ Wu *Pollution from the Carriage of Oil by Sea: Liability and Compensation*, above n 26, at 65–66.

¹⁶¹ 1962 Brussels Convention on the Liability of Operators of Nuclear Ships (opened for signature 25 May 1962, not in force), art. III.

What might happen if the shipowner's conduct was so delinquent that it lost both the protection of limited liability and its insurance cover? The rule from the 1957 Limitation Convention was that the owner was entitled to limit his liability, "unless the occurrence giving rise to the claim resulted from the actual fault or privity of the owner."¹⁶² The Draft CLC Convention adopted the same principle.¹⁶³ What is meant then by terms like "actual fault or privity", "seaworthiness" and "wilful misconduct"? "Privity" requires that the assured knew about the unseaworthiness of the ship or the condition of the thing likely to cause harm.¹⁶⁴ As Buckley LJ defined it, "actual fault and privity" demands:¹⁶⁵

... something personal to the owner, something blameworthy in him, as distinguished from constructive fault or privity such as the fault or privity of his servants or agents. But the words 'actual fault' are not confined to affirmative or positive acts by way of fault. ... It is not necessary to shew knowledge. If he has means of knowledge which he ought to have used and does not avail himself of them, his omission so to do may be a fault, and, if so, it is an actual fault and he cannot claim the protection of the section.

Actual fault and privity therefore should be limited to the owner's own blameworthy conduct, rather than any wrongful deeds committed by servants or agents. It could include wilful blindness where the owner could have ascertained the true state of affairs if only he had asked. That knowledge could be inferred to the owner, for example, if the *ego* or controlling mind of a company had actual fault or privity.¹⁶⁶

Whether or not the shipowner had been guilty of some "actual fault or privity", the insurer would be entitled to enjoy the CLC Convention 1969 limits of liability.¹⁶⁷ Insurers would be entitled to invoke any of the defences that the owner would have been entitled to, and would have the additional defence that the shipowner had been

¹⁶² 1957 International Convention Relating to the Limitation of the Liability of Owners of Seagoing Ships and Protocol of Signature, [1981] ATS 2 (opened for signature 10 October 1957, entered into force 31 May 1968), art. 1(1).

¹⁶³ International Maritime Organization, *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, "Observations and Proposals of Governments Concerning Draft Articles on Civil Liability for Oil Pollution Damage", LEG/CONF/4, art. V at 479-480.

¹⁶⁴ Howard N Bennett *The Law of Marine Insurance* (2nd ed, Oxford University Press, Oxford; New York, 2006) at 577-578.

¹⁶⁵ *Asiatic Petroleum Co.v Lennard's Carrying Co* [1914] 1 KB 419 (CA) at 432.

¹⁶⁶ Gotthard Gauci *Oil Pollution at Sea: Civil Liability and Compensation for Damage* (Wiley, Chichester, England; New York, 1997) at 167; *The Lady Gwendolen* [1965] 1 Lloyd's Rep 335.

¹⁶⁷ CLC Convention 1969, art. VII(8).

guilty of “wilful misconduct.” The concept of wilful misconduct appears mainly in insurance law, and applies to circumstances where:¹⁶⁸

... the assured intended to achieve a loss or the damage or that he was recklessly indifferent whether such loss or damage was caused and that his immediate purpose was to claim on his insurers or that he subsequently advanced such a claim.

The wilful misconduct exception was intended to protect insurers from both the negligent shipowner who carelessly sent an unseaworthy vessel to sea, and the criminal who fraudulently or recklessly destroyed their own vessel to perpetrate insurance fraud.¹⁶⁹

Direct action against insurers is generally only allowed where the plaintiff has obtained a judgment or an arbitral award against the assured and a winding up order for that company.¹⁷⁰ The general rule in insurance is “pay to be paid”, however. This creates an obstacle to direct action, because it requires the assured to pay any creditor’s claims before being indemnified himself. A creditor may not obtain direct action as that would create a paradox where the creditor would have to pay their own debt before being indemnified by the insurer.¹⁷¹ These finer points of insurance law had the potential to complicate some of the easy assumptions that were being made at the Brussels Conference.

7.2.2 Finalizing the CLC Convention 1969

The CLC Convention 1969 represents a remarkable achievement in international diplomacy and demonstrates what a highly motivated group of people can achieve when given a clear objective and a limited space of time. Yet so much time was spent on debating the issue of a compensation fund that there had been little discussion of specifics. Decisions had to be quickly made the meaning of terms such as pollution damage and preventive measures, the categories of damage and types of ships and oil that would be covered. As little time remained, these vital

¹⁶⁸ *Lewis v Great Western Railway Co* (1877) 3 QBD 195 (CA) at 213; Bennett *The Law of Marine Insurance*, above n 98, at 455.

¹⁶⁹ At 458.

¹⁷⁰ Alexandra Mandaraka-Sheppard *Modern Maritime Law* (2nd ed, Cavendish, London, 2007) at 874–875.

¹⁷¹ *The Fanti and Padre Island* [1990] 2 Lloyd’s Rep. 191 (HL).

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discussions were by necessity rather perfunctory, but still indicated the basic direction the CLC Convention 1969 would take.

The Draft CLC Convention contained only broad general definitions of pollution damage and preventive measures. For France it was clear that the convention should include damage from fire and explosion as it would be “immoral” to exclude or limit personal injury claims, especially if lives had been lost.¹⁷² The Netherlands suggested that it should include loss or damage caused by the preventive measures themselves, for example, the harm dispersant spraying might cause to marine life.¹⁷³ For the United Kingdom, the priority was to ensure that claims would be restricted to the damage actually caused by oil pollution.¹⁷⁴

Ireland pointed out that providing for different limitations and rules of liability in the CLC Convention could bring it into conflict with the 1957 Limitation Convention.¹⁷⁵ A pollution damage claim might be made in the jurisdiction where the damage occurred, and there could be a separate action for personal injury and collision damage in the country where the ship was arrested.¹⁷⁶ The CLC Convention 1969 ensured that actions could only be brought in the courts of the Contracting State whose territorial waters were affected, and only those national courts would have competence to decide how limitation funds should be distributed.¹⁷⁷ Ingram quite rightly points out that the decision to discard the “hallowed maritime practice of having a choice of many jurisdictions in which to sue” was a result of the difficult time the United Kingdom and French authorities had in bring the owners of the *Torrey Canyon* to court.¹⁷⁸

As for defences, the shipowner would escape liability when the damage was wholly caused by the negligence of the government in maintaining lights or other navigational aids.¹⁷⁹ In addition, the shipowner had a defence if they could prove

¹⁷² International Maritime Organization, *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, at 446.

¹⁷³ At 455.

¹⁷⁴ At 456–457.

¹⁷⁵ At 449–451.

¹⁷⁶ At 450.

¹⁷⁷ CLC Convention 1969, art. IX.

¹⁷⁸ Ingram “Oil Pollution and *Rylands v Fletcher*”, above n 22, at 184.

¹⁷⁹ CLC Convention 1969, art. III(2)(c).

that the pollution damage was caused by the intentional or negligent act or omission of the claimant.¹⁸⁰ If damage was caused by more than one ship, and the damage was not “reasonably separable”, then the owners would be considered jointly and severally liable. Liability would still be capped at 2000 francs per ton of ships tonnage to a maximum of 210 million francs, so long as the shipowner had not committed some disqualifying act.¹⁸¹

Theoretically, all that remained to be done was to agree upon the compensation fund’s terms and conditions. A further Fund Convention conference was scheduled to meet in 1971, and this would provide reluctant delegates with another opportunity to challenge strict liability and other basic tenets of the CLC Convention 1969.

7.2.3 The Fund Convention 1971

It is very likely that the 1969 Brussels Conference would have failed if the delegates had not agreed on the necessity for an additional oil industry-fed compensation fund. The Resolution on the Establishment of an International Compensation Fund for Oil Pollution Damage tasked a working group with a range of questions regarding the Fund’s organization and management.¹⁸² The great task was to decide whether the Fund Convention’s terms should mirror those in the CLC Convention, or whether it should provide cover in all circumstances where people suffered oil pollution damage from shipping. Too much liability would imperil the Fund’s existence, too little would undermine its legitimacy.

In broad terms, the Working Group recommended a \$30m USD Fund, funded by cargo owners, and administered by some existing international organization. The Working Group stated that:¹⁸³

... the purpose of the Fund should be the complete compensation of the victims and therefore it should intervene not only beyond the liability but also

¹⁸⁰ Article III(3).

¹⁸¹ Articles. IV-V.

¹⁸² Wu *Pollution from the Carriage of Oil by Sea: Liability and Compensation*, above n 26, at 77; International Maritime Organization *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, “Report of the Working Group on the 'Fund'”, LEG/CONF/C.2/WP.25 at 604–609.

¹⁸³ At 607.

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in the absence of the liability of the ship ... [but it] reserved examination of the case if the victim was at fault and excluded acts of war, hostility, civil war, insurrection or cataclysms of an exceptional nature.

Article 2(a) of the Fund Convention 1971 stated that the IOPC Fund must aim “to provide compensation for pollution damage to the extent that the protection afforded by the Liability Convention is inadequate”. Article 4 stated that the Fund’s liability would arise in three possible scenarios: “because no liability for the damage arises under the Liability Convention”; because the liable shipowner or its insurer was “financially incapable of meeting his obligations in full” and after the persons suffering damage had not been sufficiently compensated even after taking all reasonable steps to pursue their legal remedies; and if the damage exceeded the owner’s CLC Convention 1969 limits of liability. As well as that, the shipowner itself could make a claim for reimbursement for any expenses it had incurred for preventing and minimizing pollution damage.¹⁸⁴

The extent of the Fund’s liability can be illuminated by the discussion around the issue of the “Act of War” and “Act of God” defences. These exceptions to liability conjure images of tankers being blown apart by terrorists or torpedoed by submarines, or whole ships and even fleets swallowed by hurricanes or overwhelmed by great tsunamis. The point is that these are forces and events that are so far beyond any person’s control, that it would not be reasonable to hold the shipowner responsible. The question then was whether or not the Fund Convention should take the shipowner’s place, and provide relief in any and all circumstances.¹⁸⁵

The United States strongly opposed both the Act of War and the Act of God defence, saying that the “innocent victims of pollution damage” should never be denied relief, and all “costs should be borne by those producing, transporting and consuming the oil.”¹⁸⁶ The French delegate, Mr Douay, pointed out that other

¹⁸⁴ Fund Convention 1971, art. 4(1).

¹⁸⁵ See also Hui Wang *Civil Liability for Marine Oil Pollution Damage: a comparative and economic study of the international, US and the Chinese compensation regime* (Kluwer Law International, The Netherlands, 2011) at 103–108.

¹⁸⁶ International Maritime Organization, *Official Records of the International Legal Conference on Marine Pollution Damage, 1969*, above n 7, CONF.2/3 at 62.

international conventions excluded war damage, in particular those dealing with nuclear materials, and that to do so would place too great a burden on the Fund.¹⁸⁷ The Belgian delegate added that insurance companies would not cover war damage, to which the United States delegate replied that it was all the more reason for the Fund to fill that gap.¹⁸⁸ The Act of War proposal was defeated by 25 votes to ten with 7 abstentions, with the result that Article 3 excluded the Fund from responsibility for the costs of pollution damage from acts of war.¹⁸⁹ This decision proved fortunate, as oil tankers were deliberately targeted during the Iran-Iraq war of the 1980s, and Iraqi forces destroyed approximately 700 oil facilities during their retreat from Kuwait in 1991, causing the largest oil spill in history.¹⁹⁰

The Greek proposal that the Fund should not be held liable for Acts of God was defeated, however.¹⁹¹ Referred to in French law as *cas de force majeure*, the defence holds that there should be no liability for natural occurrences of such a great and devastating scale that they could not be avoided by even the most conscientious shipowner. Mr Kennedy from Canada put it that the Fund should pay for natural disasters, just as Canadian and American farmers could seek crop-insurance against hail damage, as “that was precisely the sort of risk which by very definition the Fund should cover.”¹⁹² The exasperated United States delegate exclaimed that if “the number of cases where there was no obligation were continually increased, they would soon reach a position where the Fund’s only expenses were its running costs: would it then still deserve to be called a Compensation Fund?”¹⁹³ The delegates accepted the argument, and the Fund would pay for pollution damage resulting from Acts of God, up to a maximum of 450 million francs.¹⁹⁴

¹⁸⁷ LEG/CONF.2/C.1/SR.5 at 342.

¹⁸⁸ At 345.

¹⁸⁹ At 347.

¹⁹⁰ FV Russo, Jr “Targeting Theory in the Law of Armed Conflict at Sea: the Merchant Vessel as Military Objective in the Tanker War” in I F Dekker and others (eds) *The Gulf War of 1980-1988: the Iran-Iraq War in International Legal Perspective* (Martinus Nijhoff; Distributors for the US and Canada, Kluwer Academic Publishers, Dordrecht; Boston: Norwell, MA, USA, 1992) 153 at 185; Lawrence Freedman and Efraim Karsh *The Gulf Conflict 1990-1991: Diplomacy and War in the New World Order* (Faber and Faber, London, 1994) at 342; Anne Casselman “10 Largest Oil Spills in History” *Popular Mechanics* (7 May, 2011) <www.popularmechanics.com> (accessed 6 November 2015).

¹⁹¹ International Maritime Organization, *Official Records*, above n 7, “Summary Record of the Sixth Meeting”, LEG/CONF.2/C.1/SR.6 at 347.

¹⁹² At 348.

¹⁹³ CONF.2/C.1/SR.10 at 376.

¹⁹⁴ Fund Convention 1971, art. 4(4)(b).

The International Oil Pollution Compensation Fund (“IOPC Fund” or “Fund”) was established only after the Fund Convention 1971 came into force in 1978, was involved in 149 incidents and paid out over £567m.¹⁹⁵ The Fund Convention 1971 ceased to be in force from 24 May 2002, after the number of participating Member States fell below 25.¹⁹⁶

7.3 Concluding Remarks

While the *Inverpool* showed the flaws of the fault-based tort system, the *Torrey Canyon* case demonstrated the need for an international agreement on a more just liability and compensation regime for oil spills from shipping. There had to be some standardized process for bringing shipowners before a court, for determining the specifics of liability, and to ensure the availability of suitable and adequate compensation. Yet, even with strong impetus and broad agreement that a new regime was called for, the Brussels conference very nearly failed to achieve its objectives. It was only after the United Kingdom delegation threw its support behind the Belgian proposal of strict liability, channelled to the shipowner, and backed up by mandatory insurance and an oil industry-fed compensation fund that the CLC Convention 1969 was able to be adopted. The 1971 Fund Convention conference would reveal further sources of disagreement, and the overall concern was that if the Fund accepted too great a scope of liability, then its contributing states could withdraw their support. On the other hand, if there were too many exceptions to liability, then the regime would lose its legitimacy.

The decisions that were made at those two conferences decided the ultimate shape of the CLC and Fund Conventions, but they have had far reaching consequences for other environmental damage regimes. As the previous chapters explained, the New Zealand’s offshore petroleum liability regime uses definitions from the

¹⁹⁵ International Oil Pollution Compensation Funds “Funds Overview” (2015) IOPC Funds <www.iopcfunds.org> (accessed 6 November 2015); Liliana Monsalve “Handling of Environmental Claims by the IOPC Funds” (3rd ELD Stakeholder Workshop, Management Centre Europe, 2014) <www.ec.europa.eu> (accessed 6 November 2015).

¹⁹⁶ International Oil Pollution Compensation Funds *Liability and Compensation for Oil Pollution Damage: Texts of the 1992 Civil Liability Convention, the 1992 Fund Convention and the Supplementary Fund Protocol* (International Oil Pollution Compensation Funds, 2011) at 3.

shipping conventions, but it has abandoned channelling, seeking to capture as many possible owners and operators of offshore installations as possible, their liability is unlimited, and the mandatory insurance obligations have been inadequate for some time. These choices may have been the result of a lack of forethought, or, more likely, because it was a compromise forced upon legislators by the lack of an appropriate international offshore liability and fund convention.

Owners and operators face strict liability under the MTA, but that liability is not absolute. Owners of marine structures and persons in charge of marine operations may not be held wholly or partially liable in circumstances where the damage or costs of preventive measures were due to an Act of War or an Act of God, a third party act or omission, the government's or other person's negligence in the maintenance of lights or navigational aids, or the claimant's contributory negligence.¹⁹⁷ These defences were adopted from the maritime law of the time and were incorporated into the CLC and Fund Conventions in order to protect the IOPC Fund from overwhelming compensation claims. In New Zealand there is no compensation fund, so any successful defence would only shift those costs to the New Zealand government or public, however. An argument could be made that offshore operators should be subject to absolute liability, though it would be necessary to consider the impact that this would have on the availability of insurance.

What the drafters of the CLC and Fund Conventions could not anticipate was how the Conventions would operate in practice, and how national courts would react. For one thing, it would quickly become apparent that the Conventions' limits of liability and compensation were inadequate to cover the costs of ever-larger and more complex tanker accidents. For another, national courts would push the boundaries of pollution damage liability, especially in relation to environmental damage per se claims. As these claims grew in expense and complexity, the IMO realised that there was a need to increase the limits of liability and compensation, while at the same time amending the Conventions' fundamental definitions. A further conference would be convened in 1984, producing a pair of amending

¹⁹⁷ Maritime Transport Act 1994, ss 385E-385F.

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Protocols which would form the basis of the 1992 CLC and Fund Conventions which are in force today.

8 Creating the 1992 CLC and Fund Conventions

The Fund Convention 1971 had not even come into force on March 16 1978, when the *Amoco Cadiz* sank spilling 223,000 tonnes of oil and contaminating 500 kilometres of Brittany coastline.¹ Amoco Transport set up a limitation fund of 77,371,875 French Francs, but clean-up costs and pollution damage claims mounted to \$800 million USD. Then on March 7 1980, the *Tanio* spill, a mere 13,500 tonnes, contaminated more than 200 kilometres of the same Brittany coastline costing 527 million French Francs to restore. The one bright point was that the sinking of the *Amoco Cadiz* convinced the French government to accede to the Fund Convention 1971, and with that the Fund Convention 1971 had the 14 Member State quorum needed to come into force.²

The CLC and Fund Conventions were designed to cope with damage from tankers with the 120,000 tonne capacity of the *Torrey Canyon*, but since then supertankers had undergone a dramatic technological evolution. To give a sense of the rapid pace, the *Glueckauf*, built in 1886, and weighing just 3,060 tonnes, would have fit comfortably inside of the fuel bunker of an Ultra Large Crude Carrier like the 1978 *Batillus*.³ The exponential growth in tanker size was driven by two economic and political factors. First, global oil production grew from 524 million tonnes in 1950 to 3,049 million tons in 1977, and, secondly, the Suez Canal had again been closed following the 1967 Six Day War, another of the episodic Arab-Israeli wars to rack Israel and the Sinai peninsula.⁴ This forced tankers to again take the long route around Africa to European markets. Fewer, larger ships meant lower transportation costs and, by 1976, there were 689 supertankers, 46 of which weighed more than 300,000 tonnes. Larger ships may have meant larger accidents, but the large expense of the *Tanio* demonstrated that there was no linear relationship between

¹ Chao Wu *Pollution from the Carriage of Oil by Sea: Liability and Compensation* (Kluwer Law International, London ; Boston, 1996) at 133.

² Hui Wang *Civil Liability for Marine Oil Pollution Damage: a comparative and economic study of the international, US and the Chinese compensation regime* (Kluwer Law International, The Netherlands, 2011) at 132–133.

³ Nina von Borries “The International Convention on Civil Liability for Oil Pollution Damage and Recklessness” (PhD Dissertation, Universität Hamburg, 2009) at 66–67.

⁴ Wu, above n 1, at 134.

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spill size and expense. What was clear, however, was that the cost of tanker spills was exceeding the CLC and Fund Conventions' limits of liability and compensation.

National courts were proving more willing to pierce shipowner's limited liability protections, but oil importers believed that the shipowner's limits of liability were still too low and had shifted too much of the financial burden onto the Fund and its major contributing countries.⁵ The IOPC Fund Assembly suggested that compensation levels should be raised to 675 million francs, and the P & I Clubs were now able to offer reinsurance of up to \$300m USD, so there was no reason not to amend the limits of liability and compensation.⁶

As this chapter will explain, the driving issue of the day was about how to quantify losses, especially when the award was directed at damage that may have been caused to the environment itself. Where the 1969 Convention's definition of pollution damage had focussed on property damage and costs of preventive measures, the new pollution damage definition would include claims for losses of profits caused by the impairment of the environment, and the reasonable costs of reinstatement of the environment. At the same time, it would seek to exclude more ambitious and hypothetical environmental damage valuation methodologies.

The 1992 Conventions provide the definitions which are in use force in New Zealand's current marine pollution damage liability regime today, and therefore it is these definitions which govern the liability that the owners and operators of offshore petroleum exploration and extraction installations and operations face if they cause an offshore oil spill. New Zealand's Ministry of Transport initially considered reasonable measures of reinstatement of the environment to be too indirect to be included in the new offshore installation financial assurance regime. This means that offshore owners and operators may not have to provide insurance to cover such claims, and may not have the funds to reinstate the environment should that become necessary following an offshore oil well disaster.

⁵ At 132–133.

⁶ International Oil Pollution Compensation Fund "Report on the Activities of the International Oil Pollution Compensation Fund During 1978 and 1979" (1980) <www.iopcfunds.org> (accessed 22 September 2016); Wu, above n 1, at 134–135.

It follows that it is very important to consider how that definition came to be, and how the law values damage to the natural world itself. These continuing developments in the CLC and Fund Conventions' treatment of oil pollution damage caused by shipping have also informed the EU's treatment of environmental damage caused by offshore petroleum exploration and extraction activities, as the ELD was intended to cover just the kinds of pure environmental values that the EU Member States' existing property and tort laws neglected to protect. By understanding how the 1992 CLC and Fund Conventions have developed to treat environmental damage caused by ship-source oil spills, we can make informed decisions about how New Zealand and the EU should treat environmental damage caused by offshore oil spills.

8.1 Environmental Damage Per Se Claims under the CLC and Fund Conventions

One of the key features of the CLC and Fund Convention regime is that the courts of the affected Contracting State have exclusive competence to determine the scope, quantity and distribution of compensation claims from both the shipowner and the IOPC Fund.⁷ The shipowner and the IOPC Fund have standing to challenge those awards, but must accept the courts' final judgments. Two widely separated cases indicated a strong trend amongst national courts towards judicial recognition of environmental damage per se claims, providing a fresh and unexpected challenge to the Fund's compensation limits.

Environmental damage per se claims concern damage to the environment itself; land, water, or species which are considered common property. Unlike traditional property damage claims, there is no individual owner with standing to bring a claim. Furthermore, the land, water or species affected may not be subject to market forces. For example, seabirds may form a vital part of the marine and coastal ecosystem, but there is no market for seagull meat, so technically seagulls are worthless. The lack of an owner, or a clear market value, presents the court with a quandary. It must establish that the state, or some organization or individual has the standing to

⁷ CLC Convention 1969, art. IX; Fund Convention 1971, art. 7.

bring a claim, and it must find a system for measuring, quantifying and monetising the loss outside of the price signals normally sent by a free market.

The first case involved the *Zoe Colocotroni*, which grounded in Puerto Rico in 1973, and the second was about the *Antonio Gramsci*, which sank off the coast of Latvia in 1979. Even though the United States is not a party to the CLC and Fund Conventions, and therefore the case of the *Zoe Colocotroni* is outside of the liability and compensation system, both cases involved the use of hypothetical models to quantify and monetise environmental damage, resulting in awards that their critics would see as punitive and symbolic, not restorative. Both cases played a central role in the debate around the formation of the 1984 Protocols and their redefinition of accepted terms of pollution damage liability.

8.1.1 The *Zoe Colocotroni*

The *Zoe Colocotroni* was a tramp oil tanker which ran aground three and a half miles off the coast of Puerto Rico on March 18 1973.⁸ Just as in the case of the *Inverpool*, the Captain sought to save the ship by discharging its cargo of more than 5000 tonnes of crude oil onto an area of shoreline known as Bahia Sucia. The case centred on how the court might quantify damage when it was caused to an area of great natural beauty, with significant biodiversity, but without a great deal of commercial value.

The immediate cause of the accident was that the ship's crew was "hopelessly lost", and the United States District Court for the District of Puerto Rico found that the ship was unseaworthy which barred the owners from seeking the protection of the United States Limitation of Liability Act.⁹ As the damage was caused to a publicly owned area of coastline, no person had standing to claim that they had suffered an actionable harm to their own property. However, the Court applied the *parens patriae* doctrine, which holds that the state has:¹⁰

⁸ *Comm. of Puerto Rico v SS Zoe Colocotroni*, 628 F 2d 652, 656 (1980); Kevin T Grady "Commonwealth of Puerto Rico v SS Zoe Colocotroni: State Actions for Damage to Non-Commercial Living Natural Resources" (1980) 9 B.C. Env'tl. Aff. L. Rev 397.

⁹ *Commonwealth of Puerto Rico and the Environmental Quality Board of the Commonwealth of Puerto Rico v The SS Zoe Colocotroni*, (1978) 456 F Supp 1327, at 1333–1336.

¹⁰ At 1337; Peter Spiller and GW Hinde *Butterworths New Zealand Law Dictionary* (8th ed, LexisNexis NZ, Wellington, NZ, 2014) at 216, Latin: "Parent of his country".

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... a sovereign interest in the general welfare of its citizens which transcends any injury which may be caused to its proprietary interests or to the property of its individual citizens. Particularly when a nuisance of disastrous proportions occurs such as in the case of a maritime oil spill, the special status of the body politic vis-a-vis its citizens gives rise to a right to seek redress on behalf of the collective community which is not limited to the abatement of the nuisance but which can allow for recovery for damages by the body politic.

The effect of the doctrine is that unlike in private or public nuisance claims, there is no need to find a property owner who has suffered any particular damage, or that any individual member of the public, or sector of the public, had suffered a nuisance.¹¹ It was the collective community interest that had been offended and this gave the Commonwealth standing to seek damages.

How then should damages be calculated? Before the accident, Bahia Sucia had been “a healthy functioning estuarial ecosystem, typical of those found in the southern coast of Puerto Rico and similar tropical environments.”¹² The United States Coast Guard and various Commonwealth agencies had made use of booms, pumps, bulldozers and even bailing by hand, but oil could still be found amongst the mangroves five years after the incident.¹³ Scientific surveys provided by the plaintiffs estimated the loss of some 92,109,720 marine animals.¹⁴ Replacing those animals from biological supply laboratories would cost at least be at least \$0.06 USD per individual animal, with some species selling for between \$1.00 and \$4.50 USD. The Court accepted the \$0.06 USD valuation, and multiplying by the nearly one hundred million lost animals, with the added costs of the preventive and environmental reinstatement measures, found for the plaintiffs in the amount of \$6,164,192.09 USD, with interest of 6% and additional civil penalties of \$7,500 USD.¹⁵

¹¹ Michael Mason “Transnational Compensation for Oil Pollution Damage: Examining Changing Spatialities of Environmental Liability” (2002) London: LSE Research Online <www.eprints.lse.ac.uk> at 9.

¹² *Commonwealth of Puerto Rico v the SS Zoe Colocotroni* (1978), above n 9, at 1339.

¹³ At 1340–1344.

¹⁴ At 1344–1345.

¹⁵ *Comm. of Puerto Rico v SS Zoe Colocotroni* (1980), above n 8, at 659.

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In the Court of Appeal, the Colocotroni brothers claimed that the District Court erred in failing to apply the common law's "diminution in value" rule.¹⁶ Damages should have been calculated with reference to the \$5000 USD per acre prices comparable properties were sold for on the local property market, and damage to five acres could not possibly exceed this \$30,000. The Court responded rather drily that:¹⁷

We believe that [the] defendants have misconceived the character of the remedy. The EQB [Puerto Rican Environmental Quality Board] is not concerned with any loss in the market or other commercial value of the Commonwealth's land. In point of fact, the EQB concedes the land has no significant commercial or market value.

What mattered was whether the EQB had the statutory power to award damages other than on the traditional basis. The implication of federal statutes, like the Clean Water Act 1972, was that valuation was not to be used for purely compensatory purposes, and was only one element of any practical environmental restoration plan.¹⁸ A market valuation would "deny the state any right to recover meaningful damages for harm to such areas, and would frustrate appropriate measures to restore or rehabilitate the environment."¹⁹ It was never going to be practical or even possible to replant the damaged mangroves, or to replace the now oil soaked land, and the plaintiffs had no intention to actually purchase 92 million invertebrate animals, so awarding damages on that scale would be unfairly punitive. The Court of Appeal concluded that the award should be vacated until the full extent of damage was known, and a reasonable restoration plan could be put in place.

8.1.2 The Antonio Gramsci

The *Antonio Gramsci* grounded in the Baltic Sea off the coast of Ventspils, Latvia, USSR, on the 27th of February 1979, spilling 5,500 tonnes of crude oil.²⁰ By the 2nd of April, the oil had spread as far as the Swedish Archipelago near Stockholm, polluting some 4,000 islands. The defendant state-owned Latvian Shipping

¹⁶ At 672.

¹⁷ At 672.

¹⁸ At 677.

¹⁹ At 672-673

²⁰ International Oil Pollution Compensation Fund *Information on and Approval of Settlement of Claims* (1980) FUND/EXC.2/5 at 2.

Company claimed that all the oil had either been recovered or burnt off or had remained in Soviet waters, but the Swedish government was able to provide analysis proving that the oil on the Swedish coast had the same chemical fingerprint as the oil from the stricken ship.²¹

The USSR Ministry of Waters asked for three times more damages than the claims by the Swedish, soaking up the bulk of the available limitation fund and thereby increasing the compensation claims against the Fund.²² The USSR claim was so large in part because it was based on a statutory formula known as the “methodica”. This estimates the volume of seawater that will be polluted by a given amount of oil, such that $Q = x/50 * 10^6 \text{ m}^3$ where Q is quantity of water, and x is the volume of oil spilled. If 1,100 tonnes of oil had been spilled from the *Antonio Gramsci*, then 22 million cubic meters of water were affected. Damages were then calculated by multiplying that figure by 2 Soviet Roubles. The total Soviet claim was therefore 48,331,535 Soviet Roubles, or £34,326,373 GBP.

The IOPC Fund’s response was to issue a 1980 Resolution stating that compensation would not be based on “an abstract quantification of damage calculated in accordance with theoretical models.”²³ The IOPC Fund’s Executive Committee affirmed this stance following a second spill from the *Antonio Gramsci* in 1987.²⁴ The IOPC Fund reached a very similar conclusion to that of the United States Court of Appeals in the *Zoe Colocotroni* case. Any award must go towards a plan for restoring the environment, and the amount must be directly related to the actual monies spent on preventing and remediating the damage. Compensatory or punitive damages which inflate the shipowner’s liability will only ultimately impact on the Fund, and that is contrary to the agreement between shipowners and cargo-owners which underpins the CLC and Fund Conventions.

²¹ At 4.

²² Michael Mason “Civil Liability for Oil Pollution Damage: Examining the Evolving Scope for Environmental Compensation in the International Regime” (2002) 27 *Marine Policy* 1 at 4.

²³ International Oil Pollution Compensation Fund *1st extraordinary session: Agenda item 16, “Record of Decisions”, Annex I, “Resolution adopted on 10 October 1980”* (1980) FUND/A/ES1/13 at 11.

²⁴ Gotthard Gauci *Oil Pollution at Sea: Civil Liability and Compensation for Damage* (Wiley, Chichester, England; New York, 1997) at 137–138.

8.2 *The 1984 Protocols and Environmental Damage Per Se Claims*

Cases like the *Zoe Colocotroni* and the *Antonio Gramsci* appeared to threaten to open the floodgates to further expensive damage claims at the same time as the increasing size and complexity of spills and oil spill responses challenged the Conventions' limits of liability and compensation. The newly renamed International Maritime Organisation ("IMO"), as the Inter-Governmental Maritime Consultative Organisation had come to be known, decided that the time was right to consider increase those limits and whether to redefine the terms of compensation.²⁵ The International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea, 1984, was convened to consider two new draft protocols; the "Draft Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 1969" and the "Draft Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1984."²⁶ The 1984 Protocols, as they shall be referred to, were never adopted, but they provided the substantive basis for the 1992 CLC and Fund Conventions, and influenced the IOPC Fund's thinking in the interim period.²⁷ The 1984 Protocols took eight years to come into force because they failed to attract the support of the United States of America. The United States wanted greater scope to address natural resource damages claims, higher limits of compensation, and to establish a national oil pollution damage fund. The 1989 sinking of the Exxon Valdez spurred the United States to adopt its own Oil Pollution Act 1990, however, and the CLC and Fund Convention regime would have to make do without further contributions from the United States.²⁸

It was on the 12th of January 1984, that the IMO's Legal Committee opened discussions into the terms "pollution damage", "preventive measures" and

²⁵ International Maritime Organization, *Official Records of the International Legal Conference on Marine Pollution Damage, 1969* (International Maritime Organization, London, 1973); *Official Records of the International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea, 1984 and the International Conference on the Revision of the 1969 Civil Liability Convention and the 1971 Fund Convention 1992* Vol 2 (IMO, London, 1993) CONF.6/57 at 49.

²⁶ *Official Records 1984*, Vol 1, LEG/CONF.6/4 and LEG/CONF.6/5

²⁷ Wu, above n 1, at 139.

²⁸ Oil Pollution Act, Pub. L. No 114-38, 33 USC § § 2701-2762 (1990).

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“incident”.²⁹ These discussions make it clear that the environmental damage per se claims in the *Zoe Colocotroni* and the *Antonio Gramsci* cases were at the forefront. One would expect that the IOPC Fund’s response would be a kneejerk rejection of environmental per se claims, but the actual result was more nuanced.

The Legal Committee proposed that pollution damage be defined as:³⁰

- (a) costs actually incurred as a direct result of contamination outside the ship resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur;
- (b) economic loss actually sustained as a direct result of contamination set out in (a);
- (c) actual costs of preventive measures and economic loss actually sustained as a direct result of such preventive measures

Poland proposed a text which added loss of life or personal injury, “impairment of the environment”, and the economic losses caused by that impairment.³¹ The problem for several delegations, including the observer from the Organization for Economic Co-operation and Development (“OECD”), was that “impairment of the environment” could not be assessed in dollar terms, and even if it could, no one had standing to sue on behalf of the environment.³² As the United Kingdom delegate vividly put it:³³

It would be best to insert a proviso that forms of damage considered excessive would be excluded. As for reinstatement of the environment, there should be a reference to compensation for reasonable measures actually undertaken or to be undertaken. Alternatively, a proviso could be inserted to exclude theoretical or abstract calculations of costs not actually incurred. Likewise, *environmental restoration costs should exclude so-called ‘bug-count’ damage, namely damage to resources of no exploitable value which would not be replaced* (emphasis added).

The term “bug-count damage” appears to be a direct reference to the way scientific surveys of lost animal life were used to calculate damages in the *Zoe Colocotroni*

²⁹ *Official Records 1984*, Vol 1 "Consideration of Draft Protocols to Revise the 1969 CLC and the 1971 Fund Conventions" CONF.6/7 at 136.

³⁰ LEG/CONF.6/4 at 58.

³¹ LEG/CONF.6/7 at 136.

³² LEG/CONF.6/7 at 141.

³³ Volume 2, LEG/CONF.6/C.2/SR.3 at 348-349.

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case. The Comité Maritime International (“CMI”) was also determined to prohibit “speculative claims for economic loss” based on hypothetical or arbitrary assessments of environmental harm.³⁴ For Mr Trotz from the German Democratic Republic:³⁵

It was necessary to make a choice: should one compensate for any loss in value of the environment resulting from the damage, or, conversely, limit compensation to reimbursement of costs reasonably incurred to restore the environment?

Mr Carly from Belgium agreed saying that, “one could surely not claim to be able to reconstitute the micro-organisms destroyed, it could only be a matter of cleaning up and letting nature do the rest.”³⁶

Ecological damage was an evolving concept that some argued was for national courts to define, but there was still a need for lucid terminology to remove as much ambiguity as possible.³⁷ The Legal Committee therefore agreed to turn the matter over to a Working Group, which produced two alternative drafts. Alternative I defined “pollution damage” as:³⁸

- (a) reasonable costs actually incurred or to be incurred, and other damage or loss, including loss of profit, actually sustained as a direct result of contamination outside the ship resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur; provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;
- (b) reasonable costs of preventive measures and damage or loss actually sustained as a direct result of such preventive measures.

The phrases “actually incurred”, “actually sustained”, and “direct result”, aimed to prevent speculative claims, but the British delegation complained that definition was too “overloaded with qualifying terms which had little meaning in certain

³⁴ Volume 1, LEG/CONF/6.7 at 140 and 143.

³⁵ Volume 2, LEG/CONF.6/C.2/SR.4 at 351-352.

³⁶ At 352.

³⁷ Volume 1, at 138.

³⁸ Volume 2, "Consideration of Draft Records to Revise the 1969 CLC and the 1971 Fund Conventions", LEG/CONF.6/C.2/2 at 188.

jurisdictions”.³⁹ For example, the words “direct result” would have excluded hoteliers’ consequential losses under French law. A proposal by the CMI to include the phrase, “diminution in value, if any”, was problematic too as, according to United Kingdom law, “the marine environment possessed no real value, since it could not be marketed, nor could the sea creatures or fish in it until they were caught”.⁴⁰

Alternative II limited damages claims to:⁴¹

- (a) loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur; provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;
- (b) the costs of preventive measures and further loss or damage caused by preventive measures.

It is worth noting that the Liberian delegate opposed this second draft with a reference to the *Zoe Colocotroni* case, saying that the CLC Convention 1969 had never been intended to compensate for environmental damage.⁴² The Malaysian delegate objected to the term “loss of profit”, because subsistence fishermen made very little profit, and he would have preferred the term “loss of income”.⁴³ Mr Holman, observer from the Friends of the Earth International, reminded the delegates that the sea was more valuable than the income that could be derived from it, but he supported Alternative II.⁴⁴ While the delegates spent more time in discussions, the important decision had already been made. Both alternatives rejected “speculative claims based on a theoretical model and included claims for restoration costs actually incurred.”⁴⁵ Alternative II was perceived to be simpler and

³⁹ “Summary Record of the Fifteenth Meeting”, CONF.6/C.2/SR.15 at 480.

⁴⁰ At 481.

⁴¹ Volume 2, at 188.

⁴² At 483.

⁴³ “Summary Record of the Fourth Meeting”, CONF.6/C.2/SR.4, at 479.

⁴⁴ “Summary Record of the Sixteenth Meeting”, CONF.6/C.2/SR.16, at 489.

⁴⁵ LEGCONF.6/V.2/SR.16 at 488.

more predictable, and the delegates approved it by a vote of 28 to 19 with 1 abstention.⁴⁶

As for the limits of liability and compensation, the delegates agreed to raise the shipowner's maximum liability to 3 million SDR, plus 420 SDR for every gross ton above 5,000 GRT, up to a maximum of 59.7 million SDR.⁴⁷ The new plan was for the IOPC Fund to create a second tier system of funding of between 135 million and 200 million SDR, but which would only be activated if the top three contributing states had imported at least 600 million tons of oil that year. This bore a striking resemblance to an earlier United States' proposal that Japan and South Korea had emphatically rejected, indicating that the IMO still fervently hoped to bring the United States on-board.⁴⁸ The failure to adopt the 1984 Protocols meant that the CLC and Fund Conventions 1969/1971 continued to provide the basis for pollution damage claims, but they did guide the IOPC Fund's thinking as it continued to be faced with claims ranging from the traditional to the ingenious, and some with strong environmental damage per se elements. The case of the *Patmos* provides further evidence of this tendency.⁴⁹

8.2.1 After the 1984 Conference: The *Patmos*

In 1985, the Greek tanker *Patmos* and the Spanish tanker *Castillo de Monte Aragon* collided, killing three men and spilling between 700 and 2,000 tonnes of oil into the Straits of Messina, between Sicily and Italy.⁵⁰ The Italian government lodged a claim against the Fund for £9.1 million, which the IOPC Fund's Director rejected on the grounds that the IOPC Fund's 1980 Resolution excluded abstract or hypothetical damages. The Court at Messina agreed, adding that the Italian Ministry of the Merchant Marine had no standing to claim for damage to areas in the *res*

⁴⁶ At 491.

⁴⁷ "Consideration of Draft Protocols to Revise the 1969 CLC and the 1971 Fund Conventions", LEG/CONF.6/C.2/WP.44 at 310 and LEG/CONF.6/C.2/SR.29 at 621.

⁴⁸ Wu, above n 1, at 165–166.

⁴⁹ Marie-Louise Larsson *The Law of Environmental Damage: Liability and Reparation* (Kluwer Law International; Norstedts Juridik, The Hague; Boston: Stockholm, 1999) at 195.

⁵⁰ French Robert "Compensation for Marine Pollution" [2007] FedJSchol 23 at [69]; Angelo Merialdi "The *Patmos* and Haven Cases: Recent Developments" (1994) 9 Int'l J Marine & Coastal L 389 at 389; *Information on and Approval of Settlement of Claims (Patmos Incident)* (1 September, 1989) FUND/EXC22/2.

communes omnium, or public domain. The Ministry did not own the coast, so it had not suffered any compensable loss.

The Italian Court of Appeal appointed a team of experts who calculated damages in a fashion similar to the Soviet Union's "methodica".⁵¹ The team estimated the volume of polluted water and the numbers of unborn fish resulting from that pollution, and then based its award on the market price for the uncaught fish. A second report would concede that the team's "conclusions were only hypothetical and not confirmed by factual evidence", and the court would have to make its own valuation.⁵² Yet the Court of Appeal only rejected the experts' calculations because the market price used had been too high. By correcting for the actual market price for fish at the time of the spill, the Court was able to use the formula to award the Italian Government the sum of £837,000.

As for the standing question, the Court of Appeal stated that:⁵³

Under the Civil Liability and Fund Conventions the term 'pollution damage' embraces deterioration and destruction in whole or in part of the environment and includes any damage caused to the coast and to the interest of the coastal states which related to the environment, such as interest in the preservation of marine biological resources, both insofar as fauna and flora are concerned.

Therefore, just as in the case of the *Zoe Colocotroni*, the Court held that the state had standing because it has a legitimate interest in preserving its coastal marine environments. For its part, the IOPC Fund decided not to appeal, as the amount payable was within the shipowner's limit of liability, and, in any event, the *Patmos*' flag state was not a party to the Fund Convention.

⁵¹ Gauci, above n 24, at 127–128; International Oil Pollution Compensation Funds *Annual Report 1993* (IOPC Fund, London, 1993) <www.iopcfunds.org> (accessed 22 October 2015) at 25; International Oil Pollution Compensation Funds *Record of Decisions of the Thirty Eight Session of the Executive Committee* (1994) FUND/EXC38/9 at 2–3.

⁵² Gauci, above n 24, at 128; International Oil Pollution Compensation Funds *Annual Report 1993* (IOPC Fund, London, 1993) <www.iopcfunds.org> (accessed 22 October 2015) at 26.

⁵³ David Wilkinson "Moving the boundaries of Compensable Environmental Damage caused by Marine Oil Spills: The Effect of Two New International Protocols" (1993) 5 J. Env'tl L. 71 at 83; Marie-Louise Larsson *The Law of Environmental Damage: Liability and Reparation* (Kluwer Law International; Norstedts Juridik, The Hague; Boston: Stockholm, 1999) at 195, CMI Yearbook 1993 at 114.

8.3 *The 1992 CLC and Fund Conventions*

Cases like the *Patmos* and the escalating costs of ever larger tanker spills showed that the problems the 1984 Protocols had addressed had not abated and it would be necessary to convene a further conference to revisit the question. In his opening statement at the subsequent 1992 conference, Mr O’Neil, Secretary-General of the IMO called the conventions a “globally effective regime”, but one where the compensation levels were “gradually become less adequate”.⁵⁴ The answer, according to the intersessional working group, was that the 1984 Protocols could and should be adopted almost in their entirety.⁵⁵

The new pollution damage and preventive measures definitions still posed challenges that the IOPC Fund would have to address. As early as 1994, the IOPC Fund began reassessing its views about the difference between quantifiable and unquantifiable losses. The Seventh Intersessional Working Group reported that quantifiable losses meant the “reasonable costs of reinstatement of the damaged environment” and losses of profits if they were suffered by “fishermen, hoteliers and restaurateurs at seaside resorts.”⁵⁶ However, it stated that any attempt to use environmental valuation methodologies to quantify damage to non-commercial natural resources would be “highly theoretical and speculative, and give inconsistent and arbitrary results.”⁵⁷ The first priority was to return the affected area as near as possible to its baseline condition, but the general view was that there were “limits to what man could actually do in taking measures to improve on the natural process.”⁵⁸

⁵⁴ International Maritime Organization *Official Records of the International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea, 1984 and the International Conference on the Revision of the 1969 Civil Liability Convention and the 1971 Fund Convention, 1992 Vol 4* (IMO, London, 1993), CONF.9/RD/1 at 149-150.

⁵⁵ David Wilkinson “Moving the boundaries of Compensable Environmental Damage caused by Marine Oil Spills: The Effect of Two New International Protocols” (1993) 5 J. Envtl L. 71 at 78; International Maritime Organization *Official Records 1984, Vol 4*, “Consideration of a Draft Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 1969, LEG/CONF.9/3 at 44.

⁵⁶ International Oil Pollution Compensation Fund *Report of the Seventh Intersessional Working Group*, (20 June, 1994) FUND/WGR7/21 at 12–13.

⁵⁷ At pt 3.

⁵⁸ International Oil Pollution Compensation Funds *Criteria for the Admissibility of Claims for Compensation: Environmental Damage*, (1994), FUND/WGR7/9/3 at 14.

The 1996 IOPC Fund *Claims Manual* was the first manual to explain that, under 1992 Fund Convention's guidelines, reinstatement measures must be reasonable, proportionate to the results achieved, and have a reasonable prospect of a successful outcome.⁵⁹ The problem is that a decision about remediation measures depends upon a multitude of factors, including predictions about how the affected area will respond well into the future.⁶⁰ Clean-up is carried out by commercial businesses, and the feeling was that an open ended definition could invite unnecessarily gold plated reinstatement measures. Strangely, at least as of 2009, there appeared to have been virtually no successful claims for reinstatement of the environment.⁶¹ The sinking of the *Erika* in 1999 did prompt a claim from the union of salt producers that the incident had caused a "proliferation of harmful animals and plants."⁶² That claim was rejected after a professor from the Laboratory of Marine Biology in Nantes concluded that the proliferation had been caused by heavy rains, and not by the oil contamination.

The IOPC Fund has been averse to proposals that it should fund compensatory restoration measures aimed at developing alternative habitats to compensate for a loss of biodiversity. In 2001, the French supported the proposal to develop a third tier supplementary fund, in part because it could be used to fund compensatory restoration.⁶³ ITOPF, the International Tanker Owners Pollution Federation Limited, opposed the proposal asserting that marine habitats recover very quickly on their own, and that introducing new species or habitats would only upset the "natural balance of existing ones."⁶⁴ Japan and Korea also opposed compensatory restoration as it imposed "higher costs for spurious or negligible benefits."⁶⁵ The

⁵⁹ International Oil Pollution Compensation Fund 1992 *Claims Manual: 1996 edition* (Impact PR and Design Ltd, Kent; UK, 1996) at 32.

⁶⁰ von Borries, above n 3, at 85.

⁶¹ Hugh Parker and Gary Mauseth "Approaches to Environmental Damage Claims" [2009] 194 *Gard News* 4; See also International Tanker Owners Pollution Federation *Admissibility of Claims for Compensation for Environmental Damage under the 1992 Civil Liability and Fund Conventions* (2001) 92Fund/WGR.3.

⁶² International Oil Pollution Compensation Funds *Incidents Involving the 1992 Fund: Erika* (6 February, 2006) 92FUND/EXC32/3 at 12.

⁶³ International Oil Pollution Compensation Fund 1992, Third Intersessional Working Group *Compensation for Environmental Damage under the Auspices of the CLC Fund Conventions: Documents Submitted by the French Delegation*, (2001) 92FUND/WGR3/8/8; Mason, above n 11, at 10.

⁶⁴ ITOPF *Admissibility of Claims under the 1992 CLC Convention*, above n 61, at 5; Gauci, above n 24, at 55; Mason, above n 11, at 10.

⁶⁵ Mason, above n 11, at 11.

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Fund Assembly decided not to put the question of compensatory restoration to a vote, even though it had the support of the majority.

More recently, the 2016 *Claims Manual* says that measures will be considered to be reasonable if they satisfy the following conditions:⁶⁶

- The measures should be likely to accelerate significantly the natural process of recovery.
- The measures should seek to prevent further damage as a result of the incident.
- The measures should, as far as possible, not result in the degradation of other habitats or in adverse consequences for other natural or economic resources.
- The measures should be technically feasible.
- The costs of the measures should not be out of proportion to the extent and duration of the damage and the benefits likely to be achieved.

The 2016 *Claims Manual* also speaks of the marine environment's great potential for natural recovery but says that as it is:⁶⁷

... virtually impossible to bring a damaged site back to the same ecological state that would have existed had the oil spill not occurred, the aim of any reasonable measures of reinstatement should be to re-establish a biological community in which the organisms characteristic of that community at the time of the incident are present and functioning normally.

Reinstatement should be applied to the existing habitat only, and therefore there is no requirement to create a new habitat to replace the one destroyed.⁶⁸

The IOPC Fund has also accepted that authorities should make use of expert post-spill studies so long as they are “carried out with professionalism, scientific rigour, objectivity and balance.”⁶⁹ Indeed, as early as 2001 the French had noted that post-spill studies had moved on from the days of the *Antonio Gramsci*, and were “no longer really abstract”.⁷⁰ The Fund itself would play an active role in making sure

⁶⁶ International Oil Pollution Compensation Fund 1992 *Claims Manual (October 2016 Edition)* (International Oil Pollution Compensation Funds, London, 2016) at [3.6.5].

⁶⁷ At [3.6.4].

⁶⁸ Gauci, above n 24, at 133.

⁶⁹ *Claims Manual 2016*, at [3.6.7].

⁷⁰ International Oil Pollution Compensation Fund 1992, Third Intersessional Working Group *Review of the International Compensation Regime: Compensation for Ecological Damage to be Paid by the International Compensation Regime* (8 March 2001) 92FUND/WGR3/5/6 at 3–4.

that only “appropriate techniques and experts are employed.”⁷¹ Damage estimates must be calculated using a “recognized and reliable economic model” that must be “derived from actual data closely associated with the loss claimed and taken from the relevant sector and industry.”⁷² Methods like contingent valuation, which bases values on surveys of peoples’ willingness to pay to protect the area, are rejected because the CLC and Fund Conventions do not recognise or compensate lost recreational activities, cultural, non-use, or heritage values.⁷³

Liliana Monsalve, Head of the IOPC Fund Claims Department since 2014, has said that Net Environmental Benefit Analysis (“NEBA”) will be a factor in determining whether the costs of reinstatement of the environment are reasonable, although that term does not appear in the 2016 *Claims Manual*.⁷⁴ Dr Ian White, Managing Director of ITOPF, has also written about NEBA in regards to decisions about the contingency planning for spill responses and the use of dispersants.⁷⁵ NEBA works by calculating the expected fish and seabed mortality, both in the water column and on the shoreline, for a given volume of oil, then assessing the cost and effectiveness of various remediation options, including mechanical recovery, in-situ burning and chemical dispersion.⁷⁶ The IOPC Fund can then choose to fund the best of the available options, or none of them if it determines that the marine environment will recover well enough on its own.

The IOPC Fund’s *Claims Manual (October 2016 edition)* now explains the types of damage that the IOPC Fund will compensate.⁷⁷ Under the heading, “What types of damage are covered”, it includes clean-up and preventive measures, property damage, consequential loss, pure economic loss, use of economic models,

⁷¹ *Claims Manual 2016*, above n 66, at [3.6.10].

⁷² At [1.4.11].

⁷³ Stephanie Chang and others “Consequences of Oil Spills: A Review and Framework for Informal Planning” (2014) 19 *Ecology and Society* 26 at 32; María Garza and others “Indirect Assessment of Economic Damages from the Prestige Oil Spill: Consequences for Liability and Risk Prevention” in *Disasters* (Blackwell Publishing, Oxford, United Kingdom, 2009) 95 at 96.

⁷⁴ Liliana Monsalve “Handling of Environmental Claims by the IOPC Funds” (3rd ELD Stakeholder Workshop, Management Centre Europe, 2014) <www.ec.europa.eu> (accessed 6 November 2015).

⁷⁵ Ian White “New Directions in Marine Pollution Control” (The International Tanker Owners Pollution Federation Ltd, paper presented to Shipping in the New Millennium, Brisbane, Australia, 17 March 1999) at 8.

⁷⁶ Odd Brude and Anne Langfjæran “Spill Response Modelling Based NEBA Approach” (paper presented to Interspill 2015 Conference Proceedings, Amsterdam, 24 March 2015) at 4.

⁷⁷ International Oil Pollution Compensation Funds *Claims Manual (October 2016 Edition)* (International Oil Pollution Compensation Funds, London, 2016).

environmental damage, and the use of advisers.⁷⁸ Clean-up costs might include compensation for cleaning and rehabilitating wildlife, and preventive measures must include the parts of the response that completely prevent oil contamination from occurring, so long as there was a grave and imminent threat of pollution damage. Property damage includes the “reasonable costs of cleaning, repairing or replacing property that has been contaminated by oil.”⁷⁹ Consequential losses refers to losses of earnings suffered by those whose property has been damaged, and specifically refers to fishermen whose nets have been contaminated by oil. Pure economic losses refers to those who lose earnings because their property has been damaged or their opportunities to carry out business activities have been diminished. For example, fishermen who lose access to fisheries, or restaurant or hotel owners who suffer loss of business through falling guest numbers. Preventive measures might include marketing campaigns aimed at restoring visitor numbers and averting business losses.

8.4 Concluding Remarks

The CLC and Fund Conventions 1969/1971 were established on the basis that shipowners and cargo-owners agreed to share the costs of oil pollution damage. The Conventions’ authors did their best to anticipate how national courts might respond, but appeared to have been taken aback by the outcomes of cases like that of the *Zoe Colocotroni*, the *Antonio Gramsci* and the *Patmos*. The 1984 Protocols were therefore drafted to expand the limits of liability and compensation to account for the increasing size and cost of tanker spills, but at the same time, to refine the concept of pollution damage liability itself to exclude abstract and hypothetical methodologies.

What is interesting is that, with the amendments, the IOPC Fund is now favouring methodologies not too far removed from those it criticized in the *Antonio Gramsci* and the *Zoe Colocotroni* incidents. The IOPC Fund now accepts that it will pay for scientific surveys aimed at quantifying environmental losses, but that does not mean

⁷⁸ At 13.

⁷⁹ At [1.4.7].

that it will pay for the costs of replacing those lost animals. Measures aimed at reinstating or accelerating environmental recovery must be reasonable, pragmatic and effective. The assumption is still that the environment will recover quickly enough on its own. The Director of the IOPC Fund supports Net Environmental Benefit Analysis, for example, because it demands that the costs and benefits of any human intervention must be justified in comparison with the option of taking no action.

Similarly, the IOPC Fund accepts that it should pay for pay for losses of profits suffered by fishing and tourism operators, but only if the economic models used are credible and acceptable to its own experts. The Soviet Methodica was unacceptable, not just because it was arbitrary, but because it assumed that there was a linear relationship between economic losses and the quantity of oil spilled. This is not the case, and even small quantities of oil can cause massive amounts of damage. We should also recall that a major element in the *Deepwater Horizon's* massive \$40bn USD cost was generated because the penalties under the United States Clean Water Act were calculated according to the volume of oil spilled. The point of such fines is to punish and deter bad behaviour. Shipowners, insurers and oil importers have already agreed to accept strict liability for oil pollution damage, but only on reasonable terms. Monies must be spent on actual quantifiable losses, to ask for more would bring the Convention regime into disrepute and disarray.

What implications does this have for New Zealand's offshore petroleum marine pollution damage laws? The Ministry of Transport promised to increase the MPR Part 102 minimum insurance requirements for offshore installations from approximately \$26m NZD to \$600m NZD, but, apparently intended to limit the installation owner's financial obligations by scaling the requirement depending upon such things as the location of the activity and the potential impact of any spill. Navigatus Consulting were briefed to confine their discussion to direct damages, Rule 102.8(2)(b) was to be revoked, and henceforth operators would only be obliged to obtain financial security to meet their liability for the costs of dealing with pollution, for damage to property, and the costs of reasonable preventive measures and measures of reinstatement under the MTA. While the MOT's Invitation to Comment promised that it would provide guidelines to clarify issues

of liability and terminology, these had not been produced at the time this thesis was being produced.

If New Zealand is to enforce liability for marine pollution damage onto the owners and operators of offshore oil rigs, drillships, pipelines and FPSOs for oil spills resulting from their activities, as that term was adopted from the 1992 CLC and Fund Conventions, then offshore oil and gas operators must be prepared to pay for a wide range of preventive and reinstatement measures, as well as losses of profit caused by contamination of oil. According to the latest *Claims Manual*, damage estimates must be calculated using recognized economic models. For example, Maritime NZ may use the NEBA system to assess the reasonableness of remediation options against the alternative of taking no action. Clean-up costs could involve cleaning up oiled wildlife and removing contaminated sand. Reinstatement measures might entail replanting mangroves, dredging up contaminated mud and sand, and stabilising dunes with grass planting. As well as that, local businesses will need to be compensated for their losses of profits, and supported with public information and marketing plans to restore consumer faith in the area and its products. Operators will therefore need to look beyond the bare costs of restoring well control or removing oil from the coastlines, and be aware of the wider costs to the local economy and marine environment. Furthermore, this holds true regardless of whatever the MOT may indicate with its financial assurance guidelines, as it must be remembered that all persons and entities falling within the MTA's definition of an owner or person in charge of an offshore installation will be liable for the costs of pollution damage and preventive measures, as well as penalties in other statutory regimes, and under the tortious forms of liability that the New Zealand law still allows.

9 Offshore Craft and the CLC and Fund Conventions

Offshore oil and gas exploration and production activities make use of a multitude of differing craft and structures. The challenge for lawmakers is that, while the CLC and Fund Conventions have provided a well-funded and comprehensive oil pollution damage compensation regime for shipping, there is no equivalent international regime for offshore petroleum exploration and extraction activities. The CLC and Fund Conventions only apply to “ships” that are engaged in the carriage of bulk cargoes of hydrocarbons, and they are not intended to apply to pollution damage from the exploration and exploitation activities actually producing those cargoes. As Maria Gavouneli has said, the “multifacetedness [of offshore craft] creates a strange legal being that partakes of the qualities of an island, a mining site and a ship.”⁸⁰ Many offshore craft float, they can be propelled from place to place, store large quantities of hydrocarbons, and, if they are involved in an accident, will cause as much or more oil pollution damage than any tanker. If the victims of such offshore oil spills can bring their case within the rubric of the CLC and Fund Conventions, then the IOPC Fund can be compelled to compensate their claims. It is necessary then to determine exactly when a particular vessel is or is not a “ship”.

This chapter will address the issue by first undertaking a brief overview of the types of structures, craft and facilities that are used in the exploration, production, storage and distribution of oil and gas. It will explain how the IOPC Fund’s offshore craft policy was challenged by the *Slops* case, and how it has developed a “hybrid approach”, considering lists of types of craft in the context of the role they play in the “maritime transport chain”. The IOPC Funds views can then provide a perspective to assess the choices that New Zealand and EU lawmakers have made in defining and applying liability for damage from “marine structures” and “offshore craft” respectively.

⁸⁰ Maria Gavouneli *Pollution from Offshore Installations* (Graham & Trotman/M Nijhoff, London ; Boston, 1995) at 11.

9.1 Offshore Structures, Craft and Ships

Just like the tanker industry, offshore oil and gas exploration and extraction activities have seen intense and rapid technological evolution since their primitive beginnings in the late 19th century. The *Spindletop* well, drilled in the late 1890s, operated in such shallow, near-shore waters that it was possible to reach the derrick with a simple wooden pier.⁸¹ By the 1940s, wooden piers had given way to mobile tenders servicing more distant prefabricated steel fixed platforms, allowing drill rigs to be built and deployed further from shore.⁸² Colonel Leon B. DeLong pioneered the jack-up rig in 1950, using a barge to drop leg-like caissons to the seabed, and then to jack the platform as high above the water as required.⁸³ Seabed installations reached their logical zenith with the 1988 *Bullwinkle*; a conventional fixed based platform of vast size.⁸⁴ The *Bullwinkle* was able to drill in 1,354 feet of water, but with a pyramidal base of 400 by 480 feet, and comprising of 54,000 tons of steel, the configuration had reached its financial and physical limits.

When fixed platforms become unfeasible due to water depth, cost, remoteness, or even because of political instability, then floating systems, such as drillships and semi-submersible platforms, provide a more cost effective alternative, and one that can be removed relatively quickly and easily when necessary. When Shell deployed the first semi-submersible, the *Bluewater I*, its Coast Guard application avoided the term “ship”, not necessarily because the *Bluewater I* was not thought of as a ship, but to sidestep entanglements with the maritime unions.⁸⁵ Inevitably, the use of floating craft to carry out mining operations has blurred the line between shipping and mining law.

Floating systems allow operations to take place in waters of a much greater depth. The current record was set off the coast of Uruguay by a drillship owned by Danish drilling contractor Maersk Drilling, which was able to drill at a water depth of 3.4

⁸¹ William L Leffler, Richard Pattarozzi and Gordon Sterling *Deepwater Petroleum Exploration & Production: A Nontechnical Guide* (2 ed, PennWell Corp, Tulsa, Okla, 2011) at 2.

⁸² At 8-9.

⁸³ At 12.

⁸⁴ At 37.

⁸⁵ At 15.

kms.⁸⁶ By comparison, the *Deepwater Horizon* was operating in a mere 1.52 kms of water when a loss of well control caused it to explode and sink.⁸⁷ Remembering that water pressure increases by approximately one atmosphere every ten meters, Maersk's drilling gear had to survive 338 atmospheres, or 350 kilograms of force per square centimetre, equivalent to nearly 5000 psi. This is not to mention the additional pressures and high temperatures suffered when drilling kilometres deep into the seabed itself.

The first purpose built drillship was the 1961 *CUSS I*, a barge with a derrick placed over a central access hole (moonpool).⁸⁸ The derrick held up a birdcage structure with guide wires which stretched down to the ocean floor landing base. The drill string would then be run through a surface pipe to the point on the seabed where initial drilling or spudding would begin. Blowout preventers would then be lowered to the bottom, and the pipe cemented in place allowing hydrocarbons to be safely extracted. One of the major challenges for such floating systems, especially in stormy conditions with drill strings literally kilometres in length, is how to maintain a stable position over the spudded well. Later drill ships, like the 1962 *Eureka*, used rotatable bow and stern propellers to move the ship in any direction, but its rotatable propeller design wore out quickly and used far too much fuel. The first proper dynamically positioned drill ship was the *Sedco 445*.⁸⁹ Its 11 fixed thrusters proved to be more durable and fuel efficient, and that configuration would become the drillship industry standard.

Today there are three basic types of development systems: fixed, floating, and subsea.⁹⁰ Fixed platforms now include compliant towers that are far more flexible and able to reach much greater depths than massive pyramid shaped derricks like the *Bullwinkle*. Their slender design minimises the base area, and they sway in the water just as a reed does, indeed an early compliant tower was called the *Roseau*,

⁸⁶ Offshore Energy Today Staff "Uruguay: First Offshore Well in Years Breaks World Record" (1 April 2016) Offshore Energy Today <www.offshoreenergytoday.com>.

⁸⁷ National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling "Deep Water: The Gulf Oil Disaster and the Future of Offshore Drilling: Report to the President" (January, 2011) <www.oilspillcommission.gov> at 25 and 60.

⁸⁸ Leffler et. al., *Deepwater Petroleum*, at 14.

⁸⁹ At 17.

⁹⁰ At 140.

the French for reed.⁹¹ For harsher environments, there are reinforced concrete gravity platforms that, as the name suggests, are held in place by their sheer size and weight.

It was Brazil's state-owned oil company Petrobras that converted tankers into the first permanent Floating Production Systems ("FPS") and Floating Production, Storage, and Offloading ships ("FPSOs").⁹² FPSs and FPSOs are moored over the producing field, providing a loading point for shuttle tankers, eliminating the need for subsea pipelines or shore based infrastructure and shortening the average discovery-to-production-of-first-oil time span by years. Floating systems utilize a variety of floatation and mooring configurations, and, as well as FPSs and FPSOs, include tension leg platforms, spar platforms, floating drilling production storage and offloading systems ("FDPSO") and floating liquefied natural gas systems ("FLNG"). The scale of some of these systems is epic, their steel wire or polyester rope moorings stretch thousands of feet down to a final length of chain links at the seabed, where each link in that chain can weigh up to 1,320 pounds and stand 3 feet in height.⁹³ Once the well has been completed and is producing, then a subsea system can be built and connected by flowlines and risers to fixed, floating or landbased storage and offloading systems. This allows the rig or drillship to move to another site, and to allow safe production to continue regardless of water depth.

The unintended result of all of this technological development is that the global offshore oil and gas industry now makes use of a vast array of craft, some of which may be part drill rig, part storage facility and part ship. When one is involved in an accident, and the responsible parties are insolvent or insufficiently insured, then the pressure is on to find some compensation option. In the absence of any other international liability and compensation regime, the victims of these accidents may be tempted to turn to the IOPC Fund and argue that the particular craft should be treated as a "ship". How then has IOPC Fund developed its policy with respect to ships and offshore craft?

⁹¹ At 156.

⁹² At 37-38.

⁹³ At 208.

9.2 *Defining Offshore Craft for the CLC and Fund Conventions*

The 1969 CLC Convention defined a ship as “any sea-going vessel and any seaborne craft of any type whatsoever, actually carrying oil in bulk as cargo.”⁹⁴ The 1992 CLC Convention refined this definition somewhat to include “seaborne craft of any type whatsoever constructed or adapted for the carriage of oil in bulk as cargo”, as long as the craft was actually carrying a cargo of oil, or if the damage was caused by oily residues from the previous voyage.⁹⁵ The question is whether they could also apply to vessels used in the offshore petroleum production process itself. For example, the Conventions’ definition of a ship could apply to floating installations when they are used to store and/or to transport oil from production installation to shore, from ship-to-ship, or outside of the oil field’s normal area of operations. That more flexible definition could expand to include tankers that had been converted into FPSOs and floating storage and offloading units (“FSOs”), and this is exactly what happened in the Greek case of the *Slops*.⁹⁶

9.2.1 **The Case of the *Slops***

The *Slops* was a tanker converted into an FPSO for processing and separating the oily residues from other ships, presumably in order to satisfy MARPOL 73/78 requirements at the Greek port of Piraeus.⁹⁷ In 2009, a fire broke out on board the *Slops*. The subsequent explosion and discharges contaminated a 4000 m² to 5000 m² area of the harbour. Two companies hired to undertake clean-up and preventive measures were never paid and brought a claim against the IOPC Fund under the 1992 Fund Convention.

⁹⁴ International Convention on Civil Liability for Oil Pollution Damage 973 UNTS 3 (opened for signature 23 June 1969, entered into force 19 June 1975), art. I(1).

⁹⁵ Protocol of 1992 to amend the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention 1992) 1953 UNTS 330 (opened for signature 27 November 1992, entered into force 30 May 1996), art. 2.

⁹⁶ Edgar Gold, Aldo E Chircop and Hugh M Kindred *Maritime Law* (Irwin Law, Toronto, Ont, 2003) at 691.

⁹⁷ Yiannis Timagenis and Stavros Stavroulakis “Areios Pagos (the ‘Slops’ case)” (2010) 1 *Aegean Rev Law Sea* 141.

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Since 1999, the IOPC Fund's position has been that:⁹⁸

- i. Offshore craft should be regarded as 'ships' under the 1992 Conventions only when they carry oil as cargo on a voyage to or from a port or terminal outside the oil field in which they normally operate.
- ii. Offshore craft would fall outside the scope of the 1992 Conventions when they leave an offshore oil field for operational reasons or simply to avoid bad weather.

The IOPC Fund therefore refused to make payment as the *Slops* was permanently moored in Greek territorial waters, its engine was deactivated, its propeller removed, and it had not undertaken a voyage of any sort in five years.⁹⁹ The Greek Court of Appeal agreed; the vessel must be undertaking a voyage at the time of the accident in order to be covered by the CLC and Fund Conventions.¹⁰⁰ In the Greek Supreme Court, however, the majority decision was that it was sufficient:¹⁰¹

... for these ships to be able to move self-propelled or under tow and to have the capacity to carry oil in bulk as cargo, without it being necessary, in order for the International Conventions to be applicable, for an accident to take place during the carriage of oil in bulk as cargo in the course of the voyage.

That the *Slops* was "static" at the time of the accident was therefore of less importance than that fact that it could be moved if necessary.¹⁰² The case was referred back to the Court of Appeal and the IOPC Fund was ordered to pay €2,323,360 plus costs and interest.¹⁰³

The *Slops* decision forced the IOPC Fund to reconsider its 1999 position, especially regarding FPSOs and FSOs.¹⁰⁴ The new position was informed by an opinion from Professor Vaughan Lowe of the University of Oxford, which focussed on whether

⁹⁸ International Oil Pollution Compensation Fund 1992 *Record of Decisions of the Fourth Session of the Assembly* (22 October, 1999) 92FUND/A4/32 at [24.3].

⁹⁹ Vaughan Lowe "Ships" in Nerina Boschiero and others (eds) *International Courts and the Development of International Law: Essays in Honour of Tullio Treves* (Springer, The Hague, 2013) 291 at 295.

¹⁰⁰ Timagenis and Stavroulakis, "Areios Pagos (the 'Slops' case)", above n 97, at 142.

¹⁰¹ At 142.

¹⁰² At 143.

¹⁰³ James Harrison "Conflicting Interpretations - The *SLOPS* Incident and the Application of the International Oil Pollution Liability and Compensation Regime to Offshore Storage and Transfer Operations" [2008] JEL 455 at 462; See International Oil Pollution Compensation Fund 1992 *Record of Decision of the Forty-First Session of the Executive Committee*, (27 June 2008), 92FUND/EXC.41/11 at [3.2.6].

¹⁰⁴ International Oil Pollution Compensation Funds *Consideration of the Definition of "Ship"* (14 September, 2011) IOPC/OCT11/4/4.

the craft was one capable of carrying oil on a voyage at sea, and was actually doing so.¹⁰⁵ The IOPC Fund's Director subsequently recommended that if a vessel was stationary for more than one year, then it could no longer be said to be carrying oil. At that point, the most that could be said is that the Member State where the vessel ended up had received oil counting towards that country's IOPC Fund contributions. However, tankers often have to sail very slowly or to wait for significant periods of time before they can be offloaded, and the Director's views threatened to disrupt maritime practices.¹⁰⁶

9.2.2 The Hybrid Approach and the Maritime Transport Chain

In October of 2015, the 1992 Fund's Administrative Council attempted to shine new light on the issue, accepting a Working Group's recommended lists of vessels that either are or are not ships.¹⁰⁷ The vessels that are ships include:¹⁰⁸

1. A seagoing vessel or seaborne craft constructed or adapted for the carriage of oil in bulk as cargo when it is actually carrying oil in bulk as cargo;
2. A seagoing vessel or seaborne craft in ballast following a voyage carrying oil with residue of oil onboard;
3. A craft carrying oil in bulk as cargo being towed (or temporarily at anchor for purposes incident to ordinary navigation or force majeure or distress);
4. A ship capable of carrying oil and other cargoes (ie an Oil Bulk Ore carrier (OBO)) when it is actually carrying oil in bulk as cargo and during any voyage following such carriage unless it is proved that it has no residues;
5. Offshore craft that have their own independent motive power, steering equipment for seagoing navigation and seafarer onboard so as to be employed either as storage units or carriage of oil in bulk as cargo and that have the element of carriage of oil and undertaking a voyage;¹⁰⁹ and
6. Craft that are originally constructed or adapted (or capable of being operated) as vessels for carriage of oil, but later converted to FSOs, with capacity to navigate at sea under their own power and steering retained

¹⁰⁵ At [3.10].

¹⁰⁶ International Oil Pollution Compensation Funds *Definition of "Ship" under the 1992 Civil Liability and 1992 Fund Conventions: Submitted by the Netherlands* (15 April, 2013) IOPC/APR13/7/1/Rev.1 at [2.1].

¹⁰⁷ International Oil Pollution Compensation Funds *Final Report of the Seventh Intersessional Working Group: Consideration of the Definition of "Ship"* (11 September, 2015) IOPC/OCT15/4/2; International Oil Pollution Compensation Funds *Record of Decisions of the October 2015 Sessions of the IOPC Funds' Governing Bodies* (23 October, 2015) IOPC/OCT15/11/1 at 30.

¹⁰⁸ IOPC Fund, *Record of Decisions of the October 2015 Sessions of the IOPC Funds' Governing Bodies*, at 33.

¹⁰⁹ The list noted that "offshore craft" could include FDPSOs, FPSOs and Floating Storage Units, whether or not they were purpose built or had been "converted or adapted from seagoing vessels constructed for the carriage of oil."

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and with seafarer onboard and that have the element of carriage of oil and undertaking a voyage.

The vessels that clearly do not fall within the list of CLC ships includes “non-tanker” vessels such as cruise ships and fishing vessels, but crucially also includes:¹¹⁰

- 3) Vessels or craft involved in:
 - (a) Exploration, for example jack-up rigs or Mobile Offshore Production Units (a jack-up platform whether or not it carries oil, gas and water separation equipment); or
 - (b) The production or processing of oil, for example Drill-ships, FDPSOs, and FPSOs, including separation of water and gas, and its management.

Any “grey areas” are addressed on a case-by-case basis using a “hybrid approach” that involves compared the specific vessel with the listed examples, and considered the role the craft played in the “maritime transport chain”.¹¹¹ “Maritime transport chain” is intended to supplant the term “voyage”. It will capture all maritime transport activities that pose a risk of pollution damage, including containment or storage, but will exclude production or processing activities. The chain begins:¹¹²

...from the moment when the oil left the production, processing or treatment plant, whether land or off-shore, until it was delivered to its final destination, whilst noting that the transport chain only covered carriage by sea under the 1992 CLC.

The moment that the vessel is loaded and disconnects from the platform or mooring buoy, then it enters into the maritime transport chain. According to the IOPC Fund’s guidelines, this includes “ship-to-ship (STS) operations; periods of waiting; storage (excluding those without navigational capability), and anchoring pending final delivery to a port terminal installation or final consumer/recipient”.¹¹³ It does not matter if the final destination is unknown or if the vessel has to anchor and wait for an “extended period of time”, the “carrying vessel or seaborne craft nevertheless

¹¹⁰ At 33.

¹¹¹ At 30.

¹¹² IOPC Funds *Final Report of the Seventh Intersessional Working Group: Consideration of the Definition of “Ship”*, above n 107, at 7.

¹¹³ International Oil Pollution Compensation Funds *Guidance for Member States: Consideration of the definition of “ship”* (London, 2016) at 3.

remains within the maritime transport chain until the cargo is finally delivered.”¹¹⁴ The exclusion of vessels “without navigational capacity” appears to be squarely aimed at permanently moored craft like the *Slops*.¹¹⁵ The guidelines also specify that exploration, drilling, production and processing activities are strictly outside of the scope of the compensation regime.

The hybrid approach gives the IOPC Fund more flexibility in the matter of deciding whether or not a vessel is a ship. If the offshore craft carrying out production or processing of oil, whatever its type and configuration, is permanently anchored in place then it is not a ship. Ships are vessels if they are carrying bulk cargoes of oil on voyage, or the voyage immediately following delivery. The *Slops* would be excluded, not because it was not capable of being moved, but because it had not detached from its mooring and therefore had not initiated a new maritime transport chain. The hybrid approach therefore refines but does not deviate from the 1992 CLC Convention’s fundamental requirement, that the vessel be engaged in a voyage carrying a bulk cargo of oil. The IMO would be asked to address the issue of oil pollution damage again after the *Montara* disaster, as Chapter Thirteen will explain.

9.2.3 The Status of IOPC Fund’s Decisions in International Law

Whether national courts will agree with the IOPC Fund’s specifications is another question. Under Article IX of the 1992 CLC Convention, the court of the affected Contracting State has exclusive competence to entertain “actions for compensation” and to “determine all matters relating to the apportionment and distribution” of any funds. Similarly, Article 7 of the 1992 Fund Convention guarantees that the competent court of the state affected by the oil spill has jurisdiction to determine the extent of the IOPC Fund’s liability. The Fund is only excluded from liability if certain exceptions apply, and is always liable for the costs of preventive measures.¹¹⁶ The Fund does have a right to be heard, and is not bound by any settlements or decisions that it has not been party to, but the *Slops* case proves that national courts are capable of contradicting the Fund’s most basic assumptions.

¹¹⁴ At 3.

¹¹⁵ At 2.

¹¹⁶ Article 4.

James Harrison's review of the *Slops* case points out the ambiguity with which IOPC Fund decisions continue to be treated, and calls into question the legal status of international organizations' decisions.¹¹⁷ He explains how the IOPC Fund's Administrative Council, cognizant of its precarious position, asserted that it was "crucial for the proper and equitable functioning of the regime establishing these Conventions that they are implemented and applied uniformly in all States Parties".¹¹⁸ The Resolution reminded Contracting States of Article 235, the UNCLOS obligation to cooperate in the implementation of international maritime law, and of Article 31 of the Vienna Convention on the Law of Treaties.¹¹⁹ Article 31 directs that treaties shall be interpreted in good faith, and that parties to any treaty will take into account any subsequent agreement or practice regarding interpretation of the treaty or its provisions. As it is a party to the 1992 Fund Convention, the IOPC Fund argues that States Parties will not choose interpretations that conflict with the Fund's views.

That point of view is debateable. Alvarez has pointed out that institutional practices have more "inherent value" than the self-interested policies of individual states, and should have more persuasive effect.¹²⁰ However, Article 31 of the Vienna Convention only requires states to take parties' agreements "into account". State sovereignty was integral to the original 1969 CLC Convention, which is why national courts have the final word in interpreting and apportioning costs. Harrison is right in pointing out that more cases like the *Slops* will arise in future, and this may raise litigation costs, but it remains the case that the IOPC Fund's decisions are not binding precedents.

¹¹⁷ James Harrison "Conflicting Interpretations - The SLOPS Incident and the Application of the International Oil Pollution Liability and Compensation Regime to Offshore Storage and Transfer Operations" [2008] JEL 455.

¹¹⁸ International Oil Pollution Compensation Fund *Resolutions of the 1992 Fund: Resolution No 8 on the Interpretation and Application of the 1992 Civil Liability Convention and the 1992 Fund Convention* (May, 2003) www.iopcfunds.org (accessed 3 April 2017), Preamble.

¹¹⁹ United Nations Convention on the Law of the Sea 1833 UNTS 3; 21 ILM 1261 (1982) (opened for signature 10 December 1982, entered into force 16 November 1994); Vienna Convention on the Law of Treaties, UNTS 115/331 (opened for signature 23 May 1969, entered into force 27 January 1980).

¹²⁰ José E Alvarez *International Organizations as Law-makers* (Oxford University Press, Oxford [England]; New York, 2005) at 89.

If the offshore craft causes pollution damage, and that damage does not fall under the CLC and Fund Conventions, then the issue will be deciding the owners and operators' liability under the laws of the states where the damage occurred. The discussion will now review how offshore structures and craft are treated in New Zealand law, before turning to the EU's Offshore Safety Directive.

9.2.4 Marine Structures and Offshore Installations in New Zealand Law

How then does the New Zealand law distinguish between ships and offshore craft? New Zealand currently has five oil and gas fields and six offshore installations, all off the Taranaki Coast.¹²¹ These are the Maui A and B Platforms, the Tui FPSO, the Maari wellhead platform and FPSO, the Kupe wellhead platform and Pohokura wellhead platform. New Zealand's offshore petroleum production operations make use of fixed permanent platforms. The platforms at the Maui, Kupe and Pohokura fields pipe the hydrocarbons they produce to onshore production facilities for processing. In contrast, the Tui and Maari FPSOs receive hydrocarbons, then process, store and offload the produced products to tankers for transport to market.¹²² Permanent production facilities are less risky to operate than exploratory drilling operations because there is less chance of a loss of well control once a well has been completed, however, New Zealand's policy of encouraging more intensive offshore drilling operations has seen exploratory drilling being undertaken by drillships. Other kinds of mobile offshore drilling units ("MODU") will be deployed in future exploratory drilling operations at possibly even great depths.¹²³ These ships and ship like structures could be captured by international conventions like the CLC and Fund Conventions, MARPOL 73/78, the Convention on Limited Liability for Maritime Claims 1976 and the LLMC and the International Convention on Oil Pollution Preparedness, Response and Cooperation. It becomes very important then to discern how New Zealand law distinguishes between CLC ships, regular ships, and the floating ship-like installations that are used in offshore petroleum operations.

¹²¹ Leighton Keith "Government faces multi-million dollar bill to decommission oil rigs" *Taranaki Daily News* (29 March 2017) <www.stuff.co.nz> (accessed 10 October 2017).

¹²² New Zealand Petroleum & Minerals "Our Petroleum and Minerals Industry" (19 January 2017) <www.nzpam.govt.nz> (accessed 10 October 2017).

¹²³ Brendan Manning "Anadarko starts drilling in the early morning" *NZ Herald* (26 November 2013) <www.nzherald.co.nz> (accessed 28 January 2016).

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The MTA defines a New Zealand ship with reference to the Ship Registration Act 1992.¹²⁴ According to both Acts, a ship means “every description of boat or craft used in navigation, whether or not it has any means of propulsion”.¹²⁵ That would mean that a ship included floating craft and structures that lacked the means of propulsion, for example, barges or even decommissioned tankers like the *Slops*. However, Part 25 of the MTA agrees with the 1992 CLC Convention, defining a “CLC ship” as:¹²⁶

- (a) any ship carrying oil in bulk as cargo; or
- (b) any ship on a voyage immediately following a voyage where that ship was carrying oil in bulk as cargo (unless it is proved where that ship was carrying oil in bulk as cargo (unless it is provide that it has no residues of the carriage of oil in bulk aboard), —

This means that so long as the ship is carrying oil in bulk as cargo on a voyage, then the craft will be defined as a CLC ship, and the normal rules of the 1992 CLC Convention will apply. If an accident befalls the ship, then it will be possible to lodge a claim for compensation with the IOPC Fund.

Under Part 26A of the MTA, “Civil liability for pollution of marine environment from marine structures”, a marine structure is defined as “an offshore installation, a pipeline, or any facility, site structure, or thing used to transfer a harmful substance to or from a ship, or an offshore installation.”¹²⁷ “Offshore installation” means “any artificial structure (including a floating structure other than a ship) used or intended to be used in or on, or anchored or attached to, the seabed for the purpose of the exploration for, or the exploitation or associated processing of, any mineral; but does not include a pipeline”.¹²⁸ However, a “regulated offshore installation” is any offshore installation in New Zealand’s continental waters, and that does include connected pipelines.¹²⁹ Finally, the Act refers to the term “marine protection product”, which means the parts of a ship, offshore installation or pipeline, that are

¹²⁴ Maritime Transport Act, s 2(1).

¹²⁵ Section 2(1), Ship Registration Act 1992, s 2.

¹²⁶ Maritime Transport Act 1994, s 342.

¹²⁷ Section 385A.

¹²⁸ Section 222.

¹²⁹ Section 385A; All regulated offshore installations are required to maintain a current certificate of insurance for a sum of not less than 14m International Monetary Fund Units of Account. Maritime Transport Act 1994, s 385H; Marine Protection Rules Part 102 - Certificates of Insurance, rule 102.7.

used to prevent, limit or control the escape or discharge of harmful substances, and includes dispersants and emulsifiers.¹³⁰

Offshore craft, such as drillships and FPSOs, can easily undertake navigation, and can carry bulk cargoes of oil, and are used or intended to be used to explore for and exploit and process seabed minerals. Employing the IOPC Fund's logic, the vessel should be categorised as a ship if it is taking part in a new maritime transport chain. That is, if a vessel is anchored or attached to the seabed for the purpose of oil exploration and extraction activities, then it is no longer a ship, but becomes an offshore installation. The moment the vessel breaks that connection to the seabed, weighs anchor and commences to navigate, whether under its own power or under tow, then it becomes a ship. If that ship happens to be carrying bulk quantities of oil on a voyage, then it commences to form part of a maritime transport chain, and if that voyage ends in disaster, then and only then, will the victims be able to apply for compensation according to the rules of the CLC and Fund Conventions.

If the craft is no longer being used, or is no longer anchored or attached to the seabed but is not undertaking a voyage that fits the definition of a maritime transport chain, then is the owner liable for any pollution damage? The answer seems to be found by looking at the term "marine operation". Marine operation is defined in Part 18, section 222, and means "any operations or operation for, or connected with the exploration for, or the exploitation or associated processing of, any mineral in the sea or the seabed." That could capture the entire period of time in which the craft is in New Zealand waters. However, the Marine Protection Rules Part 102 specifies that it is the owners of offshore installations that must provide insurance. It would be up to the Director of Maritime NZ to ensure that the regulated offshore installation's certificate of insurance remained current for the entire time that the offshore installation posed any threat to New Zealand's marine environment, from the moment it entered New Zealand waters, to the moment that it left.

It appears that there are no fundamental disagreements between the New Zealand law and the IOPC Fund's definition of offshore craft. The MTA adopts the CLC

¹³⁰ Maritime Transport Act, s 225.

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Convention's definition of ship verbatim, and draws a fairly clear distinction between vessels and craft involved in the carriage of oil, and those offshore installations used for the exploration and exploitation or processing of minerals from the sea or seabed. This could include a multitude of possible structures and craft, whether they are fixed or floating. Any attempt to make a claim to the IOPC Fund for damage caused by an offshore craft in New Zealand must take account of the IOPC Fund's hybrid approach and that the "maritime transport chain", otherwise the owner's liability and insurance requirements will only be as specified under domestic legislation, such as the MTA.

9.3 *Concluding Remarks*

Large offshore petroleum resources are a source of immense profit, and the challenges of operating in deep and often storm-ridden waters have stimulated the development of a wide variety of fixed, floating and subsea development systems. The *Slops* case in particular demonstrated how blurred the line between ships and offshore craft had become. The IOPC Fund's hybrid approach, with its prescriptive lists and maritime transport chain concept, provides for a more flexible classification system, but it does not deviate significantly from the 1992 CLC Convention's basic definition of ship, as a vessel which is engaged in voyage, carrying bulk cargoes of oil, or which has just done so. Oil and gas exploration and production activities will be excluded, but the chain will not arbitrarily exclude claims merely because the particularly voyage was delayed, or if the cargo was in transit from ship-to-ship. The interpretation was crafted to eliminate the confusion that led to cases like the *Slops*, but national courts still have the competence to decide when and if the CLC and Fund Conventions will apply. It remains to be seen how they will greet the IOPC Fund's non-binding resolutions and guidelines.

The New Zealand and European marine pollution and environmental liability laws have a similar intent. The objective is to distinguish offshore installations and operations from CLC ships, while ensuring that the persons responsible for their safe maintenance and operation will be held accountable for any damage they cause. Both seem to distinguish a craft from a ship depending upon whether it is actually

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engaged in offshore petroleum exploration and production activities. There may still be some ambiguity in that those domestic laws could be better crafted to mesh with the CLC and Fund Conventions' definitions, however, and it may be that national courts will continue to push the IOPC Fund to accept claims that it would rather deny.

So long as there is no international civil liability and compensation regime for the offshore oil and gas industry, domestic law makers and the IOPC Fund will struggle to allocate responsibility for offshore oil pollution damage between them. Why is this the case? To understand, it is necessary to look in more detail at the development of international law regarding the offshore oil and gas industry, and that is the subject of chapter 13 below.

10 The Road to the EU's Environmental Liability Directive

Like New Zealand, and many other nations around the world, the *Deepwater Horizon* has challenged the European Union (“EU”) to question its ability to cope with major offshore oil well disasters. The EU had to reconsider how its Member States were imposing liability for oil pollution damage caused by offshore petroleum exploration and extraction activities in the absence of an international offshore petroleum industry liability and fund convention.

Just like New Zealand, the EU has chosen to expand an existing overarching legal liability framework to provide a neat solution to a complex problem. While New Zealand created its offshore marine pollution damage liability regime using definition of pollution damage and preventive measures from the CLC and Fund Conventions, the EU worked with its own Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (“ELD”).¹ Directive 2013/30/EU on safety of offshore oil and gas operations (“OSD”) requires the EU's Member States to harmonize their offshore oil and gas safety regulations, and it amended the ELD so that offshore oil and gas operators would now be held strictly liable for any environmental damage they caused in marine waters.²

This thesis asks what legal liability do the operators of offshore oil and gas exploration and extraction activities in EU's coastal and marine waters face under the ELD and OSD? To answer that question, it is necessary to first consider how the ELD came into existence and how that process shaped its final form as a public law directive. This chapter will therefore explain how the EU's constitutional principles, and its previous efforts at creating industry specific liability laws, shaped

¹ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56

² Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56; Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66.

the decision to shift from a harmonized civil liability regime that would have addressed all the possible damage caused by industrial activities, to a much narrower public law liability system. The final outcome would give maximum discretion to the individual Member State to determine how that law should be shaped and implemented, but at the risk that the overall liability regime would become fragmented and that legitimate claims might go unremedied.

Throughout this discussion, the thesis will look for parallels between the ELD and OSD and the CLC and Fund Conventions. In particular, it will look for similarities between how the two regimes define, allocate and financially secure liability for environmental damage. On a second level, it will consider how the EU Member States are also able to use their discretion to shape the law to suit their local conditions, and how that compares with New Zealand's experience in shaping the CLC and Fund Conventions to create its own offshore petroleum liability regime. The intention is not just to explain the specifics of EU offshore oil and gas operators' liabilities, but to ask what practical considerations will limit other country's attempts to mould international law to suit domestic legal liability issues.

10.1 Conferral of Competences, Subsidiarity and Proportionality

The European Commission ("EU Commission") is the EU's executive branch, and it has the power to propose, enact and enforce legislation that will apply to all Member States.³ Yet its legislative powers are limited by the constitutional principles of conferral, subsidiarity and proportionality.⁴ As Article 5(2) of the Treaty on European Union ("TEU") puts it:

... the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein. Competences not conferred upon the Union in the Treaties remain with the Member States.

³ Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (2012) OJ C 326/1, art. 5 TEU; See Robert Schütze "EU Competences: Existence and Exercise" in Anthony Arnall and Damian Chalmers (eds) *The Oxford Handbook of European Union Law* (Oxford University Press, Oxford, United Kingdom, 2015) 75.

⁴ Article 5(3)-(4) TEU; PP Craig and G De Búrca *EU Law: Text, Cases, and Materials* (sixth ed, Oxford University Press, Oxford, United Kingdom ; New York, NY, 2015) at 96.

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Subsidiarity means that the EU will only intervene where necessary to achieve a particular objective, while proportionality means that any intervention will be limited to the extent necessary to achieve that objective. As a previous Protocol to the Treaty of Amsterdam explains:⁵

The form of [EU] action shall be as simple as possible, consistent with satisfactory achievement of the objective of the measure and the need for effective enforcement. The [EU] shall legislate only to the extent necessary. Other things being equal, directives should be preferred to regulations and framework directives to detailed measures. Directives as provided for in Article [288] TFEU, while binding upon each Member State to which they are addressed as to the result to be achieved, shall leave to the national authorities the choice of form and methods.⁶

Directives are preferred to regulations because they give each Member State discretion to shape the EU law to suit its own local conditions. Regulations, on the other hand, immediately form part of the legal system of all Member States, and they are binding in their entirety.⁷ This had implications for the choice to make the ELD a directive, as an Environmental Liability Regulation would have entailed instantly reshaping Member States' environmental protections in a form chosen by the EU Commission, and that would have been far too intrusive to have been acceptable to the Member States. The ELD was not the first time that the EU attempted to create an environmental damage liability directive, however, and earlier attempts at regulating hazardous waste industries would help to shape the debate around the ELD and the choice of form and style of legislation.⁸

⁵ Protocol on the Application of the Principles of Subsidiarity and Proportionality [1997] OJ L 115/206; Protocol on the application of the principles of subsidiarity and proportionality, [1997] OJ Craig and De Búrca *EU Law: Text, Cases, and Materials* at 96.

⁶ The current Subsidiarity Protocol omits this statement, but the EU Commission has said that these guidelines have continuing relevance; see Commission of the European Communities *Report from the Commission on Subsidiarity and Proportionality* COM(2010) 547 final.

⁷ Article 288 TEU; Craig and De Búrca *EU Law: Text, Cases, and Materials*, above n 4, at 198.

⁸ G Betlem and E Brans "Environmental Liability in the EU: An Introduction" in G Betlem and E Brans (eds) *Environmental Liability in the EU: the 2004 Directive Compared with US and Member State Law* (Cameron May, London, 2006) 17 at 17.

10.2 Regulating Environmental Damage: The Seveso and Waste Directives

The toxic chemical explosion at Seveso, Italy, in 1976, and the chemical spill at a Sandoz storehouse in Switzerland, which devastated the River Rhine in 1986, had prompted the EU to address prevention and liability for pollution damage with the Seveso and the Waste Directives.⁹ The Seveso Directive would be relevant to later efforts to pass the OSD after the Deepwater Horizon, because the amended Seveso II Directive specifically excludes “the offshore exploration and exploitation of minerals, including hydrocarbons”, as does its complementary Directive 2006/21/EC on the management of waste from extractive industries.¹⁰ Furthermore, even though the Waste Directives would fail to pass, they drew heavily from the model of the CLC and Fund Conventions in creating a blueprint for the 1993 Green Paper to follow.

The Seveso Directive and its subsequent iterations did provide a template for the OSD, however, so it is worth reviewing. Like the original Directive, Seveso II aims to prevent and limit the consequences of major chemical industry accidents.¹¹ Operators must produce a safety report providing details of site's layout, the whereabouts of any dangerous chemicals, specific risk factors and any accident contingency systems.¹² The operator must set up a major accident prevention policy “designed to guarantee a high level of protection for man and the environment by appropriate means, structures and management systems.”¹³ It must inform the competent authorities of the circumstances of any accident, the substances involved, and any emergency measures they have taken.¹⁴ The Directive also detailed rules for inspections by competent authorities.¹⁵

⁹ Council Directive 82/501/EEC of 24 June 1982 on the major-accident hazards of certain industrial activities [1982] OJ L 230/1; Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances [1996] OJ L 10/13.

¹⁰ Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances [1996] OJ L 10/13, art. 4(e); Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC - Statement by the European Parliament, the Council and the Commission, Recital (9).

¹¹ Council Directive 96/82/EC, Recital at [1].

¹² Recital at [17], art. 8(2)(a) and art. 9.

¹³ Council Directive 96/82/EC, art. 7 and 14.

¹⁴ Council Directive 96/82/EC, Recital at [23].

¹⁵ Council Directive 96/82/EC, art. 18.

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While the first two Seveso Directives established basic accident reporting and contingency planning standards, neither addressed operator liability.¹⁶ In 1984, the EC Commission proposed that the Council determine the conditions for implementing civil liability and insurance for damage caused by waste. The 1989 “Proposal for a Council Directive on Civil Liability for Damage caused by Waste” would have held waste producers strictly liable for harm to people, damage to property, and injury to the environment.¹⁷ The Waste Directive proposal argued that that failure to harmonize Member States’ environmental damage laws could be harmful to the EC’s internal market, as it would undermine competition and could lead to a regulatory race-to-the-bottom. Specifically, the proposal said that:¹⁸

The occurrence of differences among national laws regarding the designation of the person liable (producer, holder) and the absence of a concerted development of notions like the damage and injury to the environment covered by liability, the causal relationship, the limitations of liability, etc, would lead to unequal conditions for competition among Member States and thus to artificial currents of investments and of wastes to those countries where conditions are least stringent for the economic operators and most disadvantageous to the victim. This is contrary to the philosophy of the Single European Act that foresees a high level of protection.

Strict liability would also have a deterrent function, “as if the polluter knew with certainty [sic] that he would have to pay the cost, he would be encouraged to take action to minimize risks as soon as possible.”¹⁹ It cited examples of strict liability regimes in the nuclear industry and the CLC and Fund Conventions 1969/71, and in the national laws of Germany, Belgium and France.²⁰ Both proposals would have included “injury to the environment” as well as physical injury or death and damage to property, but the Amended Proposal attempted to follow the example of the United States’ CERCLA legislation in allowing for claims for “any significant

¹⁶ Seveso II has been repealed and replaced by Seveso III - Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC Text with EEA relevance OJ L 197/1.

¹⁷ Commission of the European Communities *Proposal for a Council Directive on Civil Liability for Damage Caused by Waste* COM(89) 282 final - SYN 217, OJ C 251/3 at 3.

¹⁸ At 1.

¹⁹ At 1.

²⁰ At 2.

physical, chemical or biological deterioration of the environment”.²¹ While the original proposal accepted that “market conditions at present are such that it is not opportune to establish a mandatory system of insurance”, the Amended Proposal demanded that the “liability of the producer and eliminator of waste must be covered by insurance or other financial security”.²² The Council was further required to consider the feasibility of establishing a European environmental damage compensation fund to provide for circumstances where the liable party could not pay for full compensation or where no liable person could be identified.²³ The Waste Directive would, therefore, have closely followed the CLC and Fund Convention model, but the Amended Proposal was ultimately rejected.

Sandra Cassotta explains that the refusal to adopt either Waste Directive proposal may have been because of three “political barriers”.²⁴ First, there was little interest from Member States, and some, like the United Kingdom, were quick to argue that their domestic legal protections were sufficient. Second, the Commission failed to satisfy the subsidiarity requirement, that the matter could only be dealt with at the EU level. Finally, there was vigorous opposition from “non-official actors”, that is, the interest groups representing the producers and eliminators of waste.²⁵ Member States had few reasons to accept the economic damage that might accompany such a regime, and the EU Commission would be forced to reconsider its approach.

10.3 The 1993 Green Paper on Remedying Environmental Damage

The subsequent Green Paper on Remedying Environmental Damage replicated the Waste Directives in calling for a comprehensive strict civil liability regime that encompassed traditional damages and a wide array of environmental damages, and in backing up that liability with mandatory insurance and an EU-wide compensation

²¹ Article 2(1)(c)-(d); Commission of the European Communities *Amended Proposal for a Council Directive on Civil Liability for Damage Caused by Waste* COM(91) 219 final - SYN 217, OJ C 192/06, art. 2(1)(c)-(d).

²² The Amended Proposal displays both versions side-by-side, at 9.

²³ Article 11.

²⁴ Sandra Cassotta *Environmental Damage and Liability Problems in a Multilevel Context: The Case of the Environmental Liability Directive* (Kluwer Law International, The Netherlands, 2012) at 58–60.

²⁵ At 135, Cassotta lists these non-official actors opposed to the proposed directive as including the Union of Industries and Employees Confederations of Europe and the European Chemical Industry Council amongst others.

fund.²⁶ Like the Waste Directives, the Green Paper also faced fierce opposition especially from the most heavily industrialized nations.²⁷

Chris Clarke explains that issues were immediately complicated by the circulation of a North American lawyer's unpublished early draft in 1992, as it contained definitions derived from United States' common law, necessitating comparison with European legal concepts.²⁸ For example, in the United States, "civil" means "not criminal", so refers to both private and public law, but in European civil code countries, "civil" refers only to private actions. Similarly difficulties arose around the term "liability", which has different legal and financial implications depending upon the translation. The Green Paper concluded that civil liability meant private law compensation and should be distinguished from "obligations arising under public law, such as criminal liability and administrative liability."²⁹

The problem for the EU, and the point which ultimately justified its interference in Member States' environmental laws, was that the current liability laws only concerned themselves with damage to human life and property and "scarcely addressed" damage to the environment itself.³⁰ The EU argued that a "Community-wide system of civil liability for environmental damage would draw on a basic and universal principle of civil law, the concept that a person should rectify damage that he causes."³¹ However, the Green Paper argued that liability regimes work best when they focus upon specific incidents involving clearly identified tortfeasors.³²

²⁶ Commission of the European Communities *Communication from the Commission to the Council and Parliament and the Economic Social Committee: Green Paper on Remedying Environmental Damage* ("Green Paper") (Brussels, 14 May 1993) COM(93) 47 final.

²⁷ Chris Clarke "The Proposed EC Liability Directive: Half-Way Through Co-Decision" (2003) 12 RECIEL 254 at 256.

²⁸ At 256.

²⁹ Commission of the European Communities, *Green Paper*, above n 26, at 6.

³⁰ At 17.

³¹ At 4.

³² At 7-9.

The Green Paper used the following figure to illustrate the point.³³

Figure 1: Applicability of Civil Liability in Instances of Environmental Damage

• Measurable and immediate damage	↔	Unbounded or latent damage
• Fine act or incident	↔	Cumulative acts or incidents
• Identifiable liable parties	↔	Unidentifiable liable parties
• Liability (fault based or strict)	↔	No basis for liability
• Causal link established	↔	No causal link determinable
• Party with legal interest who can bring action	↔	No party with legal interest to bring action
Civil action possible		Civil liability not useful; joint compensation mechanism needed

The Commission concluded that civil liability regimes work best when the damage is measurable, immediate and caused by a single incident, when damage is clearly caused by an identifiable liable person or persons, and when the damaged party has standing to bring an action. Conversely, it may be difficult to apply strict or fault-based liability to situations where multiple unidentified and unidentifiable polluters contribute small and diffuse amounts of pollution, with unknown effects, over a wide area impacting the environment and property owners alike. In such cases, the Green Paper recommended consideration should be given to “other mechanisms (compensation systems) to ensure that environmental restoration will take place.”³⁴

The Green Paper recognised that it was of “fundamental importance” to find robust definitions of environmental damage, yet apart from identifying the key components of a civil liability regime, it contributed little to that issue.³⁵ It simply asked whether to include damage to cultural heritage along with damage to plant and animal life, and it offered some consideration of the point when sustainable use became unsustainable abuse. Much would depend upon how the environment was valued, and whether remedial measures should aim to restore the environment to a

³³ At 24.

³⁴ At 24.

³⁵ At 10.

pristine condition, or merely to the prevailing condition as it was at the time of the accident.³⁶

It did warn that uncertain and open ended liability laws with mandatory insurance requirements could make operators “captive to high premium demands from insurers”, and could provoke a European insurance crisis similar to the one which afflicted the United States after the CERCLA Superfund Act introduced an era of aggressive prosecution of a broad range of “potentially responsible parties” and property owners in the 1980s.³⁷ The Green Paper preferred to take the approach of the 1993 Lugano Convention that, like the CLC and Fund Conventions, held operators strictly liable for the costs of preventive measures, but that also included claims for loss of life or personal injury, damage to property, cultural heritage and for damage to “characteristic aspects of the landscape”.³⁸

The Green Paper sought a rational solution to restoring the environment after both spectacular one off disasters and more pervasive diffuse industrial contamination. It acknowledged that civil liability regimes work best when dealing with specific incidents of harm caused by identifiable responsible parties, and that strict liability would both ease the plaintiff’s evidentiary burden and would have beneficial deterrent effects. Mandatory insurance provisions might prove challenging, and there was still a need to consider the practicalities of establishing an industry-fed compensation fund. The danger was that the Green Paper would be rejected outright, especially considering that it largely replicated the earlier Waste Directive proposals, but it was always intended to be a discussion paper and there was room to negotiate its foundation principles.

10.4 The White Paper on Environmental Liability

By 1994, the European Parliament resolved that the issues raised by the Green Paper demanded a firm proposal for a directive on civil liability for environmental

³⁶ At 11.

³⁷ At 19; Annex II at 3-4.

³⁸ Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment (Lugano Convention), CETS No 150 (opened for signature 21 June 1993, not in force), art. 2.

damage.³⁹ However, while the Green Paper had proposed a broad tort-like civil liability regime, the EU Commission's "White Paper on Environmental Liability" ("White Paper") opted for a new public law approach.⁴⁰ The shift was based on two key policy papers; the 1996 CMS Cameron McKenna "Study of Civil Liability Systems for Remediating Environmental Damage" ("McKenna report") and its 2001 follow-up by Chris Clarke, the "Update Comparative Legal Study" ("Clarke report").⁴¹

The McKenna report surveyed 19 different countries, finding that few provided for civil type damages compensation for "pure ecological damage", preferring to use regulatory enforcement mechanisms.⁴² Meanwhile, the Clarke report commented that any EC initiative should be based on existing Member State laws, and would have to avoid creating new rights and systems that overlapped with those long established traditions.⁴³ The White Paper therefore recommended a two-tiered administrative law approach.⁴⁴ Member States would create a first tier of enforcement by appointing environmental damage regulatory bodies known as competent authorities. The second tier would be made up of public interest groups and certain qualifying individuals, but their chief role would be to observe and report environmental accidents, and to request that the competent authority take action. Public participation and access to justice are important principles in the EU, and the Århus Convention guarantees that public have the right to apply for judicial review of administrative decisions, but this was a long way from the general right to bring claims for compensation for property, personal and environmental damage that the Green Paper had proposed.⁴⁵

³⁹ European Parliament Resolution on Preventing and Remediating Environmental Damage [1994] OJ C128/165.

⁴⁰ Commission of the European Communities *White Paper on Environmental Liability* ("White Paper") (COM(2000) 66 final, 9 February, 2000, European Commission,).

⁴¹ CMS Cameron McKenna *Study of Civil Liability Systems for Remediating Environmental Damage* (1996); Chris Clarke *Update Comparative Legal Study (Study Contract No 201919/ MAR/B3)* (2001).

⁴² Mckenna, at 12.

⁴³ Clarke, at iii.

⁴⁴ European Commission *White Paper*, above n 40, at 22.

⁴⁵ UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, 2161 UNTS 447 (opened for signature 25 June 1998, entered into force 30 October 2001).

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Although it was based on recommendations in the McKenna and Clarke reports, the White Paper itself does not explain why the decision was made to change from general tort-like civil liability to a public law environmental damage regime. Faure says that the lack of explanation was because the EU Commission believed that there was no question that a liability regime was warranted, the only question was whether it should be implemented at the EU level.⁴⁶ The White Paper did briefly consider other options, such as ratifying the Lugano Convention, adopting a transboundary damage directive, or else designing directives aimed at individual sectors continuing to address environmental damage on a sectoral basis.⁴⁷ Each of those proposals had its downsides. The Lugano Convention was opposed by industry and Member States alike for being too broad, too uncertain in its legal effects and too vague in its definitions, and it still has never been ratified.⁴⁸ The transboundary approach would have left the policing of most environmental damage to the individual Member State, but would have led to inconsistencies between Member States.⁴⁹ The Waste Directive proposals had already demonstrated the weaknesses of the sectoral approach, and it must have seemed to be more practical to address damage caused by all sectors, at the same time, in a single instrument.

Gerd Winter, Jan Jans, Richard Macrory and Ludwig Krämer explain that the reason the White Paper's United States' styled administrative law model was most acceptable was because it left each country's traditional tort law systems untouched.⁵⁰ They describe the move as "surprising", but necessary to respect individual Member State's deeply held legal traditions.⁵¹ Many of the ELD's key provisions were therefore left deliberately vague so that the Member State could make its own decisions about the "choice of form and methods".⁵² It was this concession to Member State sovereignty that would be key to the ELD's eventual success.

⁴⁶ Michael Faure "Liability for Oil Pollution - the EU Approach" [2004] 2 *Env. Liability* 55 at 64.

⁴⁷ European Commission, *White Paper*, above n 40, at 25.

⁴⁸ At 25.

⁴⁹ At 26.

⁵⁰ Gerd Winter and others "Weighing up the EC Environmental Liability Directive" (2008) 20 *J Environmental Law* 163.

⁵¹ At 163.

⁵² At 186–188.

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EU Commission's 2015 report on the development of "financial security, compensation, third-party liability and criminal liability for offshore accidents", provides another explanation.⁵³ The ELD was based on a "public approach" because "the affected party is not a concrete natural or legal person but society as a whole due to the public and universal character of the effects of any damage to shared natural resources."⁵⁴ The ELD's administrative law approach is therefore justified by the *parens patriae* doctrine. As the United States court said in the *Zoe Colocotroni* case, it is the "special status of the body politic vis-a-vis its citizens [which] gives rise to a right to seek redress on behalf of the collective community".⁵⁵ As for traditional damages, "no reference is made to traditional kinds of damage (personal injury and damage to property), since this is assumed to be covered by civil liability actions, which are widely used in the Member States."⁵⁶

The EU Commission's strongest subsidiarity argument was to say that differences in environmental laws could create anti-competitive effects between Member States, leading to a regulatory race-to-the-bottom.⁵⁷ Since one of the EU's fundamental objectives is to protect the economic integrity of its internal market, framing the debate in this context is quite usual before any legislative intervention.⁵⁸ Even so, the White Paper acknowledged that the differences between national laws had hitherto had "no significant negative impact", and that "the available evidence suggests that they have not led to any significant competitiveness problems".⁵⁹ This

⁵³ Commission of the European Communities *Report from the Commission to the European Parliament and the Council on liability, compensation and financial security for offshore oil and gas operations pursuant to Article 39 of Directive 2013/30/EU* SWD(2015) 167 final, preface; Commission of the European Communities *Commission Staff Working Document Liability, Compensation and Financial Security for Offshore Accidents in the European Economic Area accompanying the document Report from the Commission to the European Parliament and the Council on liability, compensation and financial security for offshore oil and gas operations pursuant to Article 39 of Directive 2013/30/EU* COM(2015) 422 final at 7; The 2014 report was required by Article 39 of Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66.

⁵⁴ Commission of the European Communities, *Report from the Commission on liability, compensation and financial security for offshore oil and gas operation*, at 3.

⁵⁵ *Comm of Puerto Rico v SS Zoe Colocotroni*, (1980) 456 F. Supp. 1st Circ. 1327 at 1337 (us).

⁵⁶ Commission of the European Communities Economic and Social Committee *Opinion of the Economic and Social Committee on the "Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage"* (COM(2002) 17 final - 2002/0021(COD)) at [1.6].

⁵⁷ European Commission *White Paper*, above n 40, at 16.

⁵⁸ Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (2012) OJ C 326/1, art. 3 TEU and art. 3 TFEU.

⁵⁹ European Commission, *White Paper*, above n 40, at 29.

concession has led to scepticism about the overall need for the ELD from academics, industry and unions.⁶⁰ For example, Gerhard Roller suggests that the preventive effects of civil liability laws are difficult to estimate and may have been overestimated.⁶¹ Faure and De Smedt have said that the ELD has failed to deliver any significant benefits in this respect, and the evidence for any race-to-the-bottom effect is ambiguous at best.⁶²

Still, the White Paper argued that the polluter pays principle would perform an important deterrent function and that:⁶³

If polluters have to pay for damage caused, they will cut back pollution up to the point where the marginal cost of abatement exceeds the compensation avoided. Thus, environmental liability results in prevention of damage and internalisation of environmental costs. Liability may also lead to the application of more precaution, resulting in avoidance of risk and damage and may encourage investment in R & D for improving knowledge and technologies.

The concept of “marginal cost of abatement” stems from work by Calabresi and Malamed, in later work by Shavell, and more recently by Bergkamp and Cassotta.⁶⁴ The proposition is that unlimited liability is redundant, as the polluter will only take enough care to prevent losses up to the limit of their assets. This also has implications for the choice between strict and fault based liability, as Bergkamp explains:⁶⁵

⁶⁰ Mark Wilde *Civil Liability for Environmental Damage: a Comparative Analysis of Law and Policy in Europe and the United States* (Kluwer Law International, The Hague ; New York, 2002) at 187–189.

⁶¹ Gerhard Roller “Liability” in Richard Macrory (ed) *Reflections on 30 Years of EU Environmental Law: a High Level of Protection?* (Europa Law Publishing, Groningen, 2006) 129 at 131–132.

⁶² Michael Faure and Kristel de Smedt “The ELD’s Effects in Practice” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 299 at 308.

⁶³ European Commission, *White Paper*, above n 40, at 14.

⁶⁴ See G Calabresi and D Malamed “Property Rules, Liability Rules and Inalienability: One View of the Cathedral” [1972] *Harv. L. Rev.* 1089; Steven Shavell “The Judgment Proof Problem” (1986) 6 *Int’l Rev. L. & Econ.* 45; Steven Shavell *Economic Analysis of Accident Law* (Harvard University Press, Cambridge, Mass, 2007); Steven Shavell “On Liability and Insurance” [1982] *Bell J Econ* 120; Steven Shavell “Strict Liability versus Negligence” (1980) 9 *J.Leg.Stud.* 1; Bergkamp “Financial Security and Insurance”, above n 14; Cassotta *Environmental Damage and Liability Problems*, above n 24.

⁶⁵ Lucas Bergkamp “The Commission’s White Paper on Environmental Liability: A Weak Case for an EC Strict Liability Regime” [2000] *Eur. Env’tl. L. Rev.* 105 at 111.

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From a deterrence efficiency viewpoint, there is no difference between strict and fault liability; under either regime, polluters will invest in pollution prevention if doing so is cheaper than paying damage awards, and will continue to invest in prevention up to the point where one Euro spent on prevention generates one Euro in prevented damage. Under neither strict nor fault liability do polluters invest in prevention if doing so cost more than it saves.

Bergkamp argues that strict liability is actually inefficient in that it unnecessarily deters useful if risky industrial activities. Bergkamp even points to one empirical study by Alberini and Austin indicating that strict liability could result in more spills than fault based liability.⁶⁶ His arguments would be picked up by the European Association of Craft, Small and Medium-Sized Enterprise to support the point that that strict liability weighed too heavily on its members, and that the regime should only be triggered in cases of serious negligence.⁶⁷

As for the question of mandatory insurance, the White Paper's authors were aware of the tactics that companies in the United States had used to avoid their CERCLA liabilities, including transferring their most hazardous activities to undercapitalized subsidiaries.⁶⁸ Even so, it recommended a "cautious approach" to mandatory insurance, saying that "*the EC Regime should not impose an obligation to have financial security*".⁶⁹ Operators' financial security requirements would be voluntary, and there would be no EU superfund.

10.5 Concluding remarks

What does this discussion reveal given its implications for how the EU has chosen to determine the offshore petroleum industry's liability for environmental damage?

⁶⁶ Anna Alberini and David Austin *Strict Liability as a Deterrent in Toxic Waste Management: Empirical Evidence from Accident and Spill Data (Discussion Paper 98-16)* (Resources for the Future, Washington DC, 1998).

⁶⁷ European Association of Craft, Small and Medium-Sized Enterprises "UEAPME's opinion on the Environment Directorate General Working Paper on prevention and restoration of significant environmental damage (Environmental Liability)" (Brussels, 10 September, 2001) <www.ueapme.com> (accessed 26 February, 2016) at 2.

⁶⁸ European Commission, *White Paper*, above n 40, at 15.

⁶⁹ At 24 (emphasis as in the original text).

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For one thing, the failure of the Waste Directives taught the EU Commission the futility of addressing environmental damage liability one sector at a time, without first obtaining the unequivocal support of all Member States. So, instead of seeking to impose strict liability for all types of environmental and traditional damages, and including liability for diffuse sources of harm and retrospective liability for historic toxic contamination, and giving EU citizens broad standing to pursue polluters, the ELD would become a public law system, which focussed on harm to the environment itself, leaving traditional damages claims to the Member States own legal systems. Diffuse sources of harm and historic damage would still be included, but only if there was a clear causal connection to the harm complained of and that it could be linked to a specific operator.

These political compromises may have been necessary, but they also illustrate the EU's constitutional limitations. The principles of subsidiarity and proportionality require that the EU restrict its interference with Member States' laws to the extent that is necessary to fulfil a given objective. In the case of the ELD, Member States already had well developed tort and property damage laws that their citizens could appeal to for personal compensation; what was missing was a harmonized system of liability laws that could protect the environment itself. It made sense then that the ELD should become a public law liability regime, as the state's own competent authorities would have the best claim to represent the species, habitats, water and land that fell outside of those personal and private property protections. This also explains why the ELD was passed as a directive and not a regulation, as Member States should be given that discretion to decide how to shape the liability law to suit their own particular economic and environmental needs. It would also have consequences for later questions about the adequacy of the ELD's mandatory insurance requirements, and whether the EU Member States had an appetite for an EU-wide environmental damage compensation fund.

To see how that discretion would be employed, we must now turn to the specifics of the Environmental Liability Directive, explaining how it has been implemented at the Member State level. Only then can the discussion aim at the implications that this has had for the offshore oil and gas industry.

11 The Environmental Liability Directive

The Green Paper on Remedying Environmental Damage may have been inspired by the Waste Directives, and by other environmental damage regimes to create a tort-like strict liability regime for a wide range of environmental and property damage claims. However, as the previous chapter explained, those early ambitions morphed into a determination to create a public law liability regime that would focus only on damage to the environment itself, and which would leave many of the questions of how that liability was implemented to the Member States. Even though the ELD was modelled in part on the CLC and Fund Conventions, it would exclude the kinds of claims for traditional damages that the shipping conventions specifically addressed, insurance would not be mandatory, and it would not provide for an EU-wide environmental damage compensation fund. Yet despite these differences, the two regimes were based on a determination to make polluters pay, so that the affected communities did not have to. The question then is, would the two regimes result in outcomes that were qualitatively any different, particularly on the key issues of quantifying and securing claims for the costs of preventing and remediating environmental damage?

To answer that question, this chapter will examine the ELD's provisions in some detail. It will ask how liability is allocated, which operators will be held liable, how environmental damage is defined, and it will review some of the debate about what financial security arrangements, if any, would be required. This will tell us much, not only about the implications that expanded ELD liability would have for offshore oil and gas operator, but also as to what practical considerations need to go into creating an environmental damage liability regime. In turn, this will contribute to the thesis' final topic for discussion, the possibility of creating an international petroleum industry civil liability and fund convention.

11.1 A Two-Tiered Public Law System

As the previous chapter explained, the ELD could have taken the form of a broad civil liability regime, were it not that the Member States were unwilling to expose nationally important industries to costly and unpredictable environmental and property damage claims from a wide range of highly motivated private individuals. Instead, the White Paper recommended the creation of a two-tiered public law approach. In what Armelle Gouritin has called evidence of an endorsement of the public trust doctrine, the ELD requires that Member States designate competent authorities as the first tier of enforcement, empowering them to pursue polluters for the costs of preventive and remedial measures.¹ The competent authority's primary responsibility is:²

... to establish which operator has caused the damage or the imminent threat of damage, to assess the significance of the damage and to determine which remedial measures should be taken with reference to Annex II...

The Member State may appoint any number of competent authorities, but the ELD provides little guidance as to what characteristics might make an authority competent.

Natural and legal persons make up the second tier of enforcement. They have no standing to bring environmental damage claims themselves, and can merely request that a competent authority takes action. To make such a request, the person must have been adversely affected by environmental damage, have sufficient interest in environmental decision making, or be able to show that their rights to fair administrative procedure have been infringed.³ Member States decide what constitutes sufficient interest and what rights might have been impaired, but

¹ Armelle Gouritin *EU Environmental Law, International Environmental Law, and Human Rights Law: The Case of Environmental Responsibility* (Brill Nijhoff, Leiden Boston, 2016) at 243.

² Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56 Environmental Liability Directive, art. 11(1)-(2).

³ Article 12(1).

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recognised non-governmental environmental organisations (“NGOS”) will qualify automatically. This residual oversight role is intended to give the public a voice in important environmental damage prosecutions, allowing them to spur reluctant competent authorities to take action. The competent authority or authorities must give reasons for their decisions and they must take account of any relevant person’s views.⁴ This two tiered system is a long way from the broad civil liability regime that the Green Paper first envisaged, but it should be noted that the ELD does not prevent Member States’ from passing their own more stringent liability laws, and there is no legislative bar preventing other regulators, NGOs or private citizens from bringing administrative, environmental or criminal prosecutions outside of the ELD.⁵

11.2 Defining Environmental Damage

The ELD states that its “fundamental principle” is that the polluter pays, and, to that end, each operator that causes environmental damage, or even the imminent threat of environmental damage, should “be held financially liable, in order to induce operators to adopt measures and develop practices to minimise the risks of environmental damage so that their exposure to financial liabilities is reduced.”⁶ The logic is that operators will be deterred from taking unnecessary risks if they are sure they will have to pay for the consequences, and, at the same time, successful prosecutions will ensure that funds are available to pay for any preventive and remedial measures.

In order for the polluter pays system to work, it was vital that the ELD provide a robust definition of environmental damage. The ELD does this by creating three categories of environmental damage. These are:

1. damage to protected species and natural habitats;

⁴ Article 13 and Recital (14); Gouritin, above n 2, at 243.

⁵ The ELD operates without prejudice to more stringent Community legislation or national laws under Article 3(2)-3(3), and shall not prevent Member States from adopting more stringent prevention and remediation provisions, or identifying additional responsible parties, or adopting rules to do with double recovery from concurrent actions by competent authorities or private persons under Article 16.

⁶ Recital (2).

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2. water damage; and
3. land damage.⁷

Protected species and habitats are those listed in the schedules and annexes of the Directive 92/43/EEC (“Habitats Directive”), or Article 9 of Directive 79/409/EEC (“Birds Directive”).⁸ Water damage is defined according to Directive 2000/60/EC (“Water Framework Directive” or “WFD”).⁹ Land itself is only considered to have been damaged if there is the possibility that human health may be adversely affected, but there is no Land Framework Directive to help competent authorities to decide the criteria by which that may be judged.

The term “damage” was defined with the intention of injecting some objectivity into the assessment of environmental damage.¹⁰ It means “a measurable adverse change in a natural resource or measurable impairment of a natural service which may occur directly or indirectly”.¹¹ “Natural resource” is a general term meant to refer to all three categories of protected species and natural habitats, water and land, and “natural resource service” means the “functions performed by a natural resource for the benefit of another natural resource or the public.”¹²

Natural resources services was a concept adopted from the federal United States CERCLA and Oil Pollution Acts.¹³ The implication is that it is the services that the natural resource performs that are important, and not the natural resource itself. It follows that the competent authority has no obligation to save any particular animal

⁷ Article 2(1).

⁸ Article 2(1). The Birds Directive is now Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

⁹ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2006 establishing a framework for Community action in the field of water policy [2000] OJ L 327/1.

¹⁰ Lucas Bergkamp and Anke Van Bergeijk “Scope of the ELD Regime” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 51 at 55.

¹¹ Article 2(2).

¹² Article 2(12)-(13).

¹³ Comprehensive Environmental Response Compensation and Liability Act 1980 42 USC § 9601; Oil Pollution Act 1990 33 USC § 2716; Environmental Liability Directive, art. 2(13); Lucas Bergkamp and Anke Van Bergeijk “Scope of the ELD Regime” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 51 at 56.

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or species, to or restore any specific location to its original condition, so long as an alternative species or ecosystem could provide the same services.

An operator is only required to undertake preventive or remedial measures if its activities cause significant environmental damage, but each of the three categories of environmental damage has a different threshold for deciding what damage is significant, and it may be a challenge for the competent authority or the operator to decide when and if that threshold may have been breached. The issue has led some to question just how mandatory the ELD's obligations are. Should the operator be required to immediately begin undertaking preventive and remedial measures as soon as it becomes aware of any environmental damage, or can it wait to be ordered to act by a competent authority? Vice versa, must the competent authority take action in all situations, or can it ignore environmental damage, for example, in the interests of protecting a valuable industry from further loss. To decide that point, it is necessary to know more about the three categories of environmental damage, and about how damage is assessed and quantified.

11.2.1 Damage to Protected Species and Natural Habitats

Protected species and natural habitats are those listed under the Habitats and Birds Directives. Those directives created the Natura 2000 network of natural habitats that were earmarked “to assure the long-term survival of Europe’s most valuable and threatened species and habitats.”¹⁴ It comprises of the Habitats Directive’s Special Areas of Conservation and the Birds Directive’s Special Protection Areas, and covers approximately 20% of the European territory.¹⁵ To give an idea of its scope, the Habitats Directive identified and protected approximately 200 habitat types and 700 species of plants and animals.¹⁶ In addition, the Habitats Directive lists nine marine habitats and sixteen marine species, while the Birds Directive lists sixty bird species, and the Directives cover more than five per cent of the EU’s total

¹⁴ Commission of the European Communities *Commission Working Document on Natura 2000* (Brussels, 2002) <ec.europa.eu> (accessed 21 April, 2015) at 2.

¹⁵ Commission of the European Communities *Natura 2000 networking programme* <www.natura.org> (accessed 21 April, 2015).

¹⁶ Commission of the European Communities, *Commission Working Document on Natura 2000*, at 2.

marine area.¹⁷ This total protected area seems relatively small, but the ELD allows Member States to expand that list to include any additional species and habitats protected in their national law.¹⁸

The Birds and Habitats Directive's protections are not inviolable, however, and both Directives contain exceptions that allow the Member State to derogate from its duty to provide the highest levels of environmental protection. For example, under Article 6 of the Habitats Directive, the Member State may approve development adversely affecting a particular habitat if there is no alternative, if to do so is in the "overriding public interest", and if all necessary compensatory measures are taken. The ELD itself provides defences that allow the competent authority to exclude any "previously identified adverse effects" if they have been authorized by the relevant authorities, and these will be discussed further below.¹⁹

The threshold for damage to protected species and natural habitats is that the damage must have "significant effects on reaching or maintaining the favourable conservation status of such habitats or species."²⁰ The term "significant" is not explicitly defined, but "conservation status" means:²¹

... the sum of influences acting on a natural habitat and its typical species that may affect its long term natural distribution, structure and functions as well as the long term survival of its typical species within... [the EU and Member States' territories] or the natural range of that habitat.

A habitat's conservation status is favourable if its area is stable or increasing, if it is likely to maintain itself for the foreseeable future, and if the species it contains are also in a favourable state.²² Likewise, an individual species' conservation status is favourable when its population dynamics are stable, its natural range is not being

¹⁷ Commission of the European Communities *Natura 2000 in the Marine Environment* <www.natura.org> (accessed 17 October 2017).

¹⁸ ELD, art. 2(3).

¹⁹ Article 2(1)(a).

²⁰ Article 2(1).

²¹ See Nicholas Gard and William Desvouses "Technical and Economic Issues and Practices in ELD Application" in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 220 at 229; ELD, art 2(4)(a).

²² Article (2)(4)(b).

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reduced and is not likely to be reduced, and if there will continue to be sufficient habitat to maintain its population in the long term.

Annex I explains that environmental damage will only have occurred if there is measurable data showing that the activity had significant adverse effects on the baseline condition. The baseline condition refers to the state the environment would have been in if the incident had not occurred, as “estimated on the basis of the best information available”.²³ The baseline condition allows for “natural fluctuations”, so long they are within a normal range or are “due to natural causes or resulting from intervention relating to the normal management” of the site.²⁴ “Normal management” could include the kinds of economic activities referred to in the above exceptions, and this provides some potential to undermine the ELD’s protections.

To determine the extent of any damage, Annex I requires the competent authority to consider effects on:

- the abundance of individual organisms, their concentration and range in the affected area;
- the role those particular individuals or habitats play in overall conservation;
- their relative rarity at the local, regional or Community level; and
- the capacity of the species or habitat to regenerate and recover to the baseline state or better in a short space of time and without outside intervention.²⁵

From this, we can deduce that a significant adverse effect is not simply one which harms or kills wildlife, but which also affects their continued existence in a particular area, at least in the short to medium term. Damage is not considered to be significant if the species or habitat will quickly and naturally recover to the baseline condition without human intervention, but damage proven to affect human health is always significant.

²³ Article 2(14).

²⁴ Annex I.

²⁵ Annex I, See also Recital (15) which defines “recovery” and “natural recovery”.

The Habitats Directive predates the ELD by nearly two decades and contains similar significance thresholds, and its precedents will help to decide when the ELD's obligations will be triggered.²⁶ The difference is that while the Habitats Directive can be used to prevent operators from undertaking activities which might have a significant adverse effect, the ELD is only triggered if damage is imminent or after it has already occurred. Jonathan Verschuuren therefore argues that the Habitats Directive will provide a high level of protection because the precautionary principle means that most commercial activities will be found to have significant effects.²⁷ On the other hand, G.M. van den Broek contends that the ELD's high damage thresholds have the opposite effect.²⁸ She explains that it will be very difficult for the competent authority to adduce prima facie evidence that an activity's negative effects have exceeded the baseline condition's normal rate of variance, or to prove that the protected species or natural habitat will fail to recover in a short space of time.²⁹ Her general point is that the courts frequently lack the historical data needed to establish the baseline, so the thresholds will only be triggered in the most serious cases.³⁰

Gard and Desvousges suggest that the problem of establishing the baseline condition could be overcome by making comparisons with other similar locations, by use of historic, national and regional biological, geological and water quality data, and they suggest that this could be accomplished using tools such as MODELKEY.³¹ MODELKEY identifies relevant stressors including, but not limited to:³²

²⁶ Gard and Desvousges "Technical and Economic Issues and Practices in ELD Application", above n 22, at 230.

²⁷ Jonathan Verschuuren "Effectiveness of the Wild Birds and Habitats Directive in the Wadden Sea Area: Will the Tiger Lose its Teeth?" (paper presented to Scientific Wadden Sea Symposium: Monitoring and Assessment in the Wadden Sea, Edsbjerg, 2005) 7.

²⁸ GM van den Broek "Environmental Liability and Nature Protection Areas: Will the EU Environmental Liability Directive Actually Lead to the Restoration of Damaged Natural Resources" (2009) 5 *Utrecht Law Review* 117.

²⁹ At 119–120.

³⁰ At 122.

³¹ Gard and Desvousges "Technical and Economic Issues and Practices in ELD Application", above n 22, at 226.

³² Michaela Hein and others "Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on Marine and Freshwater Ecosystems and Biodiversity: Key findings and recommendations of MODELKEY" (15 December, 2010) MODELKEY <www.modelkey.org> (accessed 11 March 2016) at 3.

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... toxic chemicals arising from point source discharges or diffuse pollution, altered habitat properties due to hydromorphological changes, altered species interaction due to the invasion of alien species or disease and increased mortalities due to the presence of emerging pathogens.

MODELKEY is an acronym for “Models for Assessing and Forecasting the Impact of Environmental Key Pollutants on Marine and Freshwater Ecosystems and Biodiversity” and it was developed to aid Member States in meeting the Water Framework Directive’s requirements. An offshore oil well blowout would have its greatest and most immediate impact on the marine environment and its denizens, so it is very important to analyse how the ELD defines water damage.

11.2.2 Water Damage

Under the ELD, water damage means:³³

...any damage that significantly adversely affects:

- (i) the ecological, chemical and/or quantitative status or the ecological potential, as defined in Directive 2000/60/EC, of the waters concerned, with the exception of adverse effects where Article 4(7) of that Directive applies; or

At first, the ELD only applied to the EU’s inland, ground and surface waters, and its geographical scope was circumscribed by the outer limit of the EU’s territorial waters.³⁴ The major impact of the new Offshore Safety Directive was that it expanded this scope to include marine waters defined by Directive 2008/56/EC, the Marine Strategy Framework Directive (“MSFD”).³⁵ Marine waters includes the “waters, the seabed and subsoil on the seaward side of the baseline from which the extent of territorial waters is measured extending to the outmost reach of the area where a Member State has and/or exercises jurisdictional rights, in accordance with the UNCLOS”, as well as to the coastal waters defined by the Water Framework Directive, as “far as the aspects of environmental states are not already addressed through that Directive or other Community legislation.”³⁶ The MSFD also requires

³³ ELD, art. 2(1)(b).

³⁴ See Water Framework Directive, art. 2(7).

³⁵ ELD, art. 2(1)(b)(ii).

³⁶ Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66 (“OSD”), art. 38(1); ELD, art. 2(1)(b); Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19, art.s 2(1) and 3(1).

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Member States to take account of transboundary effects that those activities might have on other states in the same marine region or subregion, but it is not clear what affect this might have on offshore operators' legal liability for transboundary pollution damage.

The ultimate aim of the Water Framework Directive is to “achieve the elimination of priority hazardous substances and contribute to achieving concentrations in the marine environment near background values for naturally occurring substances.”³⁷ Under the Water Framework Directive, Member States must strive to achieve “good ecological status” and “good ecological potential” for all bodies of water, as defined by Annex V.³⁸ Annex V measures water quality as either high, good, moderate or poor status, in terms of its biological quality (flora and fauna), hydromorphological quality (river or tidal flows and levels), and physico-chemical elements (nutrient concentrations, temperature, oxygen balance and transparency). Similarly, the MSFD aims to protect the marine environment, restoring adversely affected marine ecosystems, and phasing out pollution “so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea.”³⁹ The MSFD contains its own definitions of “environmental status” and “good environmental status” and it remains to be seen if there will be any noticeable difference between how the ELD is applied to activities in territorial waters and how it is applied to activities in marine waters.⁴⁰

When the ELD was first enacted, it was not clear whether water damage would be significant if only a part of a body of water was affected, or whether the competent authority would have to wait to make a determination until the entire body of water was damaged.⁴¹ One EU Commission working paper proposed that the threshold would be crossed once the entire water body had deteriorated from one water

³⁷ Water Framework Directive, Recital (26)-(27).

³⁸ Water Framework Directive, art. 2.

³⁹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19, art. 2.

⁴⁰ Marine Strategy Framework Directive, art. 3 and Annex I.

⁴¹ Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks* (Final Report prepared for the European Commission, Brussels, 16 December 2013) (Project No 20141174) at 12.

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quality status to a lower one.⁴² The more authoritative Common Position held that “it is no longer required that water’s quality should worsen from one of the categories defined in the Water Framework Directive to another.”⁴³ For example, in 2009 an accidental sewage discharge killed thousands of fish in Southport’s Three Pools waterway in the United Kingdom. The discharge reduced the water body’s biological quality element (the fish), from a good to a poor status along a 5 km stretch of the 17 km water way.⁴⁴ The Environment Agency decided that there was no need for the entire stream to have been damaged before remediation activities could be activated. Its task was eased considerably by good quality baseline data.

In a more recent German case, the court held that a body of water will have deteriorated as soon as at least one of its elements has fallen by at least one class.⁴⁵ The German court referred to this as the “one out all out rule”, and said that it should apply even to deterioration of the most heavily modified bodies of water in the lowest class condition.⁴⁶ Other jurisdictions have opted for different thresholds. Poland has set a more stringent water damage threshold to include deterioration in the quality of bathing water, or water intended for human consumption, as well as adverse changes to the quantity and quality of groundwater, and those environments depending upon groundwater.⁴⁷

11.2.3 Land Damage

The threshold for damage to land is much harder to trigger, as it requires:⁴⁸

... contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, or under land, of substances, preparations, organisms or micro-organisms.

⁴² At 60.

⁴³ Commission of the European Communities *Common Position of the Council on the adoption of a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage* (SEC(2003) 1027 final 2002/0021 (COD) [2003] OJ C 277E/10) at 4.

⁴⁴ Barbara J Goldsmith, Richard DeSanti and Edward Lockhart-Mummery “Case Studies” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 250 at 253.

⁴⁵ Judgement of the Court (Grand Chamber) of 1 July 2015 *Bund für Umwelt und Naturschutz Deutschland eV v Bundesrepublik Deutschland* Case C - 461/13 OJ C 352/30.

⁴⁶ At [59]–[70].

⁴⁷ *Stevens & Bolton LLP*, above n 42, at 72.

⁴⁸ ELD, art. 2(1)(c).

Unlike damage to protected species and natural habitats or water damage, there is no external Land Framework Directive to provide guidelines against which land damage can be assessed, and the requirement that there be significant risk to human health sets a high threshold.⁴⁹ This suggested that land would enjoy little protection unless it happens to lie inside of the Natura 2000 networks, or was close to a body of water protected by the Water Framework Directive. Surprisingly, the “REFIT Evaluation of the Environmental Liability Directive” found just the opposite, that more than half of all Member State’s’ reported prosecutions involved damage to land.⁵⁰ Land law is amongst the most well-developed of pre-existing Member State laws, and it is possible that familiar regulatory and private property protections are still being employed in preference to the ELD.⁵¹ The Commission argued that the “forthcoming Thematic Strategy for Soil Protection” and developing a Soil Framework Directive will harmonize the measurement of damage to land, but at present the ELD contains limited guidance on the issue and the proposal for a directive has since been withdrawn.⁵²

Bergkamp and Bergeijk are troubled by the high threshold for land damage, and also by the lack of external guidance to decide when harm is significant.⁵³ Despite their concerns, it seems that such issues can be most easily addressed at the Member State level. For example, the Stevens & Bolton report describes how in Hungary the threshold has been lowered so that is no longer limited to contamination causing a serious risk to human health.⁵⁴ In addition, the report cites United Kingdom guidelines which specify that land damage will count as significant if it causes symptoms ranging from headaches and sore throats, to birth defects, disease, and

⁴⁹ Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)* (Final report prepared for the European Commission - DG Environment, Paris, 2013) at 45.

⁵⁰ Commission Staff Working Document *REFIT Evaluation of the Environmental Liability Directive* COM(2016) 204 final; SWD(2016) 122 final at 27.

⁵¹ Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks*, above n 42, at 71–72.

⁵² Commission of the European Communities *Common Position of the Council*, above n 44, Annex III; Commission of the European Communities *Withdrawal of Obsolete Commission Proposals* (2014) OJ C 153/03.

⁵³ Bergkamp and Van Bergeijk “Scope of the ELD Regime”, above n 14, at 62.

⁵⁴ Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks*, above n 42, at 71.

death. Bergkamp and Bergeijk are right to raise these issues, but any ambiguities may be dealt with at the Member State level, as the ELD intends.

If there is any question about why a thesis on liability for offshore oil and gas exploration has a component on land damage, there is an answer. According to the Marine Strategy Framework Directive, land begins above the low water mark, and that means that any oil contamination to land above that mark is counted as land damage. Oil spills at sea can easily cause damage above the low water mark. For example, oil spray from the 1993 *Braer* spill caused so much damage to farmland that 23,000 sheep had to be moved from their normal grazing land, and claims for compensation for extra labour, machinery, feed, fertilizer to regenerate the grass, and for lost sheep and cattle totalled \$3.6m USD.⁵⁵

For oil contamination to breach the land damage thresholds, however, it would also have to have effects that were adverse to human health. That requirement might have been satisfied in the case of the *Braer* after 600 people claimed that wind-blown oil had severely damaged their homes. It is reasonable to assume that the oil would have come into close proximity to the places where people sleep, wash and prepare their food, although the CLC and Fund Conventions exclude personal injury claims, so the issue was not addressed in that case. The *Deepwater Horizon* response on the other hand, clearly caused a threat to human health as the scientific literature asserts that many compounds in oil are toxic and/or carcinogenic.⁵⁶ Crude oil contains bioavailable polycyclic aromatic hydrocarbons (“PAHs”) that dissolve easily in water, especially under the effect of dispersants. They accumulate in the food chain and can pose a threat to human health long after the visible effects disappear.

Secondly, oil spills at sea can cause damage to land-based protected species and natural habitats. Much of the damage to biodiversity occurs when birds and animals

⁵⁵ Måns Jacobsen “The Braer: Legal Aspects of a Major Oil Spill” [1995] *Sustainable Global Preparedness* (paper presented to 1995 Oil Spill Conference, Long Beach, California, 1995) www.ioscproceedings.org (accessed 1 June, 2017) 721 at 721–722.

⁵⁶ Sarah Allan, Brian Smith and Kim Anderson “Impact of the Deepwater Horizon Oil Spill on Bioavailable Polycyclic Aromatic Hydrocarbons in Gulf of Mexico Coastal Waters” (2012) 46 *Environmental Science & Technology* 2033 at 2033.

enter the polluted water in search of food.⁵⁷ Further, disruptions in the marine food chain will have an impact on flora and fauna far inland. Studies of the *Exxon Valdez* showed that weathered oil could survive in pockets in the intertidal zone, impacting salmon, shorebirds and sea otters for decades.⁵⁸ It could also impact on salmon runs in areas like the Pacific north-west that support apex predators, like grizzly bears, and provide much-needed nutrients to vegetation.⁵⁹ Bears routinely scavenge along the shoreline, and can ingest oil directly from dead whales, fish, seal and sea and river otters, and indirectly from grooming their own contaminated fur.⁶⁰

Peterson et al. concluded that ingestion of oil had led to chronic exposure to toxins with cascading and persistent sublethal effects on many species.⁶¹ They observed that the indirect interactions in the rocky intertidal zone after the *Exxon Valdez* resembled the dynamics of the *Torrey Canyon*, and lasted for over a decade. This finding challenges the view of the IOPC Fund, amongst others, that the marine environment recovers naturally and easily without human intervention saying that such expectation of:⁶²

... rapid recovery based on short generation times of most intertidal plants and animals are naïve and must be replaced by a generalized concept of how interspecific interactions will lead to a sequence of delayed indirect effects over a decade or longer.

Many years have passed since the *Exxon Valdez*, but researchers observed that harlequin ducks and sea otters were affected for two decades, and longer lived killer whales have yet to recover.⁶³ The overall point is clear, marine oil spills may strike at sea, but their effects persist, cascade and reverberate throughout the food chain, up to and including humankind.

⁵⁷ See E.B. Cowell "Oil Pollution of the Sea" in R Johnston (ed) *Marine Pollution* (Academic Press, London; New York, 1976) 353.

⁵⁸ Charles Peterson and others "Long-Term Ecosystem Response to the Exxon Valdez Oil Spill" (2003) 302 *Science* 2082 at 2083–2084.

⁵⁹ Anne Post "Why Fish Need Trees and Trees Need Fish" (2008) November *Alaska Fish and Wildlife News*; Peter Moore "Ecology: Nutrient Consequences of Salmon Spread" (1998) 396 *Nature* 314.

⁶⁰ United States Bureau of Land Management *Northwest National Petroleum Reserve - Alaska: Environmental Impact Assessment, Volume 2* (Bureau of Land Management, Alaska, 2003) at 93–94.

⁶¹ Charles Peterson and others "Long-Term Ecosystem Response to the Exxon Valdez Oil Spill" (2003) 302 *Science* 2082 at 2083–2084.

⁶² At 2084-2085.

⁶³ Brenda Ballachey and others "Timelines and mechanisms of wildlife population recovery following the Exxon Valdez oil spill" [2017] (Deep Sea Research Part II, Elsevier Ltd, in press).

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As for the legal liability issue, marine oil spills, whatever the source, could involve all three environmental damage categories. Whether the oil impacts on a marine habitat or species or species protected by the Habitats and Birds Directives, the Water Framework and Marine Strategy Framework Directives will ensure that offshore oil and gas operators will be held liable for any significant damage they cause to all coastal and marine waters. Oil spray could be blown onto land above the low water mark, and this could also pose a significant threat to human health. The Member State may prefer to let nature take care of itself, but the science shows that oil can have serious effects on intertidal zones and species long after the immediate oil pollution threat has diminished, and that could mean that competent authorities could find themselves processing and responding to requests for action well into the future. The onus then is on the Member State to treat such incidents seriously, to restore the impacted area to the baseline condition as effectively as possible, and to ensure that the liable operator pays for the costs.

11.3 Strict and Fault Based Liability for Environmental Damage

Where the CLC and Fund Conventions opted for strict liability to ease the plaintiff's burden of proof, the ELD contains both strict and fault-based liability. Annex III lists a wide range of hazardous occupational activities and directives that will be subject to strict liability, while other unlisted activities are subject to fault-based liability. Unfortunately, Annex III has not been amended to include the Offshore Safety Directive. This raises the question, will offshore oil and gas activities be subject to strict or fault-based liability?

The ELD itself does not use the term strict. It simply states that the responsible operator “should, in principle, bear the cost of the necessary preventive or remedial measures”, and the costs of assessing damage or its imminent threat.⁶⁴ Liability is not absolute because the ELD provides a set of exceptions and defences to excuse

⁶⁴ ELD, Recital (18).

the operator from liability in “situations where the damage in question or imminent threat thereof is the result of certain events beyond the operator’s control.”⁶⁵

Article 3(1) ELD states that the operator is liable for:

- (a) environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities;
- (b) damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.

Annex III lists the twelve broad types of hazardous operational activities that are subject to strict liability for any damage they cause to any of the three categories of the environment.⁶⁶ The list includes activities covered by the Integrated Pollution Prevention and Control Directive (“IPPC Directive”), and those involving the discharge of toxic and persistent pollutants into surface or groundwater, but, as mentioned above, Annex III does not mention the OSD.⁶⁷ The effect of Article 3(1)(b) is that operators of activities that are not listed in Annex III will only be liable if they are at fault, and then only for damage to protected species and natural habitats. Operators of these non-hazardous activities will not be responsible for water or land damage, regardless of how negligent their conduct may have been. This makes it critical to ensure that offshore activities are actually included in the Annex, and that topic will be addressed in the next chapter.

11.3.1 Strict Liability in the United Kingdom and Germany

The McKenna and Clarke reports argued that any environmental liability directive should be consistent with Member State laws, and the strict liability rules from the United Kingdom’s common law and the German Civil Code have had an influence.

⁶⁵ Recital (20).

⁶⁶ Whether or not offshore oil and gas activities will fall under Annex III is another question that will be addressed in Chapter 12.

⁶⁷ Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [1996] OJ L 257/26, Annex III.

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Like the case of *Rylands v Fletcher*, the ELD also imposes strict liability for hazardous activities, which are those most likely to do mischief if their products escape, so that the operator must keep them at their own peril.⁶⁸ *Rylands v Fletcher* provides that the defendant can “excuse himself by shewing that the escape was owing to the plaintiff’s default; or perhaps if the escape was the consequence of vis major, or the act of God”.⁶⁹ Similarly, the ELD provides operators should not be held liable for events that are outside of their control, such as third party intervention, and, just like the 1992 CLC Convention, it excludes damage or its imminent threat if it is caused by acts of war or “natural phenomenon of exception, inevitable and irresistible character”.⁷⁰ Lord Goff later held that questions of strict liability should be left to Parliament, and the ELD likewise provides that its strict liability provisions are subject to Member States’ transposing legislation.⁷¹

Strict liability is also central to Germany’s Law on Environmental Liability, and Article 1(1) of that law stated that:⁷²

If a person suffers death or injury to his body or health, or if property is damaged due to an environmental impact that issues from one of the facilities named in Appendix 1, then the operator of the facility shall be liable to the injured person for the damage caused thereby.

As the provision only applies to damage to health or property, the German law, like so many other Member States, omits claims for damage to the environment itself.

The German Act also provides an Annex that listing specific installations whose owners will be subject to strict liability.⁷³ It then creates a presumption that the most inherently suited facility will be assumed to be responsible. The presumption is only rebuttable if the circumstances showed that some other facility was more inherently suited. As Article 1(6)(1) puts it:

⁶⁸ *Rylands v Fletcher* (1866) LR 1 Exch 265, aff’d (1868) LR 3 HL 330.

⁶⁹ *Rylands v Fletcher* [1866] LR 1 Ex 265 at 279–280.

⁷⁰ ELD, Recital (20), art. 8(3) and art. 4.

⁷¹ *Cambridge Water Co v Easter Counties Leather Plc* [1994] 2 AC 264; Bill Atkin “The Rule in *Rylands v Fletcher*” in Stephen Todd (ed) *The Law of Torts in New Zealand* (6th ed, Thomson Reuters, Wellington, NZ, 2013) 571 at 573.

⁷² Commission of the European Communities *Communication from the Commission to the Council and Parliament and the Economic Social Committee: Green Paper on Remedying Environmental Damage* (COM(93) 47 final, Brussels, 14 May 1993) at 15; Law on Environmental Liability, Gesetz über die Umwelthaftung (UmweltHG) of 10 December 1990.

⁷³ Section 1, “Installation liability for environmental impacts”.

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Inherent suitedness in a particular case is determined on the basis of the course of business, the structures used, the nature and concentration of the materials used and released, the weather conditions, the time and place at which the damage occurred, the nature of the damage, as well as other conditions which speak for or against the causation of the damage in the particular case.

The ELD therefore mirrors the German law in that both impose strict liability on certain listed hazardous activities or facilities, and, as is discussed below, both consider proximity as a factor in determining causation.⁷⁴

11.3.2 Causation

Whether liability is strict or fault based the competent authority must prove that the operator did in fact cause the damage, and that the damage falls within the scope of the ELD. The ELD is broadly worded to include both direct and indirect causation. Indirect causation includes circumstances where damage in one area, or to one species, has cascading effects as predators and prey move away from the directly polluted areas.⁷⁵ Indirect damage claims may call for a great deal of speculation on the part of expert witnesses and it may be difficult to prove that physical changes in one environment are due to changes elsewhere, or that the damage was significant enough to trigger the ELD's thresholds.

The ELD does not provide a standard test for causation, leaving the issue to be decided by Member State law. This often involves asking the “but-for” question, which asks if the damage would have happened but-for the defendants actions.⁷⁶ One common law option is the “proximate cause” test, which considers issues of foreseeability of harm, proximity in both space and time, and policy questions such as the floodgates argument.⁷⁷ Another alternative frequently used in France,

⁷⁴ *Raffinerie Mediterranee (ERG) SPA and Others v Ministero Dello Sviluppo Economico and Others* (ENI Divisione Exploration and Production SPA, intervening) Case C-378/08 [2010] 3 CMLR 9 at [57].

⁷⁵ Bergkamp and Van Bergeijk “Scope of the ELD Regime”, above n 14, at 56.

⁷⁶ Stephen Todd “Causation and Remoteness of Damage” in Stephen Todd (ed) *The Law of Torts in New Zealand* (5th ed, Brookers, Wellington, NZ, 2009) 941 at 942; Raymond Youngs *English, French & German Comparative Law* (2nd ed, Routledge-Cavendish, London, 2007) at 452–457; Jaap Spier and Olav Haazen “Comparative Conclusions on Causation” in Jaap Spier (ed) *Unification of Tort Law: Causation* (Kluwer Law International, The Hague ; Boston, 2000) 127 at 127; CC van Dam *European Tort Law* (Oxford University Press, New York, 2006) at 280.

⁷⁷ Spier and Haazen “Comparative Conclusions on Causation”, at 131.

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Germany, Greece and Austria, is the “adequacy” or “effective cause” theory, which asks whether the defendant’s conduct would have been sufficient to cause the harm suffered.⁷⁸

The *Raffinerie Mediterranee* case provides the definitive judicial statement on causation in the ELD. The case involved consideration of Article 4(5) of the ELD, which allows liability to be attributed for “pollution of a diffuse character”, as it concerned contamination of a site by many different petrochemical operators dating back to the 1960s. The ECJ ruled that:⁷⁹

Directive 2004/35 does not preclude national legislation which allows the competent authority acting with the framework of the directive to operate on the presumption, also in cases involving diffuse pollution, that there is a causal link between operators and the pollution found on account of the fact that the operators’ installations were located close to the polluted area. However, in accordance with the ‘polluter pays’ principle, in order for such a causal link thus to be presumed, that authority must have plausible evidence capable of justifying its presumption, such as the fact that the operator’s installation is located close to the pollution found and there is a correlation between the pollutants identified and the substances used by the operator in connection with his activities.

The Grand Chamber affirmed that it is not necessary that the competent authority prove that the operators were at fault, negligent or had intent to cause damage, but there must be, “inter alia, a causal link established between one or more identifiable polluters and concrete and quantifiable environmental damage.”⁸⁰

The case may not be entirely relevant to the problem that this thesis is most concerned with, as offshore oil well blowouts and explosions can be seen from miles away, leaving no question about which operation is the source of the pollution. However, one of the problems which prosecutors of *Deepwater Horizon* claims had to deal with was the legacy of pollution damage caused by natural

⁷⁸ Spier and Haazen at 132; van Dam at 270–275.

⁷⁹ *Raffinerie Mediterranee (ERG) SPA and Others v Ministero Dello Sviluppo Economico and Others (ENI Divisione Exploration and Production SPA, intervening)* Case C-378/08 [2010] 3 CMLR 9, at [70].

⁸⁰ *Raffinerie Mediterranee (ERG) SPA and Others v Ministero Dello Sviluppo Economico and Others (ENI Divisione Exploration and Production SPA, intervening)* Case C-378/08 [2010] 3 CMLR 9, at [52]; See also Nicholas Gard and William Desvousges “Technical and Economic Issues and Practices in ELD Application” in Lucas Bergkamp and Barbara J Goldsmith (eds) *EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 220 at 227–228.

sources and by many years of offshore petroleum activities in the Gulf of Mexico.⁸¹ Investigators were required to use chemical fingerprints to decide whether oil pollution damage had actually come from the Macondo well. Future OSD litigation could well involve the same sorts of causation difficulties.

11.3.3 The Operator

Having established what the ELD means by environmental damage, how it allocated strict and fault-based liability, and how it deals with questions of causation, the thesis should turn to the question of deciding who exactly is to be held liable. The ELD defines the “operator” as:⁸²

...any natural or legal, private or public person who operates or controls the occupational activity or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of such an activity has been delegated, including the holder of a permit or authorisation for such an activity or the person registering or notifying such an activity.

It should also be noted that, consistent with Article 193 TFEU, the ELD:⁸³

... shall not prevent Member States from maintaining or adopting more stringent provisions in relation to the prevention and remedying of environmental damage, including the identification of additional activities to be subject to the prevention and remediation requirements of this Directive, and the *identification of additional responsible parties* (emphasis added).

Member States can expand the term “operator” to include the person “to whom decisive economic power over the technical functioning of such an activity has been delegated”, or who is permitted or authorised to carry out the activity, and even the person who registers or notifies that activity, if the Member State so chooses. The phrasing has its roots in the 1994 Directive on the incineration of waste, and the 1996 IPPC Directive which defined the operator as “any natural or legal person who operates or controls the installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the

⁸¹ Kevin Murray and others “Fingerprinting of Weathered Oil Residues from the Deepwater Horizon Oil Spill: The Importance of Multiple Lines of Investigation” (paper presented to International Oil Spill Conference Proceedings, May 2017).

⁸² ELD, art. 2(6).

⁸³ ELD, art. 16(1).

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installation has been delegated.”⁸⁴ The European Economic and Social Committee (“ESC”) has recognized that the definition exposed banks and insurers, and that they “should therefore be safeguarded and not given inappropriate responsibilities such as prior assessment of risks which do not fall within their traditional sphere of responsibilities.”⁸⁵ The White Paper also had concluded that liability should only be directed at the persons exercising active control of the activity causing the damage; “Lenders not exercising operational control should not be liable.”⁸⁶

Boyer and Porrini examine the issue and conclude that widening liability to include lenders does not address the problems of moral hazard and asymmetric information sharing.⁸⁷ Bergkamp asked whether liability rules are preferable to regulatory rules, as regulation is more predictable, but there are efficiency advantages to be had in governing a free market by tort.⁸⁸ Bergkamp and van Bergeijk characterise the regime as one of “producer-notifier-parent-corporation-manager-operator” liability, and suggest that liability should be allocated according to a hierarchy.⁸⁹ The competent authority should look first to the permitted operator, and only after that to other persons and only if they exercise effective operational control. Martin Hedemann-Robinson supports the view that the operator definition should be very broad, however, and could capture persons with legal and *de facto* control such as major shareholders and directors with joint and several liability.⁹⁰ Like Bergkamp and van Bergeijk, he anticipates that the broad definition will increase litigation,

⁸⁴ See Marie-Louise Larsson *The Law of Environmental Damage: Liability and Reparation* (Kluwer Law International ; Norstedts Juridik, The Hague ; Boston : Stockholm, 1999) at 244–245; Council Directive 94/67/EC of 16 December 1994 on the incineration of hazardous waste [1994] OJ L 365/34, art. 2(6). Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [1996] OJ L 257/26, art. 2(12).

⁸⁵ Economic and Social Committee *Opinion on the Communication from the Commission to the Council and Parliament and the Economic and Social Committee: Green Paper on Remedying Environmental Damage* [1994] OJ C 133/02 at [4.4].

⁸⁶ Commission of the European Communities *White Paper on Environmental Liability* (COM(2000) 66 final, 9 February 2000 European Commission,) at [4.4].

⁸⁷ Marcel Boyer and Donatella Porrini “The Choice of Instruments for Environmental Policy: Liability or Regulation” in Timothy Swanson (ed) *An Introduction to the Law and Economics of Environmental Policy: Issues in Institutional Design* (JAI, Amsterdam; Boston, 2002) 245.

⁸⁸ Lucas Bergkamp *Liability and Environment: Private and Public Law Aspects of Civil Liability for Environmental Harm in an International Context* (Kluwer Law International, Hague; London; New York, 2001) at 213.

⁸⁹ At 54.

⁹⁰ Martin Hedemann-Robinson *Enforcement of European Union Environmental Law: Legal Issues and Challenges* (2nd ed, Routledge, London ; New York, 2015) at 604–606.

despite the intention to avoid the complex legal machinations which accompanied the CERCLA Superfund's nebulously termed "potentially responsible party".⁹¹

In practice, several Member States have transposed legislation to include their particular concepts of secondary liability.⁹² The Bio Intelligence report explains how in Portugal, directors, officers and managers will be held jointly and severally liable along with the company, and the parent company too can be held liable if there is "an abuse of legal personality or contravention of the law."⁹³ In Spain, the legal and de facto managers and administrators may be held liable for decisions not to comply with the ELD. The liable parties may include successor companies, manufacturers, importers and suppliers of the product which caused the damage, and receivers and liquidators may also be held liable. In general, Bergkamp and van Bergeijk's concerns have not been borne out, however, as report explains that the majority of Member States have opted for minimum levels of transposition and the narrowest possible definition of operator.

A broader operator definition of operator raises the problem of how liability should be allocated amongst multiple defendants. Article 9 of the ELD allows Member States to set their own rules on issues such as multiple party causation, vicarious liability and veil piercing, and also allows for liability to be apportioned between the producer and the end-user of the product. This will be particularly important in relation to complex offshore petroleum activities, as they typically involve attempts to reallocate liability proportionately according to joint operator agreements, and third party service contracts, as has been discussed above.

Chris Clarke argues that proportionate liability is rarely used in the United States because it increases transaction costs and expenses, because it shifts the risks to the public purse, and because it discourages settlement between defendants.⁹⁴ In the EU, Austria, Belgium, Cyprus, the Czech Republic, Denmark, Germany, Greece, Hungary, Ireland, Italy, Latvia, the Netherlands, Portugal, Romania, Slovenia,

⁹¹ Bergkamp and Van Bergeijk, "Scope of the ELD Regime", above n 14, at 52.

⁹² Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)*, above n 50, at 57–59.

⁹³ At 58.

⁹⁴ Chris Clarke *Update Comparative Legal Study* (Study Contract No 201919/ MAR/B3) (2001) at 16–17.

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Spain, Sweden, and the United Kingdom, have opted for joint and several ELD liability.⁹⁵ Only Bulgaria, Finland, France, Lithuania and Slovakia have chosen proportionate liability. No Member State has opted to channel liability to a single party, but the OSD may change this picture, as it directs that Member States must be certain that the permitted operator is also the party which will be held liable for ELD environmental damage claims.⁹⁶ It will be up Member States to decide how far their OSD implementing laws go towards capturing the full range of lenders, directors, company officers and managers or other parties that the term “operator” could apply to.

11.4 Preventive and Remedial Measures

As explained above, the ELD’s obligations are enforced by Member State appointed competent authorities. It is up to the competent authority to decide whether the operator has caused significant environmental damage, and what preventive and remedial measures it must undertake. Some academics have suggested that these obligations are “self-executing”, in that the operator must undertake preventive and remedial measures as soon as significant damage occurs, and the competent authority has no choice but to enforce those obligations. However, we know that Member States have discretion about how they interpret the ELD, and there are exceptions in the Habitats and Birds Directive allowing it to forgive a certain amount of environmental damage. So the question is, just how discretionary is the ELD? To understand that, this section will review the ELD’s instructions concerning preventive and remedial measures.

11.4.1 Preventive Measures

As Benjamin Franklin once said, “an ounce of prevention is worth a pound of cure.” If an industrial accident ever happens, the best-case outcome would be that no environmental damage occurs at all. The ELD adopts this wisdom, and Article 5(1) provides that if there is “an imminent threat of such damage occurring, the operator

⁹⁵ Barbara J Goldsmith and Edward Lockhart-Mummery “The ELD’s National Transposition” in Barbara J Goldsmith and Lucas Bergkamp (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, United Kingdom, 2013) 139 at 156.

⁹⁶ Offshore Safety Directive, Recital (11).

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shall, without delay, take the necessary preventive measures.” If the operator fails to avert the danger, then it must immediately inform the competent authority so that remedial measures can begin without delay.⁹⁷

Imminent threat of damage means that there must be “sufficient likelihood that environmental damage will occur in the near future.”⁹⁸ The term “sufficient likelihood” is not defined, and neither is “near future”. This could make it more difficult for either the competent authority or the operator to decide just how imminent and significant that threat might be. Much will depend upon the Member State’s industry regulations and the operator’s safety case and emergency management procedures, but the instruction that the operator acts without delay suggests that it would not wait for the competent authority’s orders. In the case of preventive measures then, the ELD is self-executing, but does that mean that the competent authority must also act?

The competent authority has four specific powers with regard to preventive action. It may:⁹⁹

- (a) require the operator to provide information on any imminent threat of environmental damage or in suspected cases of such an imminent threat;
- (b) require the operator to take the necessary preventive measures;
- (c) give instructions to the operator to be followed on the necessary preventive measures to be taken; or
- (d) itself take the necessary preventive measures.

Article 5(4) states that the competent authority “shall require that the preventive measures are taken by the operator.” The competent authority will work with the operator in the initial stages of any incident to decide what those measures should be. It is only if the operator fails to comply with the competent authority’s instructions, “cannot be identified, or is not required to bear the costs under this Directive” because it did not cause the incident, or because it was excused from liability under one of the ELD’s defences and exceptions, that the competent

⁹⁷ ELD, art. 5(2).

⁹⁸ Article 2(9).

⁹⁹ Article 5(3).

authority may take the preventive measures itself.¹⁰⁰ The term to note there is “may”, the article cannot be used to compel the competent authority to undertake any preventive measures, with good reason as the next section will explain.

11.4.2 Remedial Measures

If preventive measures fail to prevent significant environmental damage from occurring, then remedial measures should begin and should overlap with any ongoing preventive measures. Thus, the operator “shall, without delay, inform the competent authority of all relevant aspects of the situation”, and take:¹⁰¹

... all practicable steps to immediately control, contain, remove, or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services...

According to Annex II, the operator must identify a range of appropriate “potential remedial measures” and submit them to the competent authority for approval, unless the competent authority has already taken its own actions under Article 6(2)(e) and (3).¹⁰² As with preventive measures, the competent authority has broad powers to manage the emergency response and environmental restoration.¹⁰³ While the competent authority can undertake remedial measures itself “at any time”, the ELD states that the competent authority “shall require that the remedial measures are taken by the operator”.¹⁰⁴ Again, it leaves that decision in the competent authority’s hands, recommending that it “may” undertake remedial measures itself if the operator has failed to comply with obligations, cannot be identified, or is excused from bearing the costs, and only as a “last resort”.¹⁰⁵ Even then, the operator will still be held liable for those costs.¹⁰⁶

¹⁰⁰ Article 5(4).

¹⁰¹ Article 6(1)(a).

¹⁰² Article 7(1).

¹⁰³ Article 6(2)-(3).

¹⁰⁴ Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community [2006] OJ L 64/52, art.s 5(4) and 6(3).

¹⁰⁵ Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community [2006] OJ L 64/52, art.s 5(4) and 6(3).

¹⁰⁶ Article 8(5).

The competent authority decides which remedial measures should be undertaken, taking into consideration “the nature, extent and gravity of the various instances of environmental damage concerned ... the possibility of natural recovery” and any “risks to human health”.¹⁰⁷ It must invite “observations” from non-governmental organisations or other people affected under Article 12, including the people on whose land the remedial measures are carried out, and the operator has a right of response.¹⁰⁸ If the competent authority decides to disregard those comments, then it must provide reasons for doing so, and the decision may be reviewed in court or by some other competent “independent and impartial public body”.¹⁰⁹ That review procedure must be subject to any national laws regulating access to justice, and any administrative review process must be “exhausted prior to recourse to judicial proceedings.”¹¹⁰

11.4.3 Are Preventive and Remedial Measures Self-Executing?

The general instructions that the operator is to act “without delay” and “immediately”, have led Edward Brans to conclude that both the preventive and remedial measures requirements are “self-executing”, meaning that “no legal order of a public authority is necessary to make them binding and enforceable.”¹¹¹ The logic is that self-executing provisions can significantly reduce delays and prevent further costly damage. The obvious disadvantage is that the operator may be required to undertake expensive and unnecessary operations before the competent authority has decided what measures are necessary, or even whether any action is needed at all.¹¹² If the measures were unnecessary, then the operator could have grounds to seek reimbursement, and that could lead to further transaction costs.

Valerie Fogleman says that such provisions are quite rare in environmental legislation but she agrees with Andrew Waite’s statement that mandatory

¹⁰⁷ Article 7.

¹⁰⁸ Article 7(4) and 12(3).

¹⁰⁹ Article 13.

¹¹⁰ Article 13(2).

¹¹¹ Edward Brans “Fundamentals of Liability for Environmental Harm Under the ELD” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 31 at 46.

¹¹² Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks (Final Report prepared for the European Commission, Brussels, 16 December 2013) (Project No 20141174)* at 93.

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enforcement was “one of the most significant features of the new regime.”¹¹³ In their view, the competent authority has no choice but to compel the responsible operator to undertake preventive and remedial measures. She argues that the instruction that the competent authority should undertake measures as a “last resort” instruction means that the competent authority actually cannot undertake any preventive or remedial measures unless and until the operator has failed to comply with its obligations.¹¹⁴ However, it is important to pay close attention to the interplay between Article 6(2) and Article 6(3). Article 6(2) only says that the competent authority “may, at any time” require the operator to take action, including any necessary remedial measures. Article 6(3) simply makes it clear that if any remedial measures are to be undertaken then that responsibility falls upon the operator. Neither Article specifies that the competent authority must compel an operator to do anything, or that it must do anything itself.

This point was acknowledged by the European Commission’s Directorate-General of the Environment.¹¹⁵ The EU Commission had originally recommended that Member States be compelled to undertake preventive and restorative measures whenever the operator could not be identified, was insolvent, or was not liable for the costs.¹¹⁶ The Common Position deleted this requirement, saying that it “considered such a requirement as being too strict and preferred to leave full discretion to competent authorities in deciding whether environmental damage should be remedied or not”.¹¹⁷ This may reduce the ELD’s long-term impact, but it

¹¹³ Andrew Waite “The Quest for Environmental Law Equilibrium” in G Betlem and Brans, Edward H P (eds) *Environmental Liability in the EU: the 2004 Directive Compared with US and Member State Law* (Cameron May, London, 2006) at 71 and 86-87.

¹¹⁴ Valerie Fogleman “Enforcing the Environmental Liability Directive: Duties, Powers and Self-Executing Provisions” (2006) 4 *Env Liability* 127 at 132 and 142.

¹¹⁵ See Milieu Law & Policy Consulting and International Union for Conservation of Nature *Experience Gained in the Application of ELD Biodiversity Damage* (European Commission - DG Environment, 2014) at 92 where it notes how the competent authority has discretion about whether the operator must carry out preventive or remedial measures.

¹¹⁶ Commission of the European Communities *Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage* (2002), art. 6; Fogleman “Enforcing the Environmental Liability Directive”, above n 115, at 132.

¹¹⁷ Commission of the European Communities *Common Position of the Council on the adoption of a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage* (SEC(2003) 1027 final 2002/0021 (COD) [2003] OJ C 277E/10) at 10.

only reinforces the theme that the ELD intends to leave key decisions to the discretion of the Member State.

11.4.4 Primary, Complementary and Compensatory Measures

The ELD was designed to cover all industries and any source of environmental damage, so the term remedial measures has been crafted to maximise flexibility of application. Remedial measures means:¹¹⁸

... any action, or combination of actions, including mitigating or interim measures to restore, rehabilitate or replace damaged natural resources and/or impaired services, or to provide an equivalent alternative to those resources or services as foreseen in Annex II.

Annex II of the ELD provides two separate frameworks for remedial measures. The first framework provides guidance on “primary”, “complementary” and “compensatory” measures that are to be used in relation to damage to water, or to protected species and natural habitats. The second contains a much less detailed set of instructions relating to land damage.

Primary measures are those intended to return the damaged natural resources or services to, or towards, the baseline condition.¹¹⁹ Complementary or compensatory measures may be used to provide a “similar level of natural resources/and or services as were foregone” if the primary measures are ineffective or slow to take effect.¹²⁰ Complementary measures could include creating a replacement habitat elsewhere, geographically linked to the original site where possible. Compensatory remedial measures are actions taken to compensate for interim losses until primary remediation measures can take effect. These are additional measures that may be undertaken either at the damaged site, or at an alternative site. “Interim losses” refers to the loss of functionality of the natural resources or services, but, because

¹¹⁸ Article 2(11).

¹¹⁹ For more detailed information on primary, compensatory and complementary remediation measures see Gary Bigham and others “The Remediation Regimes” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 95.

¹²⁰ ELD, Annex II, s 1.3.2.

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the ELD intended to exclude traditional damages claims, the term specifies that it “does not consist of financial compensation to members of the public.”¹²¹

The competent authority must select the most appropriate restoration option considering the following criteria:¹²²

- Effects on public health and safety;
- the cost of implementation;
- the likelihood of success;
- prevention of future and collateral damage;
- benefits to each component of the natural resource and/or service;
- impacts on relevant social, economic, cultural concerns and other locally specific factors;
- time taken for effective restoration;
- extent of restoration at the site; and
- geographical linkage to the site.

The competent authority also has the option to take no further action if:¹²³

- (a) the remedial measures already taken secure that there is no longer any significant risk of adversely affecting human health, water or protected species or natural habitats, and
- (b) the cost of the remedial measures that should be taken to reach baseline condition or similar level would be disproportionate to the environmental benefits to be obtained.

These factors are very similar to the IOPC Fund’s compensation criteria for claims for the costs of measures of reinstatement of the environment, in that both regimes balance feasibility against cost and the desire to prevent further damage to the environment.¹²⁴ One marked difference is that the IOPC Fund frowns upon what it calls “compensatory restoration” measures.¹²⁵ This is because the assumption is that the marine environment will restore itself naturally and human interventions are just as likely to cause more harm than good. The ELD, on the other hand, was

¹²¹ Annex II, s 1(d) and Remediation Objectives, s 1.1.3.

¹²² Annex II, s 1.3 “Choice of the remedial options”.

¹²³ Annex II, s 1.3.3.

¹²⁴ See International Oil Pollution Compensation Funds *Claims Manual (October 2016 Edition)* (International Oil Pollution Compensation Funds, London, 2016) at [3.6.5].

¹²⁵ See above discussion of Quantifiable and Unquantifiable Losses in Chapter 8.

designed to address a much broader range of environmental damage to land and to protected species and habitats, and its reinstatement measures are much more interventionist. The convergence between the two systems is still remarkable given the IOPC Fund's experience with environmental damage per claims in cases like the *Antoni Gramsci* and the *Patmos*. It seems that pragmatism and common sense are universal virtues.

Gard and Desvousges explain that an environmental accident may be so severe that it may irretrievably shift the baseline condition.¹²⁶ Carlos Duarte also explains that the chance of an ecosystem returning to its pristine state is as likely as finding "Neverland".¹²⁷ Targets need to be practical, and rather than focussing on returning to a long lost state of nature, they should concentrate on maintaining "functional integrity and services of ecosystems conducive to a sustainable future."¹²⁸ Whether or not cost and feasibility will be the determining factors will depend upon the priorities of the Member State, and perhaps on how actively non-governmental organisations and affected private citizens pursue the competent authority with requests for action.

Environmental valuation methods may determine the appropriate scale of complementary and compensatory remedial measures, and will help competent authorities determine how much equivalent habitat is needed to offset the loss.¹²⁹ In the first instance, the ELD recommends "the use of resource-to-resource or service-to-service equivalence approaches", otherwise known as habitat equivalency analysis and resource equivalency analysis.¹³⁰ The two methodologies are very similar; the only difference being that habitat equivalence analysis focusses on "acre-years of equivalent habitat (e.g. the number of acres required to offset the

¹²⁶ Nicholas Gard and William Desvousges "Technical and Economic Issues and Practices in ELD Application", above n 81, at 226.

¹²⁷ Carlos Duarte and others "Return to Neverland: Shifting Baselines Affect Eutrophication Restoration Targets" (2009) 32 *Estuaries and Coasts* 29 at 29.

¹²⁸ At 36.

¹²⁹ ELD, Annex II at [1.2.2]; E Brans "Liability for Damage to Public Natural Resources under the 2004 EC Environmental Liability Directive - Standing and Assessment of Damages" in G Betlem and E Brans (eds) *Environmental Liability in the EU: the 2004 Directive Compared with US and Member State Law* (Cameron May, London, 2006) 189 at 208.

¹³⁰ ELD, Annex II, s 1.2.2; Bigham and others "The Remediation Regimes", above n 120, at 100; For more detailed information on HEA, see Gard and Desvousges "Technical and Economic Issues and Practices in ELD Application", above n 90, at 240.

lost productivity per year)”, while resource equivalency analysis expresses losses and gains in terms of the resource, for example, counting numbers of fish killed.¹³¹

If it is not possible to provide an alternative equivalent habitat or to offset the loss of life, then monetary valuation may be used, so long as the monies raised are spent on “remedial measures whose cost is equivalent to the estimated monetary value of the lost natural resources and/or services.”¹³² The time taken to restore the natural resources and/or services is also a factor, as compensatory measures will continue as long as necessary to return to the baseline.

11.4.5 Remediating Damage to Land

Annex II’s guidelines for remedying damage to land are far less detailed. Annex II, “Remediation of land damage”, explains that the relevant contaminants must be “... removed, controlled, contained or diminished so that the contaminated land, taking account of its current use or approved future use at the time of the damage”, no longer poses a significant threat to human health. Risk assessment procedures must take into account the “characteristics and function of the soil, the type and concentration of the [relevant contaminants] ... their risk and the possibility of their dispersion.” Relevant contaminants might include, “harmful substances, preparations, organisms or micro-organisms.” “Harmful substances” presumably includes oil, but there is no external Land Framework Directive to give guidance on that issue and it is up to the Member State to collate its own list of “harmful substances, preparations, organisms or micro-organisms”.

Whether the land damage contains a potential risk to human health may depend upon what use the land is being put to. Residential land, leisure areas, or areas of historical or cultural significance, will receive more attention than heavy industry zones, or remote and inaccessible regions. In the latter case, the competent authority would be more likely to elect a “natural recovery option, that is to say an option in

¹³¹ Gard and Desvouses, at 240; Bigham and others, at 100.

¹³² ELD, Annex II, s 1.2.3; Bigham and others, at 101.

which no direct human intervention in the recovery process would be taken”.¹³³ While remediation measures for protected species and natural habitats and water must continue until they are restored to the baseline condition, land remediation may cease as soon as there is no further risk of adverse effects on human health.

The earlier analysis of Article 3(1) suggests that it is only the operators of Annex III listed hazardous activities that will be held liable for any damage to land, and then only so long as the damage poses some threat to human health.¹³⁴ Operators of non-hazardous activities will only be held liable for damage to protected species and natural habitats, and then only if they have been at fault or negligence. This suggests a significant gap in the ELD’s protection of land. However, the Natura 2000 network protects a much of the EU’s land area, and areas outside of that network will be protected by Member States existing land use regulations and private property protections. Indeed, the ELD was designed to focus on damage to biodiversity because Member States already had stringent land contamination regimes featuring lower thresholds, strict liability for polluters, and no limitation periods.¹³⁵ Any overall assessment of the ELD’s effectiveness then needs to take Member State’s legal systems into account, but that is level of detail that goes beyond the scope of this thesis.

11.5 Cost recovery

The key principle of the ELD is, of course, that the polluter must pay. There are two aspects to the ELD’s cost recovery mechanisms. Article 8 provides that the operator “shall bear the costs for the preventive and remedial actions taken pursuant to this Directive”. Article 14 requires that Member States take steps to ensure that operators can obtain the appropriate financial security instruments to meet those costs.

¹³³ ELD, Annex II s 2.

¹³⁴ ELD, art. 2(1)(a) and (c).

¹³⁵ Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)* (Final report prepared for the European Commission - DG Environment, Paris, 2013) at 46.

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As with the issue of preventive and remedial measures, there is a question about whether the competent authority must pursue the operator for costs. Article 8(2) states that:

Subject to paragraphs 3 and 4, the competent authority shall recover, *inter alia*, via security over property or other appropriate guarantees from the operator who has caused the damage or the imminent threat of damage, the costs it has incurred in relation to the preventive or remedial actions taken under this Directive.

Article 14(1) of the ELD requires that:

Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive.

Does the use of the term “shall” mean that the competent authority must pursue the operator for costs in every instance? The competent authority does have the option of not seeking to recover those full costs “where the expenditure required to do so would be greater than the recoverable sum or where the operator cannot be identified.”¹³⁶ This suggests that the Member States do have discretion not to undertake prosecutions, for example, when the costs outweigh the benefits.

Hubert Bocken has pointed out that Article 8(2) is meaningless unless the Member State ensures that the guarantees are effective.¹³⁷ Bocken contends that:¹³⁸

...[rationally] speaking, guarantees which are only put in place after an incident causing environmental damage has actually occurred cannot be considered as appropriate, as they provide no protection in the event of environmentally dangerous activities being carried out by undercapitalized undertakings or undertakings overburdened by liabilities.

Financial guarantees will only be effective if they are in place before any incident occurs, and for Bocken that means insurance must be mandatory. Bocken compares Article 8 with Article 14, and says that it would be contradictory to hold that Member States must provide financial mechanisms, but that operators are not

¹³⁶ ELD, art. 8(2).

¹³⁷ Fogleman “Enforcing the Environmental Liability Directive”, above n 115, at 132; Hubert Bocken “Financial Guarantees in the Environmental Liability Directive: Next Time Better” [2006] EELR 13 at 23.

¹³⁸ Bocken, at 13.

required to make use of them.¹³⁹ He says that the contradiction can only be resolved if by accepting that the two articles are complementary. Article 14 is intended to encourage the Member State to ensure that the financial mechanisms are developed to protect the operator against liability, while Article 8(2) protects the competent authority and the public against the consequences of operator insolvency.

Bocken bases his analysis on the French, German and Dutch translations of the term “guarantee” in the 2002 ELD Proposal and the EU Commission’s Common Position.¹⁴⁰ A guarantee or security over property must be the equivalent of a “security interest”, which grants the creditor “substantive rights against a debtor or a third party that will allow him to satisfy his claim with priority over other creditors.”¹⁴¹ He argues that the EU never intended to leave the competent authority in the position of a general creditor, and therefore the operator must provide these guarantees before they are needed.¹⁴²

Bergkamp et al., on the other hand, argue that the ELD does not make insurance mandatory, and Article 8(2) clearly only requires the operator to make *ex post* measures.¹⁴³ They interpret Bocken to have meant that:¹⁴⁴

... even though the ELD does not impose *ex ante* compulsory insurance, there is a duty to provide ‘security or other appropriate guarantees’ from the moment liability has actually arisen under the ELD, ie immediately after the damage has occurred and the operator’s responsibility for it has been established.

However, this is a misreading of Bocken. What he actually says is that:¹⁴⁵

¹³⁹ At 25.

¹⁴⁰ At 21; Commission of the European Communities *Proposal for a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage* (2002); Commission of the European Communities *Common Position of the Council on the adoption of a Directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage* (SEC(2003) 1027 final 2002/0021 (COD) [2003] OJ C 277E/10).

¹⁴¹ Bocken “Financial Guarantees in the Environmental Liability Directive: Next Time Better”, above n 138, at 22–23.

¹⁴² At 22, see footnote 52.

¹⁴³ Lucas Bergkamp, Nicolas Herbatschek and Suriya Jayanti “Financial Security and Insurance” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 118 at 120; See also Bocken, “Financial Guarantees in the Environmental Liability Directive: Next Time Better”, above n 138.

¹⁴⁴ Bergkamp, Herbatschek and Jayanti, at 128.

¹⁴⁵ Bocken, at 22.

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Although the Directive does not instruct the Member State directly to do so, it necessarily requires them to set up a system of security interests in order to effectively enable the competent authority to recover from a defaulting operator the costs it has made.

Bocken means that the Member State must establish a system of security interests, which the operator must make use of, and in order to be appropriate and effective, this system must be in place before any accident happens.

While Bocken's insight that Articles 8 and 14 are complementary is illuminating, and it may be rational to put security interests in place before an incident occurs, the principle of subsidiarity insists that the Member States are free to take that risk if they choose. Equal attention should be paid to Article 8(2)'s use of the term "inter alia". The term indicates that the competent authorities' cost recovery powers are intended to be broad. That could mean requiring mandatory insurance, bank guarantees or catastrophe bonds be in place before any accident happens. Or it might entail simply seizing the operator's property, demanding that the operator raise capital via bank loans, issues of shares, or even holding directors, managers and shareholders personally liable. The point is that the choice is up to the Member States and its competent authority or authorities, and that could mean securing those costs with *ex post* or *ex ante* measures, or a mixture of both, or neither if the Member State and its regulatory agencies determine that the costs of recovery outweighed the benefits.

This conclusion is bolstered by the fact that Article 14(2) required the EU Commission to report back by the 30th of April 2010 on the Directive's effectiveness, on the availability of insurance and other kinds of financial security, and to submit "proposals for a system of harmonised mandatory financial security."¹⁴⁶ The report considered:¹⁴⁷

... the use of a graduated approach allowing Member States to gradually phase in mandatory financial security, starting with riskier activities and operators and with damage to soil and water; setting ceilings for financial guarantees; excluding low-risk activities.

¹⁴⁶ ELD, art. 14(2).

¹⁴⁷ Commission of the European Communities *Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Under Article 14(2) of Directive 2004/35/CE on the environmental liability with regard to the prevention and remedying of environmental damage* COM(2010) 581 final OJ L 143 at 3.

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The report clearly assumes that Member States would not automatically enact *ex ante* mandatory financial security requirements. Even so, by 2010 eight Member States had introduced mandatory financial security, but the difficult transposition process had delayed the development of insurance products.¹⁴⁸ France, Spain and Italy reported that their existing insurance pools offered sufficient coverage to cope with any extra demand.¹⁴⁹ Insurance was the preferred option, followed by bank guarantees and other Market Based Instruments such as funds and bonds.¹⁵⁰ Germany also reported advances in the development of ELD specific insurance, while integrated insurance policies covering both environmental damage and financial losses are now available across the EU.¹⁵¹

Bocken addressed the issue again in 2009, and finally conceded that the ELD:¹⁵²

... while not imposing compulsory *insurance* or another *specific* system of financial guarantees, requires that member states set up a system of financial guarantees enabling the competent authority to recover the costs it made in carrying out *ex officio* measures. ... The text however does not clarify when guarantees are to be considered ‘appropriate’ nor whether the security should be available from the beginning and during the whole period of the operation or, as is the majority opinion, only from the moment liability has actually arisen under the directive. It has been pointed out that the latter solution may very well be insufficient to ensure cost recovery by the authorities.

Since 2010, it has been reported that there is now sufficient capacity and products to cover ELD liabilities.¹⁵³ The actual experience has been that demand is significantly lower than expected, due to a low number of reported incidents, especially in newer markets, and possibly because of problems with the ELD’s implementation. The result is that there is weak support for, and active opposition against, a stronger mandatory insurance requirement. This debate would have an impact on the development of the OSD, as will be discussed in the next chapter.

¹⁴⁸ At 4.

¹⁴⁹ At 6.

¹⁵⁰ At 7.

¹⁵¹ Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)* (Final report prepared for the European Commission - DG Environment, Paris, 2013) at 134.

¹⁵² Bocken, “Financial Guarantees in the Environmental Liability Directive: Next Time Better”, above n 138, at 153.

¹⁵³ Commission Staff Working Document *REFIT Evaluation of the Environmental Liability Directive* COM(2016) 204 final; SWD(2016) 122 final at 47-48.

11.6 Mandatory Defences, Optional Defences and Exceptions

As was mentioned above, the ELD makes it clear that operators will not be required to bear the costs “in situations where the damage in question or imminent threat thereof is the result of certain events beyond the operator’s control.”¹⁵⁴ Operators must be notified and told the exact grounds of the decision, their available legal remedies, and any time limits those remedies are subject to, which gives them a chance to look at defending the case against them.¹⁵⁵ The ELD provides that Member States transposing legislation must implement two mandatory defences, and may incorporate two additional optional defences.

As well as that, Article IV specifies that it will not include environmental damage caused by Acts of War and overwhelming natural phenomenon. The article further provides that it does not apply to a number of International Conventions listed in Annex V, which includes the CLC and Fund Conventions, it will not apply to nuclear activities covered by the Treaty establishing the European Atomic Community, to pollution of a diffuse character unless it is possible to prove a causal link to an individual operator, or to activities aimed at serving national defence, international security, or where the “sole purpose” is to protect against natural disasters. The exceptions are evidence of the influence that the CLC and Fund Conventions had on the ELD, and that the ELD was based on the assumption that great risk of oil pollution damage would come from shipping, and that there was no need to account for possible damage from offshore oil and gas activities.

The ELD’s two mandatory defences are the “third party” and the “compliance” defences. The third party defence applies on the condition that the operator has ensured that “appropriate safety measures were in place”.¹⁵⁶ The operator is not required to make use of every possible safety measure, but only to make the appropriate preparations for reasonably foreseeable events.¹⁵⁷ Third party damage

¹⁵⁴ ELD, Recital (20).

¹⁵⁵ ELD, art. 11(4).

¹⁵⁶ ELD, art. 8(3)(a).

¹⁵⁷ *Raffinerie Mediterranee (ERG) SPA and Others v Ministero Dello Sviluppo Economico and Others (ENI Divisione Exploration and Production SPA, intervening)* Case C-378/08 [2010] 3 CMLR 9, at [67]; See also Case C-293/97 *Standley and Others* [1999] ECR I-2603 at [51]. See also Milieu Law

may include a range of intentional or negligent acts committed by a wide range of actors, but third party acts which are normal and familiar facts of life, like petty vandalism, will not break the chain of causation.¹⁵⁸ Acts of terrorism were assumed to be so extraordinary that the operator could never be considered liable. This assumption may not be so sound in the current era, but the nature of the act may still indicate whether or not the safety measures were indeed adequate. As an example, at the time of writing Shell Petroleum Development Company of Nigeria was being sued by the residents of the Ocale Community in Ogoniland and the Bille Kingdom for failing to guard against spills caused by vandalism to pipelines.¹⁵⁹ Shell's response was that they bore no responsibility for acts of theft or vandalism. Under the ELD, Shell would still be required to show that they had reasonably adequate safeguards in place.

The compliance defence applies when the damage resulted from "compliance with a compulsory order or instruction emanating from a public authority".¹⁶⁰ The act causing the damage must have been specifically required by that order, and the operator cannot claim immunity for any damage resulting from orders given subsequent to the initial accident. It is sound that operators should not be penalised for obeying lawful instructions, but the subsequent condition puts operators in a difficult position. The operator may be required to carry out preventive measures that it knows will cause more damage, and it may incur further penalties if it refuses to comply.

Article 8(4) allows Member States the option of including two additional and possibly more controversial defences. The optional defences only apply to the costs of remedial measures, and require that the operator must demonstrate that they were not at fault or negligent. First, the "permit defence" excuses the operator when the

& Policy Consulting and International Union for Conservation of Nature *Experience Gained in the Application of ELD Biodiversity Damage* (European Commission - DG Environment 2014) at 90.

¹⁵⁸ *Environment Agency (formerly) National Rivers Authority v Empress Car Co (Abertillery) Ltd* [1998] 1 All ER 481; [1999] 2 AC 22 at 34; Andrew Waite "The Quest for Environmental Law Equilibrium" in G Betlem and Brans, Edward H P (eds) *Environmental Liability in the EU: the 2004 Directive Compared with US and Member State Law* (Cameron May, London, 2006) at 42.

¹⁵⁹ Holly Ellyatt "Shell faces further suit over Nigeria oil spills" (2 March 2016) CNBC <www.cnbc.com> (accessed 3 March 2016).

¹⁶⁰ ELD, art. 8(3)(b); Lucas Bergkamp and Anke Van Bergeijk "Exceptions and Defences" in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 80 at 88.

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“emission or event was expressly authorised by, and fully in accordance with the conditions of, an authorisation conferred by or given under applicable national laws”.¹⁶¹ Second, the “state-of-the-art defence” allows the operator to avoid liability if they can prove that the activity “was not considered likely to cause environmental damage according to the state of scientific and technical knowledge at the time when the emission was released or the activity took place.”¹⁶²

The permit defence has a similar policy rationale to the compliance defence. If the emission or event was expressly authorised by a regulatory body, and was carried out in accordance with conditions set by that body, then it would be unjust to impose liability for any resulting damage.¹⁶³ This creates incentives for operators to comply with environmental laws and work place safety standards. The danger is that it also creates the potential for Member States to authorise damaging emissions or events and to exclude them from the scope of the ELD. It would then take political pressure from non-governmental organisations or citizens to force the Member State to review that authorisation, or even court action by the EU itself to test whether or not the ELD was being properly implemented.

Lucas Bergkamp criticises the ELD for creating unnecessary compliance costs, but in doing so he provides indirect support for the permit and state-of-the-art defences.¹⁶⁴ He complains that the polluter is required to pay twice, first in complying with inflexible regulations which best practice or technological innovation, and second when they are fined or forced to pay compensation for pollution damage. However, the state-of-the-art defence assumes that the operator should not be held liable for environmental risks that are unknown to science. It only requires the operator to invest in the best available precautionary measures, without specifying what that might entail, and if that prevents accidents then it is all to the good.

¹⁶¹ ELD, art. 8(4)(a).

¹⁶² ELD, art. 8(4)(b).

¹⁶³ Bergkamp and Van Bergeijk “Exceptions and Defences”, above n 161, at 91.

¹⁶⁴ Lucas Bergkamp *Liability and Environment: Private and Public Law Aspects of Civil Liability for Environmental Harm in an International Context* (Kluwer Law International, Hague; London; New York, 2001) at 63–65.

Bergkamp remains sceptical that the polluter pays principle alone will force operators to comply with safety regulations, and argues that the opposite is just as plausible. Likewise, Michael Faure says that a permit defence will be likely to result in regulatory capture as “[if] a permit would always release from liability, all a plant operator would have to do, is get a good permit with easy conditions from a friendly civil servant.”¹⁶⁵ The polluter has no incentive to take any more precautions than the regulations ask for, or which exceed the marginal cost of abatement, even if added care would lead to greater reductions in future costs.¹⁶⁶ Mark Wilde has also criticised the optional defences for reintroducing a fault qualification. Strict liability should mean strict liability, and the “fault qualification is an entirely superfluous and potentially costly complication which serves no real purpose.”¹⁶⁷ Perhaps it is not surprising then that one of the most recent and extensive evaluations of the ELD concluded that the optional defences should be deleted altogether on the grounds that they were contrary to the polluter pays principle and increased the ELD’s complexity by adding a weak fault-based system that removed the operator’s incentive to take any more care than required by the conditions of their permit.¹⁶⁸

Andrew Waite sees the operator’s strict liability as virtually absolute, and that once the competent authority has established a direct causal link between the operator’s activities and the damage, then the operator must pay.¹⁶⁹ Valerie Fogleman agrees and argues that the defences are not technically defences. The operator will already have been required to carry out the preventive or remedial measures, so that the defences, along with Article 8(3), merely provide grounds so that the operator can recover its costs, either from a third party which caused the accident or from the competent authority which ordered it to carry out those measures.¹⁷⁰

¹⁶⁵ Michael Faure “Comments on paper by Marcel Boyer and Donatella Porrini” in Timothy M Swanson (ed) *An Introduction to the Law and Economics of Environmental Policy Issues in Institutional Design* (JAI, Amsterdam; Boston, 2002) 269 at 276.

¹⁶⁶ At 276.

¹⁶⁷ Mark Wilde “Liability Issues Associated with Genetically Modified Organisms: Eu and International Developments” in G Betlem and E Brans (eds) *Environmental Liability in the EU* (Cameron May, London, 2006) 269 at 288

¹⁶⁸ Bio Intelligence Service and Stevens & Bolton LLP *Study on ELD Effectiveness: Scope and Exceptions* (European Commission - DG Environment 2014) at 262-264.

¹⁶⁹ Waite “The Quest for Environmental Law Equilibrium”, above n 171, at 71; Fogleman “Enforcing the Environmental Liability Directive”, above n 125, at 140.

¹⁷⁰ At 142–145.

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Bergkamp and van Bergeijk say that such a reading makes no sense and would render the defences “largely meaningless”.¹⁷¹ If the defences are to be meaningful, then not only should the operator be excused from the obligation to bear costs, it must also be excused from the obligation to undertake preventive or remedial measures at all. Yet that would run counter to the ELD’s policy of ensuring that preventive and remedial measures are activated immediately and without delay. The competent authority’s investigations must run concurrent with any emergency responses, and it would be foolish in the extreme to delay contingency plans while questions of liability and causation were determined.

These arguments appear to obfuscate what should be straightforward matters. Polluters should pay for the damage they have caused, and be excused from paying if they are not responsible. The self-executing provisions should only operate to the extent necessary to ensure that preventive and remedial measures are activated according to pre-determined contingency plans, and the bill for any expenses should be settled once the most appropriate response has been determined. The debate has resurfaced at the implementation stage, however, with some Member States interpreting the defences as “defences to liability”, meaning that the operator is excused from the obligation to remediate, while others have interpreted defences as “defences to costs”, meaning that operators must undertake preventive and remedial measures, but can expect to be reimbursed.¹⁷² Fifteen Member States have implemented the permit defence and 14 Member States have incorporated the state-of-the-art defence.¹⁷³ Sweden has not transposed either but considers permit compliance and state-of-the-art as mitigating factors in liability. Finland’s legislation only imposes reasonable costs for damage resulting from activities that comply with a relevant permit, and the Dutch permit defence allows the competent authority to recover only part of the remedial costs if they “cannot, in whole or in part, be reasonably attributed to the operator”.

¹⁷¹ Bergkamp and Van Bergeijk “Exceptions and Defences”, above n 161, at 89.

¹⁷² Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)* (Final report prepared for the European Commission - DG Environment, Paris, 2013) at 10–11.

¹⁷³ At 31–33.

11.7 Implementation Issues

The ELD was intended to harmonize Member State liability laws with respect to environmental damage per se, and to provide a minimum framework of polluter pays liability for Member States to follow. Yet despite the avowed intention to protect the internal market of the EU from the destabilizing effects of divergent liability laws, the ELD has provided Member States with partial or complete discretion in the areas of:¹⁷⁴

- permit and state-of-the-art defences;
- defining the operator;
- whether to include pre-existing nationally protected species and habitats;
- the choice between joint and several or proportional liability;
- whether to include additional activities within the strict liability scope of Annex III;
- whether remediation and preventive measures should be more stringent; and
- whether to make financial security requirements mandatory, and if so, what kind of securities would be adequate.

The result was that Member States had to make more difficult choices than the Directive's framers had perhaps considered, and only four Member States were able to meet the 30th of April 2007, deadline.¹⁷⁵ Article 4(3) of the TEU contains the principle of "sincere cooperation", and the failure to transpose EU legislation in a timely and accurate fashion can see the Member State prosecuted before the European Court of Justice ("ECJ").¹⁷⁶ Infringement notices were therefore issued to 23 Member States, and judgments were imposed against seven Member States in

¹⁷⁴ Barbara J Goldsmith and Edward Lockhart-Mummery "The ELD's National Transposition" in Barbara J Goldsmith and Lucas Bergkamp (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, United Kingdom, 2013) 139 at 150.

¹⁷⁵ Julia Pedraza, Kristel de Smedt and Michael Faure "Compulsory Financial Guarantees for Environmental Damage" (paper presented to 15th Joint Seminar of the European Association of Law and Economics (EALE) and the Geneva Association, Girona, Spain, 2013) at 2.

¹⁷⁶ Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (2012) OJ C 326/1; Lucas Bergkamp and Barbara J Goldsmith "Sanctions and Enforcement" in *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 315 at 319.

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2008 and 2009.¹⁷⁷ The Member States would all eventually transpose the ELD, even though the EU Commission's 2010 report noted a "broad divergence" between these laws.¹⁷⁸

Member States were to report their experiences to the Commission by 30 April 2013, which provided another opportunity to review the implementation process.¹⁷⁹ A 2013 study by Deloitte's Bio Intelligence Service Ltd, "Implementation challenges and obstacles of the Environmental Liability Directive" ("Bio Intelligence study"), examines the ELD's implementation in sixteen Member States with case studies from seven Member States.¹⁸⁰ A follow up report by Stevens & Bolton LLP, entitled "Study on Analysis of integrating the ELD into 11 national legal frameworks" ("Stevens & Bolton report"), reviewed the transposition in the remaining Member States, with the exception of Croatia.¹⁸¹ Both studies confirm the EU Commission's finding that, far from harmonising EU liability law, the ELD has resulted in "a patchwork of liability systems".¹⁸²

The Bio Intelligence report categorises the variations as either procedural or substantial.¹⁸³ The procedural variations included:¹⁸⁴

- Legislation could either copy-and-paste the ELD, or contain complex and lengthy provisions amending and covering gaps.

¹⁷⁷ Commission of the European Communities *Report from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: Under Article 14(2) of Directive 2004/35/CE on the environmental liability with regard to the prevention and remedying of environmental damage*, COM(2010) 581 final OJ L 143 at 3.

¹⁷⁸ At 3–4.

¹⁷⁹ ELD, art. 18; See Barbara J Goldsmith and Edward Lockhart-Mummery "The ELD's National Transposition" in Barbara J Goldsmith and Lucas Bergkamp (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, United Kingdom, 2013) 139 at 141–148 for a full list of transposing legislation.

¹⁸⁰ Bio Intelligence Service - Deloitte *Implementation challenges and obstacles of the Environmental Liability Directive (ELD)* (Final report prepared for the European Commission - DG Environment, Paris, 2013).

¹⁸¹ Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks* (Final Report, Brussels, 16 December 2013) (Project No 20141174).

¹⁸² Bio Intelligence Service – Deloitte, above n 181, at 7; Stevens & Bolton LLP *Study on Analysis of Integrating the ELD into 11 National Legal Frameworks*, at 5; See also Kleoniki Pouikli "Overview of the implementation of the directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage at European level" (2016) 57 *Desalination and Water Treatment* 11520.

¹⁸³ Bio Intelligence Service – Deloitte, above n 181, at 8–11.

¹⁸⁴ At 8–9.

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- The number of competent authorities could vary between one, a few, or several hundred, with efficiency decreasing as the number increased.
- Some Member States chose to publish guidelines and policy documents, and data on implementation and enforcement, which increased stakeholder understanding and cooperation.

Substantive variations included:¹⁸⁵

- There is wide variety in operator definitions, in choosing between joint or proportionate liability, and in the standing requirements for those making observations or requests for action.
- Lack of precision and translation difficulties have caused confusion, for example, whether the defences excuse operators from liability to carry out preventive or remedial measures, or merely grant them the right to reimbursement for costs, and whether the word “shall” means that the competent must recover costs in all situations.
- There are major difficulties in deciding when the thresholds for significant damage requiring preventive or remedial measures have been breached.

There were major differences in the number of ELD cases before the courts, with some Member States finding none, one, or a few instances, and Poland experiencing more than 400.¹⁸⁶ Factors explaining this paucity of cases included the pre-existing Member State liability codes were preferred to the ELD, some Member States have more Natura 2000 area than others, and a general confusion and ignorance amongst operators about their obligations.¹⁸⁷ In some instances the thresholds for remedial action were thought to be too high, in others, the competent authorities claimed that there was no need to activate ELD provisions because of the “expertise, experience,

¹⁸⁵ At 9–11.

¹⁸⁶ Stevens & Bolton LLP, above n 182, at 6, Italy reported 5000 “potential environmental incidents” between 2007 and 2012, but reported 1000 in total, and analysed 17 for the European Commission.

¹⁸⁷ Bio Intelligence Service – Deloitte, above n 181, at 12–13.

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proactivity of liable operators in implementing remedial actions, and robustness of traditional legislation”.¹⁸⁸ As one environmental underwriter stated:¹⁸⁹

If you take the UK, I would say the ELD has barely caused a ripple, largely down to regulators apparently preferring to use legislation they have more experience of, such as the Water Resources Act for example, plus a lack of support in the UK for a regime of mandatory financial provision for the ELD.

In reply to accusations of regulatory capture, or that the law might be too complicated to apply, the report argued that the ELD was fulfilling its deterrent function and that operators were simply not causing as much damage as they had before.¹⁹⁰ Commercial Risk Europe cited Client Earth lawyer Dawid Szescilo as saying that non-governmental organisations were very able at using request for action procedures.¹⁹¹ The requests had to be supported by some evidence, but as the administrative procedures were less stringent than court proceedings, non-governmental organisations were able to initiate cases quite easily. The large number of cases in Poland therefore may have been down to local activism, low damage thresholds, and user friendly administrative law provisions.

A 2016 review reveals the depth of the EU’s evaluation of the implementation process.¹⁹² As well as the Bolton and Stevens and Bio Intelligence study and the Stevens & Bolton report, the EU Commission commissioned a further report into the feasibility of creating an environmental damage compensation fund, the “REFIT Evaluation of the Environmental Liability Directive”, a fourth implementation study on “ELD Effectiveness: Scope and Exceptions”, and a fifth study on “Experience Gained in the Application of ELD Biodiversity Damage”.¹⁹³ The

¹⁸⁸ At 13.

¹⁸⁹ At 25; Commercial Risk Europe *Environmental Risk Report 2012/2013* (Rubicon Media Ltd 2012) at 5.

¹⁹⁰ Bio Intelligence Service *Study to explore the feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents, Discussion paper prepared for European Commission, DG ENV* (European Commission, 2012) at 13; See also Michael Faure and Kristel de Smedt “The ELD’s Effects in Practice” in Lucas Bergkamp and Barbara J Goldsmith (eds) *The EU Environmental Liability Directive: A Commentary* (Oxford University Press, Oxford, United Kingdom, 2013) 299 at 311.

¹⁹¹ Commercial Risk Europe, above n 190, at 6.

¹⁹² Robert Panizza *The Implementation of the Environmental Liability Directive: A Survey of the Assessment Process Carried Out by the Commission* (2016).

¹⁹³ Bio Intelligence Service *Study to explore the feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents, Discussion paper prepared for European Commission, DG ENV* (European Commission, 2012) at 90; Commission Staff Working Document *REFIT Evaluation of the Environmental Liability Directive COM(2016) 204 final*; SWD(2016) 122 final; Bio Intelligence Service and Stevens & Bolton LLP *Study on ELD Effectiveness: Scope and*

general theme of these reports is that there is a need for further harmonisation of Member State's policies regarding environmental damage.

The widely differing transposing laws and small number of ELD cases in many Member States makes it difficult to identify any clear trends. The ELD may have failed in its goal of harmonizing Member State legislation, but not if the intent was to allow Member States to introduce environmental liability laws to some extent. It is also not clear whether polluters are being deterred from carrying out damaging activities, or whether the ELD is not being enforced because existing laws are sufficient, or whether competent authorities are struggling with an overly complex system, or are being deterred from bringing prosecutions because they have been subjected to political pressures from industry. Without more empirical evidence it is simply too soon to tell.

11.8 Concluding Remarks

The ELD was the culmination of decades of discussion and negotiation stretching back at least to the Waste Directives of the 1980s. It drew inspiration from elements of the common law and from civil codes like Germany's BGB, and from international liability regimes like the Lugano and CLC and Fund Conventions. However, the ELD has diverged significantly from the CLC and Fund Convention's basic structures, and there is a good reason for this.

Where the CLC and Fund Conventions were based on a strong consensus between shipowners, insurers and oil importers, the ELD had to be developed within the EU's historical, political and constitutional context. The Waste Directives had taught the EU Commission the futility of targeting environmental damaging sectors one industry at a time, but a much broader liability regime could only be justified if left the details of implementing its many optional clauses and ambiguous terminology to the individual Member States. The result is that Member States have implemented widely differing ELD transposing laws, there is no one EU

Exceptions (European Commission - DG Environment 2014); Milieu Law & Policy Consulting and International Union for Conservation of Nature *Experience Gained in the Application of ELD Biodiversity Damage* (European Commission - DG Environment 2014. Note: REFIT stands for Regulatory Fitness and Performance Programme).

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environmental liability regime, and no agreement about how liability should be shared between individual operators and the insurance industry or industry sectors as a whole.

Instead of channelling liability to a single operator, the ELD was designed to capture both the permitted operators and those in charge of occupational activities, and that could include employees, contractors, parent companies and even creditors such as banks and insurers. Environmental damage was defined to exclude traditional personal injury or property damage claims, and would focus protecting habitats, species and areas of land and water that existing Member State laws had neglected. Instead of granting broad standing to citizens, competent authorities would have the power to oblige operators to undertake or pay for the appropriate preventive and remedial measures. That liability is unlimited, subject to certain defences, and it can be either strict or fault-based. Insurance is not mandatory, although nearly of a third of the Member States have opted for more stringent financial guarantees, and it is unlikely that the EU will seek to establish an environmental damage compensation fund.

There is a strong sense that operators and competent authorities alike are troubled by the ELD's complexities. Critics feared that the ELD would undermine economic efficiency, and that Member States could be forced to implement contradictory and nonsensical laws. The inevitable conclusion is that these fears are mostly unfounded. Member States can make their own choices of form and method in implementing directives. However, there is nothing to stop the Member States from misapplying the law. Some Member States could develop complicated regulatory regimes, generating a great deal of ELD caselaw, others could ignore the ELD in favour of their existing legal traditions.

Britain's exit from the EU could raise other unexpected issues, particularly for offshore oil and gas operators operating on the United Kingdom's Continental Shelf. Concerns that the EU itself could dissolve are very likely to distract from environmental issues that many will see as a peripheral issue. This complicated picture would not make it any easier to make predictions about how the ELD would

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apply offshore oil and gas activities, and what effect that reform would have on the ELD itself, as the following chapter will explain.

12 The EU's Offshore Safety Directive

The *Deepwater Horizon* accident caused a good deal more soul-searching amongst EU academics and leaders about the suitability of its safety and liability regulations than appears to have taken place in New Zealand. This is not surprising considering the already tremendous economic importance of the North Sea's offshore oil industry, and its hopes for developing oil and gas reserves in the Arctic and in other EU marine regions. While New Zealand has a mere half dozen offshore installations, the European Maritime Safety Agency estimated that, as of 2013, there were more than 1000 oil and gas installations in the North Sea, the Adriatic, the Mediterranean, off the Iberian Peninsula, the Baltic, and in the Black Sea.¹ These mostly operate in waters of a depth of less than 300m, but offshore petroleum exploration and production activities are becoming more difficult and complex as these easy to reach oil and gas deposits are depleted.

As this chapter will explain, much of the debate on the issue would focus on the likelihood and probable cost of a major offshore oil well accident. The EU Commission would test the waters regarding whether or not the ELD's scope of liability should be broadened, and whether it should conform more closely to the CLC and Fund Conventions' strict liability, mandatory insurance and compensation fund model, but would ultimately continue to leave such matters to the Member States.

The *Deepwater Horizon* disaster may have been unprecedented in scale, but the EU has also had its own experiences with offshore oil spills and accidents. Notable amongst them were the 1988 *Piper Alpha* disaster, which cost \$1.6bn USD and the lives of 167 men, and the 1977 *Ekofisk Bravo* platform blowout, which spilled

¹ European Maritime Safety Agency *Action Plan for Response to Marine Pollution from Oil and Gas Installations* (2013) at 9; Bernd Bluhm "What has Europe learned after the *Deepwater Horizon*/Macondo incident?" (paper presented to 2014 International Oil Spill Conference, Savannah, Georgia, USA, 2014) at 349.

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between 80,000 and 126,000 barrels of oil.² More recently the EU and Norway have witnessed:³

- The Statfjord Field oil spill (12 December 2007), where a ruptured loading hose spilled 4400 tonnes of crude oil causing Norway's second largest ever oil spill;
- The *Gulfaks C* incident (19 May 2010), a near-miss saw Norway's Statoil fight for over two months to regain control of the well;
- The *Valhall PCP* production platform fire (13 July 2011), emergency responders took an hour and thirty-seven minutes to extinguish the flames;
- The *Gannet Alpha* oil spill (10 August 2011), 216 tonnes of oil leaked from the Shell owned platform, raising concerns about the continuing safety of offshore installations which are approaching or have exceeded their expected 20-25 year life-span;⁴
- The *Elgin* Platform blowout (26 March 2012), a two month crisis off the coast of Scotland which forced the evacuation of 238 men and the shutdown of neighbouring facilities, and which may have been caused by cost cutting measures delaying maintenance of critical safety equipment.
- The Norway Ula Field spill (12 September 2012), where the production platform had to be evacuated after a significant quantify of oil escaped from a separator module.

Despite the seriousness of some of these incidents, the United Kingdom's Department of Energy and Climate Change ("DECC") only issued seven fines for the 4,123 oil spills that occurred in the United Kingdom Continental Shelf between 2000 and 2012.⁵ The volume of oil released in these spills may have been small,

² Commission of the European Communities *Commission Staff Working Paper: Impact Assessment Accompanying the Document "Proposal for a Regulation of the European Parliament and of the Council on safety of offshore oil and gas prospecting, exploration and production"* SEC(2011) 1293 final at 6–7.

³ Kristel de Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands) <www.ec.europa.eu> (accessed 6 June 2015) (2013) at 47–51.

⁴ Adam Ma'anit "Oil spill exposes Shell's ticking timebomb" *The Guardian* (United Kingdom, 11 August 2011) <www.theguardian.com> (accessed 10 June 2015).

⁵ Leo Hickman "Oil companies going unpunished for thousands of North Sea spills" *The Guardian* (25 October 2012) <www.guardian.co.uk>.

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totalling only 1,226 tonnes, but the sheer number of accidents was a poor reflection of the quality of the existing safety and regulatory systems.

After the *Deepwater Horizon*, the EU Commission feared that that operators worldwide were moving into “environments characterised by high pressure/high temperature reservoirs, deeper waters and/or extreme climatic conditions that may complicate the control of subsea installations and incident response.”⁶ As a result, the European Parliament characterized deepwater drilling as “hyper-hazardous” and in need of regulation beyond what might usually have been acceptable in a free market.⁷ It resolved that:⁸

... it is imperative for the EU and its Member States urgently to examine all aspects of oil extraction and exploration in the European Union and to take all necessary steps thereafter to ensure that such an environmental catastrophe will not occur in EU waters.

The EU Commission subsequently published a Communication lamenting the incoherent mixture of EEZ regulations and Member State laws, and it employed the familiar argument that this could be harmful to the smooth functioning of the EU's internal market.⁹ It would enact a regulation (not a directive) to ensure that operators provide a full safety case demonstrating their capacity to “prevent and respond to critical events”, and proving their “[financial] capability to handle the consequences of unforeseen events, including possible participation in suitable insurance schemes or risk-coverage instruments.”¹⁰ The regulation would expand the ELD to include offshore oil and gas activities in the EU's marine waters in the hope that clear liability provisions would “discourage the operators from underestimating risks or compromising on safety measures”.¹¹

In 2011, the EU Commission produced a working paper impact assessment to accompany its proposal for an offshore regulation (“EC Impact Assessment”).¹²

⁶ Commission of the European Communities *Communication from the Commission to the European Parliament and the Council: Facing the Challenge of the Safety of Offshore Oil and Gas Activities* COM(2010) 560 final (2011/2072 (INI), Committee on Industry, Research and Energy, 2011) at 3.

⁷ European Parliament Resolution of 7 October 2010 on EU action on oil exploration and extraction in Europe P7_TA(2010)0352, at E (14).

⁸ Recital A.

⁹ European Commission, *Facing the Challenge*, above n 6, at 3.

¹⁰ At 5–6.

¹¹ At 7–8.

¹² European Commission, *Commission Staff Working Paper*, above n 2, Annex I.

Essentially, the EU Commission's case was to argue that the costs of a one in 35 year blowout were high enough to justify an EU regulation. That assertion would be strenuously tested when the EU Commission convened meetings between its own in-house science advisory group, the Joint Research Centre, Oil & Gas UK and Norway's Oil & Gas Association, as each group debated the true cost of offshore oil and gas accidents, and the chances that the EU would suffer its own *Deepwater Horizon*.¹³

The EU Commission noted the difficulties of estimating the costs of offshore accidents, but it aimed to "present policymakers with a broad, but reliable, cost range that is based on the best available data as well as notable case studies."¹⁴ It set the lower bound cost according to a 2011 Hess report, that a blowout off the Shetland Islands could release up to 88,000 bpd and take at least a week to bring under control.¹⁵ The upper bound cost was based on one the size of the *Deepwater Horizon*, and used oil spill cost models developed for tanker spills, such as the IMO's "Non-linear functions of total spill costs (obtained by regression)" and the US EPA's Basic Oil Cost Estimation Model ("BOSCEM").¹⁶ The IMO's model estimates costs as a function of volume of oil spilled, which only goes to show that the IMO has significantly changed its stance from the days of the *Antonio Gramsci*.¹⁷ The EU Commission's DG TREN SKEMA project has used the IMO's model to estimate that the costs of oil spill accidents in Europe could be as much as \$13,100 USD per ton of oil spilled.¹⁸

BOSCEM incorporates "spill specific factors that influence costs – spill amount; oil type; response methodology and effectiveness; impacted medium; location-

¹³ European Commission *Peer Review Meetings on the Assessment of Risks in the Offshore Oil and Gas Industry: Summary Report* (28 March 2012 & 2 May 2012) final (3 July 2012) <www.ec.europa.eu> (accessed 11 June 2015) at 5.

¹⁴ European Commission, *Commission Staff Working Paper*, above n 2, at 4.

¹⁵ Hess Limited *Appraisal Well 204/10a-D (Cambo 4) Environmental Statement* (accessed 20 May 2015) at 8–2; European Commission, *Commission Staff Working Paper*, above n 2, Annex I, at 11.

¹⁶ At 8–10; IMO Marine Environment Protection Committee *Report of the Working Group on Environmental Risk Evaluation Criteria within the context of Formal Safety Assessment MEPC 60/WP11 (2010)*; DS Etkin "Worldwide Analysis of Marine Oil Spill Cleanup Cost Factors" (Proc. Arctic & Marine Oilspill Program. Tech. Sem., 2000) 161.

¹⁷ International Oil Pollution Compensation Fund "Annex I: Resolution adopted on 10 October 1980" Fund/A/ES.1/13 at 11.

¹⁸ SKEMA *Evaluation of Methods to estimate the consequence costs of an oil spill* (WP No2 - SKEMA Consolidation Studies, 2009) <www.eskema.eu> (accessed 22 May, 2015) at 9.

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specific socioeconomic value, freshwater vulnerability, habitat/wildlife sensitivity; and location type.”¹⁹ As Dagmar Etkin explains, each oil spill is unique and models can never exactly determine the costs.²⁰ For example, while heavy persistent oils may cause more damage to resort beaches, lighter oils may have greater toxicity and have more of an impact on biodiversity. Emergency responses may remove all the visible appearance of oil, but cause greater environmental damage than the spill itself, while smaller spills may cost more per unit of oil than larger ones.²¹

The EC Impact Assessment concluded that, while it was difficult to generalise, the average costs of a blowout releasing over 500,000 tonnes of oil into EU waters would be between €5 billion and €30 billion.²² As such disasters were estimated to occur once every 35 years, the average cost would be between €205m and €915m per year.²³ If all possible types of blowouts were combined, then the average annual probability of some kind of well release rose to a staggering 65%, however it expected that only 56% would be likely to last 2 days or less and only 15% would last more than 2 weeks.²⁴

Practically and politically, this presented an unacceptable situation for the EU Commission. However, before presenting its final proposal, the EU Commission would convene two peer review meetings that would pit its own Joint Research Centre (“JRC”) against the United Kingdom’s Oil & Gas and Norway’s Oil & Gas Association. Each would be asked to report on the potential risk and costs of future offshore oil and gas accidents. The groups’ various findings would determine the EU Commission’s final approach to the problem, but would also represent entirely approaches to the problems of quantifying and costing offshore oil spill accidents.

¹⁹ DS Etkin “Modeling Oil Spill Response and Damage Costs” (Proc 5th Biennial Freshwater Spills Symp, 2004) at 1.

²⁰ At 5.

²¹ At 3 and 5.

²² European Commission *Commission Staff Working Paper*, above n 2, at 11.

²³ At 17.

²⁴ At 16.

12.1.1 The JRC Report: Lessons from past accident analysis

The JRC duly submitted a report entitled “Safety of offshore oil and gas operations: Lessons from past accident analysis” (“JRC report”).²⁵ The JRC report sought to aggregate an entire “mosaic” of lessons learned from “landmark past accidents” as well as the less well-known incidents recorded in the Det Norske Veritas (“DNV”) international accredited registration and classification association’s World Offshore Accident Dataset (“WOAD”).²⁶ According to WOAD, there have been 6183 “incidents, accidents and near-misses” between 1970 and 2009, with 228 out of the total 359 blowouts occurring during initial drilling.²⁷ The total also included 285 incidents of capsizing, 278 collisions involving offshore units, 192 explosions, 1030 fires, 1851 gas releases, and 556 well problems that did not result in a well blowout.²⁸

Of the 14% of total accidents which were caused by people, only 9% were due to human error, 2% were due to act of war, sabotage or other, while the remaining 89% were due to a combination of design error, unsafe procedures, or acts or omissions.²⁹ The remaining 5323 events were due to equipment failure, and that term included equipment malfunctions, structural failures, safety system malfunction, and many kinds of ignition, all of which could be due, wholly or in part, to human error.³⁰

To put these findings in context, only 2.24% of the 6183 incidents ended in significant to severe damage or total loss of the installation. However, if all blowouts and the near misses had resulted in a catastrophic failure, then the percentage rises to a more significant 5.8%, still less than the EU Commission’s earlier estimates, but high enough to justify legislative intervention.

²⁵ Michalis Christou and Myrto Konstantinidou *Safety of offshore oil and gas operations: Lessons from past accident analysis* (Joint Research Centre, Ispra (VA), Italy, 2012) <www.ec.europa.eu> (accessed 8 June 2015).

²⁶ At 16; DNV has merged with Germanischer Lloyd and is now known as Det Norske Veritas Germanischer Lloyd.

²⁷ At 28–29.

²⁸ At 37, Tables 7 and 8.

²⁹ At 35.

³⁰ At 36.

12.1.2 The DNV Memo

Meanwhile, Norway's Oil & Gas Association commissioned DNV to undertake its own review using blowout frequency data from the Scandpower Annual SINTEF report (2011).³¹ Scandpower's analysis is based on the SINTEF Offshore Blowout Database, which contains information on 611 blowouts or well releases that have occurred around the world since 1955.³² The Scandpower report is proprietary and confidential and so was not available for direct analysis for this thesis. Even so, the International Association of Oil and Gas Producer's 2010 report "Blowout frequencies" also made use of SINTEF data. That report showed that out of 6,257 Appraisal and 7,505 Wildcat wells, only 8 and 14 surface flow blowouts occurred respectively, and out of 20,328 completed wells, which between them that operated for a combined total of 211,142 well years, only 9 suffered surface flow blowouts.³³

DNV's memo does not explain why it used Scandpower data instead of its own WOAD dataset, but one possibility is that it is because of the way that the data is expressed. Where JRC estimated the chance of an accident occurring in any one year, and seems to have counted many accidents that were not included in the Scandpower database, the Scandpower data is expressed in terms of frequency of accidents per operation, or per well year. This led to the DNV Memo's final estimate, that the total blowout frequency for all wells was just 1.50×10^{-1} per year, or one blowout every 6.7 years.³⁴ It asserted that a 15-50 day blowout might happen once every 61 years, while a 50-120 day blowout would likely only happen once every 222 years. The conclusion was that blowouts in United Kingdom waters will be small and will almost never reach shore, and the annualised costs should only be between about €4m and €9m.³⁵ The memo concludes by saying that "Macondo numbers represent an outlier compared with the other data. So while Macondo

³¹ Det Norske Veritas *Memorandum to OLF: Costs related to oil blowouts on the Norwegian and UK Continental Shelf* (No 13WEL2Z-1/BRUDE, 16 January 2012) <www.norskoljeoggass.no> (accessed 9 June 2015) at 1.

³² "SINTEF Offshore Blowout Database" <www.sintef.no> (accessed 9 June 2015).

³³ International Association of Oil & Gas Producers *Blowout frequencies* (Report no 434-2, March 2010) <www.ogp.org.uk> (accessed 9 June 2015) at 9, Table 4.1.

³⁴ Det Norske Veritas *Memorandum to OLF*, above n 31, at 2.

³⁵ At 9.

consequences are unlikely but possible, they do not represent expected outcomes.”³⁶

12.1.3 Oil & Gas UK’s Report

Oil & Gas UK and Norway’s Oil & Gas Association commissioned oil and gas industry advisor GL Noble Denton to submit a second report which also challenged the EC Impact Assessment’s estimates.³⁷ GL Noble Denton is a subsidiary of Det Norske Veritas Germanischer Lloyd, and its report would largely agree with DNV’s findings.³⁸ For example, GL Noble Denton’s report declared that 70% of blowout events were to production wells, and that, as 46% of production wells could not flow naturally and as only 22% flowed at more than 1000 bpd, there was little likelihood of another *Deepwater Horizon*.³⁹

Oil & Gas UK argued that an EU regulation would dismantle the goal-setting regime that had been the industry standard since Lord Cullen’s Piper Alpha report.⁴⁰ A regulation would replace national specialist regulators with unknown EU bodies without necessarily improving safety. Furthermore, the EU would have the power to amend a prescriptive regime without consulting the United Kingdom, and that would conflict with the Lisbon Treaty’s guarantees that the Member States have a right to control their own resources.⁴¹

GL Noble Denton added that it was inappropriate for the EC Impact Assessment to rely on tanker oil spill models because tanker accidents tend to happen right on the shoreline.⁴² This makes them far more damaging than the vast majority of offshore spills that disperse further out to sea. However, it should be noted that the EC Impact Assessment had anticipated this objection, and asserted that the IMO’s

³⁶ At 10.

³⁷ GL Noble Denton *UK Response to EC Impact Assessment on Offshore Regulation* (AA/77-01-01/11959) <www.gl-nobledenton.com> (accessed 6 June 2015).

³⁸ See DNV GL “Noble Denton marine assurance and advisory” <www.dnvgl.com> (accessed 11 June 2015).

³⁹ GL Noble Denton *UK Response to EC Impact Assessment*, above n 37, at ii.

⁴⁰ Oil & Gas UK *Health and Safety Report 2013* <www.oilandgasuk.co.uk> (accessed 8 June 2015) at 19.

⁴¹ Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (2012) OJ C 326/1, Title XXI “Energy”, art. 194(2), guarantees “a Member State’s right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply”.

⁴² GL Noble Denton *UK Response to EC Impact Assessment*, above n 37, at 6.

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models tended to underestimate spill costs as the CLC and Fund Conventions only require that the shipowner must pay for “reasonable” preventive and remedial measures.⁴³

The EU Commission's summary report commented that the differences in the various reports findings may have been down to the fact that the JRC study focussed on large release incidents such as *Deepwater Horizon*, while DNV and GL Noble Denton emphasized the many years the large number of offshore oil wells had operated in safety.⁴⁴ Its diplomatically phrased closing remark was that neither approach was “wholly right or wrong”, but each study simply reflected the “effect of differing assumptions and approaches”.⁴⁵ It was the process of technical review itself which was more important. The ultimate result was that the European Parliament's Committee on Industry, Research and Energy recommended that the regulation be changed to a directive, and the details of that will be explore below.⁴⁶

12.2 *The Offshore Safety Directive*

The final Directive 2013/30/EU on safety of offshore oil and gas operations (“OSD”) was built on the existing UK Offshore Installations Safety Case Regulations 2005.⁴⁷ Its most basic requirement is that the operators and owners of offshore installations should be required to prepare safety cases before any operations are allowed to begin.⁴⁸ As explained above, it amends the ELD so that it will include occupational activities in the EU's marine waters, as defined by the Marine Strategy Framework Directive (“MSFD”), but it does little to bolster any

⁴³ European Commission *Commission Staff Working Paper*, above n 2, at 9.

⁴⁴ European Commission, *Peer Review Meetings*, above n 13, at 13.

⁴⁵ At 13.

⁴⁶ Committee on Industry, Research and Energy *Report on the proposal for a regulation of the European Parliament and of the Council on safety of offshore oil and gas prospection, exploration and production activities*, COM(2011)0688 - C&-0392/2011 - 2011/0309(COD), (A7-0121/2013).

⁴⁷ Richard Lissack and Fiona Horlick “European Commission issues new offshore safety directive” [2015] *Offshore* 30 at 30 <www.offshore-mag.com> (accessed 12 April 2016); Note, these regulations have been updated by Offshore Installations (Offshore Safety Directive) (Safety Case etc.) Regulations 2015 which implemented the OSD in the United Kingdom.

⁴⁸ UK Health and Safety Executive *A guide to The Offshore Installations (Offshore Safety Directive (Safety case etc) Regulations 2015* (April 2015) <www.hse.gov.uk> (accessed 12 April 2016) at 4.

mandatory insurance requirements, and it still excludes traditional damages claims.⁴⁹

12.2.1 The OSD's Definitions

The OSD defines “major accident” as any accident involving “explosion, fire, loss of well control, or release of oil, gas or dangerous substances involving, or with a significant potential to cause, fatalities or serious personal injury”, which may cause serious damage to the installation, or which may cause fatalities either on the installation or on “connected infrastructure”.⁵⁰ A “major environmental incident” means an incident which results from a major accident and “which results, or is likely to result, in significant adverse effects on the environment” in accordance with the ELD.⁵¹

Article 2(3) states that:

‘offshore oil and gas operations’ means all activities associated with an installation or connected infrastructure, including design, planning, construction, operation and decommissioning thereof, relating to exploration and production of oil or gas but excluding conveyance of oil and gas from one coast to another;

Article 2(19) defines an installation as:

... a stationary fixed or mobile facility, or a combination of facilities permanently inter-connected by bridges or other structures, used for oil and gas operations or in connection with such operations. Installations include mobile offshore drilling units only when they are stationed in offshore waters for drilling, production or other activities associated with offshore oil and gas operations.

Article 2(19) introduces the term “mobile offshore drilling unit” (“MODU”). The term draws to mind drillships and semi-submersibles, but MODU refers to any development system that can be moved without substantial effort and there are more

⁴⁹ Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66 (“OSD”), art. 38(1); ELD, art. 2(1)(b); Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) [2008] OJ L 164/19, art. 3(1).

⁵⁰ ELD, art. 2(1).

⁵¹ Article 2(1) and Recital (37).

jack-up rigs than any other type of MODU.⁵² A MODU is only considered to be an installation if it is stationed in the EU's offshore waters for the purpose of carrying out oil and gas operations. It is treated as a ship when it is in transit and it must abide by international maritime conventions such as SOLAS (Safety of Life at Sea), MARPOL, and the standards of the Code for the construction and equipment of mobile offshore drilling units.⁵³ That New Zealand takes the same approach indicates that this is an internationally accepted policy.

12.2.2 The OSD's Financial Security Requirements

In terms of financial liability it OSD states that:⁵⁴

...there is a need to clarify that holders of authorisations for offshore oil and gas operations pursuant to Directive 94/22/EC⁵⁵ are also the liable 'operators' within the meaning of [the ELD], and should not delegate their responsibilities in this regard to third parties contracted to them.

The objective is that the operator "should always be the entity with the primary responsibility for safety of operations and should be at all times competent to act in that regard."⁵⁶ We recall that, just as in New Zealand, the ELD's definition of operator is very broad, focussing first on the "natural or legal, private or public person who operates or controls the occupational activity".⁵⁷ Furthermore, Article 7 states that:

Without prejudice to the existing scope of liability relating to the prevention and remediation of environmental damage pursuant to Directive 2004/35/EC, Member States shall ensure that the licensee is financially liable for the prevention and remediation of environmental damage as defined in that Directive, caused by offshore oil and gas operations carried out by, or on behalf of the licensee or the operator.

This suggested that one effect of the OSD will be that it requires Member States to take more of a channelling style approach, directing liability squarely at the licensee.

⁵² Larry W Lake and Robert F Mitchell *Petroleum Engineering Handbook: Drilling Engineering* (Society of Petroleum Engineers, Richardson, TX, 2006) at 622.

⁵³ Recital (32).

⁵⁴ Recital (11).

⁵⁵ Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons [1994] OJ L 164/3.

⁵⁶ Recital (11a); OSD, Recital (13).

⁵⁷ ELD, art. 2(6).

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As in Article 14 of the ELD, the OSD requires Member States to “facilitate the deployment of sustainable financial instruments and other arrangements to assist applicants for licences in demonstrating their financial capacity”.⁵⁸ The Member State must ensure that the licensee maintains “sufficient capacity to meet their financial obligations resulting from liabilities for offshore oil and gas operations including liability for potential economic damages where such liability is provided for by national law”, and “having sufficient resources for the immediate launch and uninterrupted continuation of all measures necessary for effective emergency response and subsequent remediation.”⁵⁹

It is for the Member State to decide what financial capacity is sufficient and what emergency responses or remediation measures will be effective. The United Kingdom already provided that membership in OPOL was a prerequisite for any application to operate on the United Kingdom’s continental shelf, and this is likely to continue even after Britain leaves the European Union. Other states may develop their own regional mutual indemnity agreements, particularly those in the Mediterranean since the European Union has acceded to the Offshore Protocol to the 1976 Barcelona Convention, which, amongst other things, calls upon its signatories to establish mandatory insurance requirements and a Mediterranean Compensation Fund.⁶⁰ The OSD itself acknowledges that “no existing financial security instruments, including risk pooling arrangements, can accommodate all possible consequences of major accidents” and states that further studies are required.⁶¹ However, the danger with relying upon private mutual indemnity agreements is that their terms may not mesh with the ELD’s categories of environmental damage liability, and they may not provide compensation for third party damage.

⁵⁸ Article 4(3).

⁵⁹ Article 4(3).

⁶⁰ Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66, Recital 51; Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (2013/5/EU) OJ L 4/13; The Barcelona Convention and the Offshore Protocol will be discussed in more detail in the chapter below.

⁶¹ Recitals 61 and 63.

12.2.3 Strict or Fault-based Liability?

It was less clear whether that liability would be strict or fault-based, however. The ELD lists all hazardous occupational activities that are to be subject to strict liability in its Annex III, and this annex has not been amended to include the OSD. Unlisted activities are only subject to fault-based liability, and then only for damage to the category of protected species and natural habitats. Without a clear reference to the OSD, the Directive runs the risk that Member States will only apply a fault-based standard, and that would exclude liability for damage to water. How then does the Annex III include offshore oil and gas activities?

Faure et al. address this issue by pointing out that the EU Commission has stated that the ELD is already applicable to offshore drilling activities, because Annex III 7(a) already refers to Council Directive 67/548/EEC of 27 June 1967.⁶² This 1967 Directive applies to the classification, packaging and labelling of dangerous substances, that is, substances that are explosive, oxidising, easily flammable, flammable, toxic, harmful, corrosive or an irritant, either in their “natural state or as produced by industry”.⁶³ Petroleum could easily fall within a number of these categories, but it seems a stretch to say that offshore oil and gas activities should be covered by a directive on packaging dangerous substances. Indeed, the EU Commission had lamented that offshore installations were not covered by the existing environmental legislation on pollution control and major accident hazards.⁶⁴ However, the EU Commission's working paper asserted that Regulation (EC) 1272/2008 on classification, labelling and packaging of substances and mixtures, which has repealed and succeeded Directive 67/548/EEC and the more

⁶² Kristel de Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands, 2013) <www.ec.europa.eu> (accessed 6 June 2015) at 332; Commission Staff Working Document *Accompanying document to the Communication from the Commission to the European Parliament and the Council: Facing the Challenge of the Safety of Offshore Oil and Gas Activities* SEC(2010) 1193 final at 15.

⁶³ Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging, and labelling of dangerous substances, art. 2.

⁶⁴ European Commission, *Facing the Challenge*, above n 6, at 6–7.

recent 1995/45/EC Directive, will apply to oil spills from 1 December 2010.⁶⁵ This is because Article 2(14) of the Regulation defines “manufacturing” as “production or extraction of substances in the natural state”, and that would include the production or extraction of oil and gas.

Annex III also includes the 1975 Waste Framework Directive, which applies to all “Waste management operations, including the collection transport recover and disposal of waste and hazardous waste, including the supervision of such operations and after-care of disposal sites”.⁶⁶ The Waste Framework Directive’s applicability to oil spills caused by tanker accidents was discussed in the 2008 *Mesquer* case, which addressed the sinking of the *Erika*.⁶⁷ The issue was whether hydrocarbons mixed with water and sediment should be considered waste that the shipping company would be obliged to recover, or whether the spill would be excluded by the application of the CLC and Fund Conventions.⁶⁸

The Court found that the term “discard” would not normally apply to hydrocarbons accidentally spilled at sea.⁶⁹ However, once the spill mixed with water and sediment, the hydrocarbons would need further processing before they could be sold or used, and must be classified as waste. It follows that any oil spill, whether from shipping or from offshore oil and gas activities, could produce waste for the purposes of the Waste Framework Directive, and that would bring such spills within Annex III of the ELD. Indeed, the Directorate-General of the Environment’s report on “Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste” has confirmed that offshore oil spills would fall within the EU’s waste legislation.⁷⁰ Therefore, whether offshore oil and gas activities are considered a dangerous activity, or a waste producing activity, they will fall under Annex III of

⁶⁵ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

⁶⁶ Council Directive 75/442/EEC of 15 July 1975 on waste OJ L 194/39 as amended by Regulation (EC) No 1882/2003; ELD, Annex III, art. 2.

⁶⁷ Nicholas de Sadeleer “The Polluter-Pays Principle in EU Law -Bold Case Law and Poor Harmonisation” in HC Bugge (ed) *Pro Natura: Festschrift Til* (Universitetsforlaget, Oslo, 2012) 405 at 415; *Case C-188/07 Mesquer* [2008] ECR I-450.

⁶⁸ *Mesquer*, at [50]-[52].

⁶⁹ At [49]-[63].

⁷⁰ Directorate-General of the Environment *Guidance on the interpretation of key provisions of Directive 2008/98/EC* (European Commission 2012) at [1.1.3].

the ELD, and be subject to the strict liability standard. It would have been more straightforward to simply amend the Annex to include the Offshore Safety Directive; one can only wonder why that did not happen.

12.2.4 An EU Environmental Compensation Fund?

At the same time as the OSD was in development, NGOs and lobby groups were calling on Member States to work towards some form of environmental compensation fund. Support for such a fund came from ClientEarth, a group of activist lawyers whose number included notable ELD academic Ludwig Krämer. It was ClientEarth who called on the United Kingdom's House of Commons to amend its legislation transposing the EU Hydrocarbons Directive 94/22/EC, so that licences would only be granted once environmental protections and financial security were in place.⁷¹ ClientEarth argued that the ELD was “badly underequipped” and that a “mandatory collective compensation scheme or other system of financial security is required as a key element of the liability regime.”⁷²

The EU does have its own environmental compensation instrument, the Solidarity Fund, but that was established mainly to provide assistance for natural disasters, and it does not apply to industrial accidents.⁷³ In 2006, the European Parliament did adopt a proposal to extend the fund to include man-made disasters, threats to public health and terrorist attacks, but this was opposed by the European Council.⁷⁴ After the 1999 *Erika* sinking demonstrated the inadequacy of the IOPC Fund's compensation limits, the EU Commission had also proposed the establishment of a supplementary €1 billion Compensation for Oil Pollution in European Waters, or

⁷¹ ClientEarth “International and EU regulation of offshore drilling: Analysis and proposals for reform” (September 2010) <www.clientearth.org> (accessed 31 March 2015) at 2–3; Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 conditions for granting and using authorizations for the prospecting, exploration and production of hydrocarbons (1994) OJ L 164/3.

⁷² ClientEarth “International and EU regulation of offshore drilling”, at 3.

⁷³ Bio Intelligence Service *Study to explore the feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents* (European Commission, 2012) at 16.

⁷⁴ Commission of the European Communities *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, The Future of the European Union Solidarity Fund* COM(2011) 613 final, 6 October 2011.

COPE Fund.⁷⁵ The COPE Fund became redundant after the IMO established its own Supplementary Fund Protocol, creating a third tier of funding of up to 750 million SDR, \$1.057bn USD at the time of writing.⁷⁶ It is possible that the same considerations went into the decision to establish the OSD, as it would not have been necessary to amend the ELD if the IMO had decided that offshore oil and gas operations should fall under the CLC and Fund Conventions.

The ELD specified that the EU Commission must report back on the feasibility of a general environmental compensation fund, leading it to commission the Bio Intelligence Service's "Study to explore the feasibility of creating a fund to cover environmental liability and losses occurring from industrial accidents".⁷⁷ This study described a Hungarian proposal following the tremendous sludge pond dam burst at Kolontár in 2010.⁷⁸ The proposed fund would have replicated the CLC and Fund Conventions to a certain extent, limiting the operator's liability to €100 million, with complementary insurance and a fund, and could easily have applied to ELD liabilities. However, a survey of stakeholder's views showed that they were generally happy with the availability of insurance for pollution damage and were negative about the proposed compensation fund.⁷⁹ The general sense was that an EU-wide compensation fund would be too difficult to coordinate with existing liability laws, that it would be too difficult to combine traditional and environmental damages, and that it would contribute to moral hazard by allowing operators to neglect their financial responsibilities in the knowledge that they could always rely upon the fund.

The OSD also directed the EU Commission to submit a further report on the general "availability of financial security instruments, and on the handling of compensation claims" and on "the effectiveness of the liability regimes in the Union in respect of

⁷⁵ Commission of the European Communities *Proposal for a regulation of the European Parliament and of the Council on the establishment of a fund for the compensation of oil pollution damage in European Waters and related measures* COM(2000) 802 final OJ C 120E/79.

⁷⁶ Kristel de Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands, 2013) <www.ec.europa.eu> (accessed 6 June 2015) at 77–78; Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 (adopted 16 May 2003, entered into force 3 March 2005).

⁷⁷ Bio Intelligence Service *Study to explore the feasibility of creating a fund*, above n 73.

⁷⁸ At 7.

⁷⁹ At 44.

damage caused by offshore oil and gas operations".⁸⁰ The subsequent 2014 report explored the effectiveness of liability and financial security regimes with respect to bodily injury, property damage and economic loss, but excluded environmental damage liability as being outside of its scope.⁸¹ In 2015, the Committee on Legal Affairs built on this report, and submitted a motion to the European Parliament which fiercely criticized the ELD and the OSD.⁸² It called upon the EU Commission to develop a compensation mechanism that would cover liability for damage to fisheries, coastal tourism and other marine sectors, that would include third-party claims for bodily injury, property damage and pure economic losses, that would diversify and strengthen the minimum financial security requirements, and that would add the OSD to the scope of the Environmental Crime Directive 2008/99/EC. It will be interesting to see how the EU Commission responds to this motion.

12.3 Academic Commentary on the OSD

The OSD has prompted an outpouring of commentary as industry consultants, law firms, insurers and classification societies, amongst others, strive to position themselves to address the needs of concerned petroleum licensees.⁸³ At the time of writing there has been little consideration of the issue in the peer reviewed journals, however. The paucity of academic commentary makes a thorough and methodical research of the issue more difficult, but still it is necessary to review some of what has been written.

⁸⁰ OSD, art. 39.

⁸¹ BIO by Deloitte *Civil Liability, Financial Security and Compensation Claims for Offshore Oil and Gas Activities in the European Economic Area* (EU Commission - DG Energy, 2014) at 46liability.

⁸² Committee on Legal Affairs *Report on Liability, Compensation and Financial Security for Offshore Oil and Gas Operations* (2015/2352(INI)) (European Parliament, 2015).

⁸³ See Clare Kempins "EU directive on safety of offshore oil and gas operations: An update" (6 October 2014) INCE & Co <www.incelaw.com> (accessed 20 November 2016); Ursula O'Donnell "New EU Directive on the safety of offshore oil and gas operations" (1 November 2013) Charles Taylor <www.ctplc.com> (accessed 20 November 2016).

Some of the articles focus on the health and safety aspects, while others attend to the Major Accident Prevention Policies.⁸⁴ Bernd Bluhm and Lito Xirotyri ask “What has Europe learned after the *Deepwater Horizon*/Macondo Incident?” but only to focus on oil spill contingency planning between Member States.⁸⁵ Barbara Goldsmith, Tara Waikem and Tara Franey explore “Environmental Damage Liability Regimes Concerning Oil Spills – A Global Review and Comparison”, but only give a brief precis of the ELD, noting that it was intended to supplement existing national environmental legislation, and commenting that it is too soon to say how and whether the ELD will be applied to onshore and offshore spills.⁸⁶

Tullio Scovazzi places the OSD in the context of the difficulties of compensating for environmental damage per se, and says that the absence of an international offshore convention can be explained by an industry preference for self-regulation.⁸⁷ He speculated that the most likely result of the *Deepwater Horizon* will be to increase the liability limits and ceilings of regional and national liability and compensation schemes. Alex Wawryk also mentions concerns that the new Directives would “dramatically increase the potential liability of companies” and would force SMEs from the market.⁸⁸ She explains that insurance and oil industry representatives both opposed mandatory insurance, preferring the flexibility offered by voluntary schemes such as OPOL.

Peter Cameron directly addresses the environmental damage issue and claims that the OSD will make almost no change to the existing EU civil liability regimes.⁸⁹ Writing in 2012, he said that the draft Regulation:⁹⁰

⁸⁴ FM Brutto and M Layfield “The New EU Offshore Safety Directive - Key Requirements and Impacts” (Offshore Mediterranean Conference, paper presented to Offshore Mediterranean Conference and Exhibition, 25-27 March, Ravenna, Italy, 2015).

⁸⁵ Bluhm, *What has Europe learned after the Deepwater Horizon/Macondo incident?* (paper presented to 2014 International Oil Spill Conference, Savannah, Georgia, USA, 2014).

⁸⁶ Barbara J Goldsmith, Tara Waikem and Tara Franey “Environmental Damage Liability Regimes Concerning Oil Spills - A Global Review and Comparison” (paper presented to 2014 International Oil Spill Conference, Savannah, Georgia, USA) at 2179.

⁸⁷ Tullio Scovazzi “Maritime Accidents with Particular Emphasis on Liability and Compensation for Damage from the Exploitation of Mineral Resources of the Seabed” in Andrea De Guttry, Marco Gestri and Gabriella Venturini (eds) *International Disaster Response Law* (TMC Asser Press ; Springer, Hague, the Netherlands; Berlin, 2012) 287 at 320.

⁸⁸ Alex Wawryk “The Regulation of Oil Spills from Offshore Installations” in Kim Talus (ed) *Research Handbook on International Energy Law* (Edward Elgar, Cheltenham, UK, 2014) at 577.

⁸⁹ Peter Cameron “Liability for Catastrophic Risk in the Oil and Gas Industry” [2012] 6 IELR 207.

⁹⁰ At 215.

The EU's Offshore Safety Directive

... is unlikely to have any direct relevance: it does not (at least in its present form) add to the debate on liability allocation nor does it address issues of who pays for oil spills. It is principally a regulatory instrument targeted at health and safety issues.

He suggests further that holding offshore operators liable would be fruitless as “there is no established means of restoring the marine environment after an oil spill; damages under the ELD would therefore be unquantifiable, making it difficult to provide insurance to cover the damage.”⁹¹

A more comprehensive review comes from Greg Gordon, who details how oil discharges could trigger both civil and criminal penalties under United Kingdom law.⁹² Gordon is sceptical that the ELD will have a meaningful impact on the offshore industry for three main reasons.⁹³ First, the ELD focuses on remediating areas that are useful to people, and most of the areas (including the North Sea) are not used for leisure activities. Secondly, at the time he was writing the OSD had yet to be transposed, so the ELD's scope was confined to coastal waters covered by the Water Framework Directive. Finally, the damage thresholds were too high and they did not apply to many habitats and species outside of the areas of the Natura 2000 network specified by the Birds and Habitats Directives. For Gordon, the ELD's reliance on external directives posed difficulties that were “even more fundamental” and were more likely to increase confusion than to plug perceived gaps in the Member States' environmental protections.⁹⁴ OPOL may not provide the best possible solution either, as the ELD's and OPOL's definitions have not been coordinated, and, as OPOL is a mutual indemnity agreement between offshore oil and gas operators, the doctrine of privity may prevent third parties from seeking to enforce its arbitration clauses.⁹⁵

Michael Faure and Hui Wang were concerned that OPOL was limited to United Kingdom waters, and that its \$250m limit might prove inadequate, but they spent

⁹¹ At 215.

⁹² Greg Gordon “Oil, water and law don't mix: environmental liability for offshore oil and gas operations in the UK; Part 2: Regulatory law, the Environmental Liability Directive and OPOL” (2013) 25 ELM 121.

⁹³ At 124–125.

⁹⁴ At 124.

⁹⁵ At 127.

little time considering the ELD.⁹⁶ Rather, their article compares and contrasts OPOL with the 1992 CLC and Fund Conventions, and explores how operators might meet their financial security obligations via various possible combinations of insurance, pooling mechanisms and self-insurance. The article is comprehensive as far as it goes, but by failing to consider the impact of the ELD, it may be missing a significant opportunity. Likewise their work with Liu Jing, “A Multilayered Approach to Cover Damage Caused by Offshore Facilities”, describes the European legal framework for offshore activities as an “interesting regional arrangement”, but one which only really concerns “regulation rather than liability and compensation.”⁹⁷

Michael Faure collaborated again with Wang Hui, Liu Jing, Philipsen Niels and Kristel de Smedt on what is undoubtedly the most comprehensive review of currently available financial security arrangements: “Civil Liability and Financial Security for Offshore Oil and Gas Activities.”⁹⁸ In what is sometimes referred to as the Metro report, De Smedt et al. speculated that EU activism following the *Deepwater Horizon* could spark a response from the IMO, similar to the way the proposed COPE Fund forced the IOPC Fund to establish the Supplementary Fund Protocol.⁹⁹ The actual experience is that the IMO has tabled the suggestion that it should take responsibility for the offshore oil industry.¹⁰⁰

The Metro report describes the ELD as a “starting point” and not the “final stage”.¹⁰¹ The major contention is that the ELD will not reach that final stage until it includes traditional damages and provides for an industry-fed compensation fund. De Smedt et al. rightly point out that the weaknesses in the ELD will also be

⁹⁶ Michael Faure and Hui Wang “Compensating victims of a European *Deepwater Horizon* accident: Opol revisited” (2015) 62 *Marine Policy* 25.

⁹⁷ Michael Faure, Liu Jing and Hui Wang “A Multilayered Approach to Cover Damage caused by Offshore Facilities” (2015) 33 *Va. Env'tl. L. J.* 356 at 375–376.

⁹⁸ De Smedt and others, *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands, 2013) <www.ec.europa.eu> (accessed 6th June, 2015).

⁹⁹ At 78.

¹⁰⁰ MEDEXPOL 2013, Workshop on the Regional Response Capacity and Coordination to Major Oil Spill in the Mediterranean Sea “On-Going Discussion at IMO on Matters Concerning Liability and Compensation for Oil Pollution Damage Resulting from Offshore Exploration and Exploitation Activities” (5 December 2013) REMPEC/WG34/INF4 at 1; This point will be discussed in the chapter below.

¹⁰¹ De Smedt and others, *Civil Liability and Financial Security for Offshore Oil and Gas Activities*, above n 98, at 23.

relevant to the OSD, in that it only protects specific categories of environmental damage, its thresholds are too high and subject to interpretation at the national level, and because there is no single financial security instrument which could cover the full costs of a catastrophic accident.¹⁰² The solution is to provide “an integrated system aiming at an efficient compensation for all offshore-related damage, including efficient liability rules and a compulsory financial guarantee.”¹⁰³ The EU should actively collaborate with oil and gas producers to develop appropriate insurance products and sensible safety standards, and with the international community to create an international agreement for “offshore-related incidents with a transboundary character.”¹⁰⁴

Their criticism of the ELD fails to account for the fact that such ideas had already been proposed and abandoned in the ELD's long difficult path from conception to adoption, however. The EU should keep working towards developing appropriate and flexible financial security arrangements, but the Member States would not accept more interference with their domestic legal traditions and industry groups are not interested in paying towards a compensation fund or risk pooling scheme. Without that buy-in from all the interested parties, no further reform will be possible.

12.4 Concluding Remarks

The OSD has amended the ELD so that operators are liable for the costs of preventing and remediating environmental damage from oil and gas activities in the EU's EEZ and continental shelf. The first issue is whether those operators will be held liable to the strict or fault-based standard, and that question had to be clarified. Strict liability only applies to listed hazardous activities, but the OSD has not been added to the ELD's Annex III. Faure et al. have made a strong argument for strict liability, on the basis that the EU Commission already believes that offshore oil and gas activities are covered by the EU's regulation on the classification, labelling and

¹⁰² At 333.

¹⁰³ At 336.

¹⁰⁴ At 341.

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packaging of substances and mixtures.¹⁰⁵ Alternatively, offshore petroleum activities would fall under the Waste Framework Directive as spilled oil would require further processing before it could be used again and therefore qualifies as “waste”. This should have resolved the matter, but it remains to be seen whether the Member States will implement the appropriate legislation.

In recent times offshore petroleum operations were curtailed and decommissioning is becoming more of a priority as maturing fields and ageing installations reach the end of their productive lifespans.¹⁰⁶ The Brexit vote caught most pundits by surprise, heralding a new era of populism and nationalist politics, and that may stall further investment or reform. Even without such political upheavals, the early indications are that Member States have had a great deal of difficulty with implementing the ELD, their experiences vary widely, and that makes it extremely difficult to make blanket predictions about how the different Member States would respond to a future offshore oil well disaster. This is a rapidly developing field, and the danger that a thesis such as this faces is in attempting to predict future events, or even to keep pace with current events. It is possible that some Member States will continue to rely upon their pre-existing statutory and tortious liability arrangements, while others may establish their own OPOL style indemnity agreement. What is clear is that the lack of harmonization of the ELD’s implementing laws will complicate operators’ efforts to understand their host Member State’s regulatory requirements for some time to come.

¹⁰⁵ De Smedt and others *Civil Liability and Financial Security for Offshore Oil and Gas Activities*, above n 98.

¹⁰⁶ Christopher Adams, Kiran Stacey and Chris Tighe “Collapse in crude brings North Sea fields near end of production” *Financial Times* (2 February 2016) <www.ft.com>; Offshore Staff “More pain ahead for UK offshore E&P, survey warns” [2016] *Offshore Magazine* <www.offshore-mag.com> (accessed 7 March 2016); Oil & Gas UK Activity Survey 2016 <oilandgasuk.co.uk> (accessed 7 March 2016) at 1.

13 Establishing an International Offshore Petroleum Liability and Fund Convention

So far this thesis has examined how the CLC and Fund Conventions came into existence to provide liability and compensation for ship-source oil pollution damage, and how they provided a model and a context within which New Zealand and the European Union created their own offshore petroleum industry marine pollution or environmental damage liability regimes. New Zealand used definitions of oil pollution damage and preventive measures from the CLC and Fund Conventions to create a marine pollution damage liability regime for offshore installations and operations, but has only recently come to grips with designing a functional mandatory insurance regime. The EU's Environmental Liability Directive was also heavily influenced by the CLC and Fund Conventions, and the implementation of the Offshore Oil and Gas Safety Directive briefly reignited the debate about whether the EU should strengthen the ELD's financial security requirements and whether it should establish an environmental damage compensation fund.

This raises the question, why has it been so difficult to establish any international offshore petroleum industry liability and fund convention? The CLC and Fund Conventions were able to proceed because there was a strong international consensus that something must be done about a problem that affected all coastal states equally, because the leaders of the shipping, oil and insurance industries were able to agree to share the costs, and because it was possible to adapt existing legal principles and insurance systems to meet the international community's demands. The problem with applying this model to offshore oil and gas activities is that the general international law of the sea is predicated on the assumption that nations have sovereign rights to exploit their own seabed mineral reserves, and, unlike ships, platforms tend to be fixed in one country's space.¹ While ships travel the world,

¹ According to Tim Stephens, the gap in global regulation is because "tankers move across international boundaries all the time, whereas platforms remain fixed in place." See Kate Galbraith "Gap in Rules on Oil Spills from Wells" *New York Times* (16 May 2010) <www.nytimes.com>.

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having little to no connection to the coastal states whose waters and territory might be affected by mishaps and the related pollution damage, offshore installations operate entirely within the jurisdiction of the host nation. Under the United Nations Convention on the Law of the Sea 1982 (“UNCLOS”), nations are only expected to cooperate with other nations at the regional level when it comes to protecting the marine environment or providing for liability and compensation regimes. At the same time, UNCLOS expanded the geographical reach of its participating states by granting them sovereign rights to govern their 200nm EEZs. It could be argued that the nation which benefits from allowing offshore oil and gas exploration and extraction activities is also the one which is best placed to regulate those activities, and, consequently, is also the one which should bear the risk of any accidental damage. This is particularly true if the state fails in its duty to properly oversee those activities, and it is that failure to take reasonable care which results in harm. Why should the international community be expected to foot the bill for what could be seen as essentially an act of self-sabotage? This could be the main reason for the lack of consensus that an international convention is needed.

The result is that the various attempts to create an international offshore industry convention have faltered, with the only tangible result leading to the creation of the North Sea’s Offshore Pollution Liability Agreement (“OPOL”). Even in the aftermath of the *Montara* and *Deepwater Horizon* disasters, there is no similar consensus about how an international convention on liability and compensation for oil pollution damage caused by the offshore petroleum industry would work, or how it would be financial secured. As this chapter will explain, when the question was most recently put to the IMO, their response was that the offshore petroleum industry was already subject to numerous international legal regimes, and that the IMO should retain its focus on regulating shipping activities. The question is, is the fact that offshore oil and gas activities fall directly within the jurisdiction of host states enough of a reason to deny the institution of an international civil liability and fund convention regime? Furthermore, given that offshore oil and gas exploration and extraction activities produce the cargo which is the subject of the CLC and Fund Conventions, is there any reason why those conventions should not be expanded to include compensation for pollution damage and preventive measures resulting from those activities?

Establishing an International Offshore Petroleum Liability and Fund Convention

This chapter asks how the general law of the sea developed in relation to marine pollution damage caused by the offshore petroleum industry, what international laws specifically apply to pollution damage from the offshore oil and gas activities and installations, what attempts have been made to create an international offshore petroleum industry liability and fund convention, and what are the prospects for one in the future?

13.1.1 The Truman Proclamation and UNCLOS

By 1945, the United States of America was becoming concerned about intrusions from foreign commercial fishing fleets and about the problem of marine pollution damage from both onshore and offshore industrial activities. President Harry Truman was confident that the United States had a legitimate claim to all of the resources of the ocean and seabed to the limits of the United States' continental shelf and that it had the technological and industrial capacity to profitably exploit those resources. As the United States' Proclamation asserted, "new sources of petroleum and other minerals" might be found under the continental shelf of the United States, and "with modern technological progress their utilization is already practicable or will become so at an early date."²

The United States' Proclamation unleashed a wave of similar annexations around the world, and in 1967 Arvid Pardo, Malta's ambassador to the United Nations, warned the General Assembly that Cold War superpower rivalry might result in actions that would despoil the oceans.³ He complained that the current laws primarily benefitted those countries with the power and technical competence to exert control over the seabed and ocean's immense resources, and that they had the potential to "lead to a competitive scramble for sovereign rights over the land underlying the world's seas and oceans, surpassing in magnitude and in its

² United Nations Division for Ocean Affairs and the Law of the Sea *The United Nations Convention on the Law of the Sea (A historical perspective)* (1998) (accessed 8 April 2015) <www.un.org>; Proclamation 2667 of September 28 1945 - Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf, 10 Fed. Reg. 12,305 (1945).

³ United Nations Division for Ocean Affairs and the Law of the Sea *The United Nations Convention on the Law of the Sea (A historical perspective)* (1998) (accessed 8 April, 2015) <www.un.org>; United Nations General Assembly *Agenda Item 92: Examination of the question of the reservation exclusively for peaceful purposes of the seabed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interests of mankind* (Twenty-Second Session, New York, 1 November 1967).

implications last century's colonial scramble for territory in Asian and Africa."⁴ The challenges and opportunities were urgent and warranted that "clear legal provision be made for an international regime, administered by an efficient international authority over the sea-bed and the ocean floor beyond a variously defined continental shelf."⁵ There was already an international authority and an international regime in place at the time, however. The United Nations had established the International Maritime Consultative Organization in 1948, although that specialist agency's empowering convention did not come into force until 1958.

That same year, the first United Nations Conference on the Law of the Sea met with the intention of surveying and unifying the law of the sea, not just in the legal, but also in the technological, economic and political sense.⁶ The 1958 conference oversaw the drafting of four major Geneva Conventions on the Law of the Seas; the Convention on the High Seas ("CHS"); the Convention on the Continental Shelf ("CCS"); the Convention on the Territorial Sea and the Contiguous Zone; the Convention on Fishing and Conservation of the Living Resources of the High Seas; and the Optional Protocol of Signature concerning the Compulsory Settlement of Disputes.⁷ The 1958 Geneva Conventions had several articles pertinent to the safe and continuing development of seabed mineral resources. For example, Article 24 of the CHS required states to "draw up regulations to prevent pollution of the sea by discharges of oil from ships or pipelines or resulting from the exploitation of the seabed and its subsoil, taking account of existing treaty provisions on the subject."⁸ That the international effort resulted in the formation of four separate conventions

⁴ United Nations General Assembly *Agenda Item 92: Examination of the question of the reservation exclusively for peaceful purposes of the seabed and the ocean floor, and the subsoil thereof, underlying the high seas beyond the limits of present national jurisdiction, and the use of their resources in the interests of mankind* (Twenty-Second Session, New York, 1 November 1967) at 12.

⁵ At 14.

⁶ Tullio Treves "1958 Geneva Conventions on the Law of the Sea" (2008) Audiovisual Library of International Law <untreaty.un.org>.

⁷ 1958 Convention on the High Seas, 450 UNTS 11 (opened for signature 29 April 1958, entered into force 30 September 1962); 1958 Convention on the Continental Shelf, 499 UNTS 311 (opened for signature 29 April 1958, entered into force 10 June 1964); 1958 Convention on the Territorial Sea and the Contiguous Zone, 516 UNTS 205 (opened for signature 29 April 1958, entered into force 10 September 1964); 1958 Convention on Fishing and Conservation of the Living Resources of the High Seas, 559 UNTS 285, (adopted 29 April 1958, entered into force 20 March 1966); Optional Protocol of Signature concerning the Compulsory Settlement of Disputes, 450 UNTS 169 (adopted 20 April 1958).

⁸ LHJ Legault "The Freedom of the Seas: A Licence to Pollute?" (1971) 21 UTLJ 211 at 213.

and a protocol did illustrate the perennial difficulty of gaining widespread acceptance of international legal norms.⁹

In the 15 years after Arvid Parvo's call for leadership in international marine law, the United Nations created a treaty banning the seabed deployment of nuclear weapons, declared that seabed resources outside of national territorial waters should be treated as the common heritage of mankind, convened the 1972 United Nations Conference on the Human Environment ("UNCHE"), and established the United Nations Environment Programme ("UNEP").¹⁰ The 1972 UNCHE conference established much of the terminology that came to be enshrined in UNCLOS.¹¹ For example, it was at UNCHE that marine pollution came to be defined as:¹²

... the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality of use of sea water and reduction of amenities.

Similar to the 1958 Geneva Conventions, UNCLOS aimed to provide a comprehensive "legal order for the seas and oceans", codifying all aspects of navigation, with sovereign rights and environmental protections for seabed resources outside of territorial waters, a suite of dispute resolution procedures, and several provisions that are applicable to offshore petroleum exploration and production activities and provide a justification for creating a liability and compensation regime.¹³ For example, Article 79 guarantees that states have the "right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resource and the prevention, reduction and control of

⁹ Tullio Treves "Historical Development of the Law of the Sea" in Donald Rothwell and others (eds) *The Oxford Handbook of the Law of the Sea* (Oxford University Press, Oxford, United Kingdom, 2015) 1 at 14.

¹⁰ UNEP aims "to be the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimensions of sustainable development within the United Nations system and that serves as an authoritative advocate for the global environment" "About UNEP" (accessed 8 April 2015) <www.unep.org>.

¹¹ United Nations Convention on the Law of the Sea 1833 UNTS 3; 21 ILM 1261 (1982) (opened for signature 10 December 1982, entered into force 16 November 1994).

¹² *United Nations Report of the United Nations Conference on the Human Environment* (Stockholm, 5-16 June 1972) 11 ILM 1416 at 73, Annex III.

¹³ United Nations Division for Ocean Affairs and the Law of the Sea *The United Nations Convention on the Law of the Sea (A historical perspective)* (1998) <www.un.org> (accessed 8 April 2015).

pollution from pipelines.” However, under Article 194, states must “take all measures necessary” to ensure that such activities do not cause pollution damage to other states’ and their environments. The Seabed Disputes Tribunal assessed these obligations in its advisory opinion on the subject of seabed mining in international waters, and opined that states owe an obligation to ensure that they exercise due diligence in monitoring sponsored contractors mining activities.¹⁴ If a state fails in that obligation then it could be held liable for transboundary damage. However, the due diligence standard requires a finding of fault, and that it led to the damage complained of. It is a lesser standard than strict liability, and it is an obligation only between one state and another. This thesis focussed on the liability that operators of offshore oil and gas activities owe to their host nation and its citizens. Questions of transboundary liability, while interesting, are outside of the scope of this work.

Under Article 235, states must ensure that their national legal systems provide for “prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural juridical persons under their jurisdictions”. Further, states are expected to:

... cooperate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

These statements are more aspirational than mandatory, however, and UNCLOS provides little detail about how a “prompt and adequate compensation” regime might be developed, or what pollution damage should be compensated, and who that compensation should be paid to. States are merely required to take account of international rules and standards and many still resist interference with their historic freedoms to navigate and to use or to pollute the global commons.¹⁵ As a result,

¹⁴ Seabed Disputes Chamber of the International Tribunal for the Law of the Sea *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), Case No 17 (2011).

¹⁵ United Nations Convention on the Law of the Sea 1833 UNTS 3; 21 ILM 1261 (1982) (opened for signature 10 December 1982, entered into force 16 November 1994), art.s 207-216; Elizabeth Kirk “Science and the International Regulation of Marine Pollution” in Donald Rothwell and others (eds)

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neither UNCLOS nor its subsequent regional conventions have provided sufficient impetus to institute a true international offshore petroleum industry liability and fund convention.¹⁶

13.2 International and Regional Marine Pollution Conventions

The three major international conventions that usually feature in discussions of this nature are:

- The International Convention for the Prevention of Pollution by Ships, (“MARPOL 73/78”);¹⁷
- The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (“London Dumping Convention”), and its 1996 Protocol;¹⁸
- The 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation (“OPRC”).¹⁹

These may oblige the owners and operators of fixed and floating offshore installations to limit and manage their waste disposal, but they do not contain rules pertaining to liability for any subsequent pollution damage. The laws have limited application to such installations, being generally created to regulate shipping activities, but there is some overlap with mining activities, particularly when they are carried out by ships or shiplike structures.

The *Oxford Handbook of the Law of the Sea* (Oxford University Press, Oxford, United Kingdom, 2015) 516 at 526.

¹⁶ See Tullio Scovazzi “Maritime Accidents with Particular Emphasis on Liability and Compensation for Damage from the Exploitation of Mineral Resources of the Seabed” in Andrea De Guttry, Marco Gestri and Gabriella Venturini (eds) *International Disaster Response Law* (TMC Asser Press; Springer, Hague, the Netherlands; Berlin, 2012) 287.

¹⁷ International Convention for the Prevention of Pollution from Ships and its Protocol of 1978 (MARPOL 73/78) 12 ILM 1319 (1973), 17 ILM 546 (1978) (opened for signature 2 November 1973, entered into force 2 October 1983).

¹⁸ 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1046 UNTS 120 (London Dumping Convention) (opened for signature 29 December 1972, entered into force 30 August 1975); 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 36 ILM 1 (1997) (opened for signature 7 November 1996, entered into force 24 March 2006).

¹⁹ International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC Convention) 1891 UNTS 78 (opened for signature 30 November 1990, entered into force 13 May 1995).

MARPOL 73/78 was adopted at a time when routine operational discharges from ships were seen as a greater threat to ocean health than the more spectacular accidental oil spills, either from ships or from offshore petroleum exploration and production activities.²⁰ It was intended to prevent ships from scrubbing ballast and fuel tanks in prohibited areas of the ocean and obliging port states to develop facilities to allow ships' oily wastes to be retrieved and safely processed. It specifically excludes the "release of harmful substances directly arising from the exploration, exploitation and associated offshore processing of sea-bed mineral resources" or related activities such as hydrocarbon flaring.²¹ However, it does oblige fixed and floating rigs to comply with the requirements applying to ships over 400 gross tonnage other than oil tankers.²² Like ships, fixed and floating rigs must maintain a record of operations involving oil and oily mixture discharges, and are prohibited from discharging oil or oil mixtures into the sea, except if the discharge is diluted to less than 15 parts per million, and they must also comply with coastal states requirements regarding oil pollution emergency plans.²³

MARPOL's Annex V also prohibits the dumping of garbage within 500 m of platforms, and that could include drill cuttings and other solid waste gathered during construction and operation. On the other hand, the London Dumping Convention does not apply to drill cuttings and other wastes arising from the "exploration, exploitation and associated off-shore processing of seabed mineral resources", but the rig itself may be deliberately disposed of at sea so long as the operator undertakes precautionary actions, such as removing as much debris and oil waste as possible.²⁴ Likewise, the OPRC requires Contracting Parties to develop plans and to provide equipment to deal with oil spills from ships, offshore and onshore

²⁰ Violeta Radovich "International Legal Regime of Offshore Structures - Environmental Concerns" CMI News Letter No 1 (January/April, 2004) at 13; See also Youna Lyons "Transboundary Pollution from Offshore Oil and Gas Activities in the Seas of Southeast Asia" in Robin Warner and Simon Marsden (eds) *Transboundary Environmental Governance: Inland Marine and Coastal Perspectives* (Ashgate, Farnham, Surrey, England; Burlington, VT, 2012).

²¹ MARPOL 73/78, art. 2(3); Annex XI, Regulation 19.

²² Annex I, Regulation 21.

²³ Annex I, Regulation 26(1).

²⁴ 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1046 UNTS 120 (opened for signature 29 December 1972, entered into force 30 August 1975), art. III(1)(c) and Annex I, art. 11(d).

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installations.²⁵ It obliges states to cooperate in preventing transboundary pollution, and addresses issues such as sharing advice and technical support and facilitating emergency responses, but it also does not require signatories to provide rules for liability and compensation for pollution damage caused by those oil spills.

Another possibly related convention, but one which would not normally be associated with offshore craft, is the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (“Bunkers Convention”).²⁶ That convention was modelled on the CLC and Fund Conventions and was meant to capture oil pollution damage when it resulted from accidents involving non-CLC ships. It applies to “any seagoing vessel and seaborne craft, of any type whatsoever”.²⁷ The inclusion of “seaborne craft” captures a wide variety of offshore craft, whether or not they are self-propelled or engaged in an international voyage, so long as the damage they caused was in the territorial sea or EEZ of contracting states.²⁸ The Bunkers Convention does not provide for a separate compensation fund, but shipowners are entitled to limit their liability according to the international law described below.²⁹ We recall that the Bunkers Convention was only ratified in New Zealand after the *Rena* disaster.

The 1976 Convention on Limitation of Liability for Maritime Claims and its Protocol of 1996 (“LLMC”) was designed to limit shipowners liabilities, but it specifically excludes “floating platforms constructed for the purpose of exploring or exploiting the natural resources of the seabed or the subsoil thereof” or even “ships constructed for, or adapted to, and engaged in, drilling”.³⁰ The LLMC originally would have covered drillships but not floating platforms, and the travaux

²⁵ European Maritime Safety Agency *Action Plan for Response to Marine Pollution from Oil and Gas Installations* (2013) at 12; See also Edgar Gold “International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 Report” (1991) 22 J. Mar. L. & Com. 341.

²⁶ 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage, UKTS No 8 (2005) / [2009] ATS 14 (opened for signature 23 March 2001, entered into force 21 November 2008).

²⁷ 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage, UKTS No 8 (2005) / [2009] ATS 14 (opened for signature 23 March 2001, entered into force 21 November 2008) (2001), art. 1(1); Youna Lyons “Transboundary Pollution from Offshore Oil and Gas Activities in the Seas of Southeast Asia”, above n 20, at 16.

²⁸ Bunkers Convention, art. 2.

²⁹ Bunkers Convention, art. 6.

³⁰ Convention on Limitation of Liability for Maritime Claims 1976: Protocol of 1996 (2004), art. 15(4)-(5).

préparatoire noted the Norwegian delegate's objection to what he saw as an incongruous result.³¹ The delegates considered whether limitation of liability should not be conditional on the tonnage of the craft, as the damage that relatively light drillships and platforms could cause bore no relationship to their actual weight, but ultimately opted to exclude both floating platforms and drillships.

13.2.1 Relevant Regional Conventions

New Zealand is a party to the Noumea Convention, along with Australia (as far as its East Coast and islands to the east up to Macquarie Island are concerned), and 21 other island nations including the Cook Islands, Papua New Guinea, Tonga, Vanuatu and American and Western Samoa.³² The Noumea Convention is typical of many of the regional conventions which followed UNCLOS. It calls upon the parties to “endeavour to conclude bilateral or multilateral agreements, including regional or sub-regional agreements, for the protection, development and management of the marine and coastal environment of the Convention Area.”³³ However, nothing in the Convention or its Protocols “shall affect the sovereign right of States to exploit develop and manage their own natural resources pursuant to their own policies”. The parties are only required to consider their “duty to protect and preserve the environment”, and to ensure that the activities under their “jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of [their] national jurisdiction”, suggesting that states will only be obliged to pay compensation for transboundary damage, but not for the costs of restoring their own environment or the financial and property losses and damages their own citizens might suffer.³⁴ Further, the parties are to “co-operate in the formulation and adoption of appropriate rules and procedures in conformity with international law”, but this has not resulted in the creation of any international offshore petroleum liability and compensation agreement.³⁵

³¹ Comité Maritime International *The Travaux Préparatoires of the LLMC Convention, 1976 and of the Protocol of 1996* (1997) www.comitemaritime.org (accessed 31 March 2014) at [341].

³² Noumea Convention, art. 2(a).

³³ Article 4(1).

³⁴ Article 4(6).

³⁵ Article 20.

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Several other regional conventions do address liability and compensation issues. For example, Denmark, Finland, Norway and Sweden adopted the Nordic Environmental Protection Convention which allows any person affected by environmental nuisances in any contracting state to challenge the permissibility of such activities and to sue for compensation.³⁶ In the Baltic Sea, Article 25 of the 1992 Helsinki Convention asks that Contracting Parties jointly develop rules to determine liability and remedies for damage resulting from acts or omissions.³⁷ The north-east Atlantic's 1992 OSPAR Convention requires Contracting Parties to apply "the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter."³⁸ The North Sea area is covered by the 1983 Bonn Agreement, which obliges the contracting parties to cooperate whenever oil or other harmful substances present a "grave and imminent danger" to their coastlines or other related interests.³⁹ Again, none of these conventions led to any serious attempt to create a liability and fund convention to compensate for environmental damage that might be caused by either seabed mining or by offshore petroleum exploration, extraction and production activities.

13.2.2 The Barcelona Convention and the Offshore Protocol

The 1976 Convention for the Protection of the Mediterranean Sea against Pollution and its 1994 Offshore Protocol ("Barcelona Convention") goes much further than other regional conventions towards creating a proper liability and compensation regime, in that it requires that each signatory:⁴⁰

³⁶ Nordic Environmental Protection Convention on the Protection of the Environment between Denmark, Finland, Norway and Sweden (and Protocol) (opened for signature 19 February 1974, entered into force 5 October 1976) (1974), art.s 2-3.

³⁷ Convention on the Protection of the Marine Environment of the Baltic Sea, 1992 (with annexes) (Helsinki Convention revised in 1992) (opened for signature 9 April 1992, entered into force 17 January 2000) (1994) OJ L 73/20.

³⁸ Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) 2354 UNTS 67; 32 ILM 1069 (1993) (opened for signature 22 September 1992, entered into force 25 March 1998), art. 2.

³⁹ *Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil and other Harmful Substances* (opened for signature 13 September 1983, entered into force 1 September 1989) OJ L 188/9.

⁴⁰ Article 27(2).

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- (a) Shall take all measures necessary to ensure that liability for damage caused by activities is imposed on operators, and they shall be required to pay prompt and adequate compensation;
- (b) Shall take all measures necessary to ensure that operators shall have and maintain insurance cover or other financial security of such type and under such terms as the Contracting Party shall specify in order to ensure compensation for damages caused by activities covered by this Protocol.

The Barcelona Convention and Offshore Protocol continue to be relevant to the UNEP's efforts towards adopting the 1975 Mediterranean Action Plan ("UNEP-MAP").⁴¹ For example, in 2006, the UNEP convened a meeting of technical experts, including renowned Professor Tullio Scovazzi, to discuss a liability and compensation regime feasibility study.⁴² This pointed out that the insurance industry might struggle to provide suitable insurance products, which was why some states had opted for national compensation funds.⁴³ The parties met in 2008 to adopt guidelines intended to take a broader approach to marine pollution damage liability than that taken by the CLC and Fund Conventions, and that would include both traditional and environmental damages.⁴⁴ Interestingly, it drew its definitions of such things as primary, complementary and compensatory remediation and baseline condition from the ELD.⁴⁵ The contracting parties have five years to impose mandatory insurance, and must consider establishing a Mediterranean Compensation Fund.⁴⁶ The compensation fund issue continues to be postponed, but gained new prominence after the OSD stated that the European Union had undertaken the actions necessary to accede to the Barcelona Convention and

⁴¹ Tullio Scovazzi "The Mediterranean Guidelines for the Determination of Environmental Liability and Compensation: The Negotiations for the Instrument and the Question of Damage that Can Be Compensated" (2009) 13 Max Planck Yearbook of United Nations Law 183.

⁴² United Nations Environment Programme *Feasibility Study Covering the Legal Economic, Financial and Social Aspects of a Liability and Compensation Regime in the Mediterranean Sea and its Coastal Area: First meeting of the open-ended working group of Legal and Technical Experts to propose Appropriate Rules and Procedures for the Determination of Liability and Compensation for Damage Resulting from Pollution of the Marine Environment in the Mediterranean Sea Area* (UNEP(DEPI)/MED WG285/4 of 15 February 2006) <www.unep.org>.

⁴³ At 67.

⁴⁴ Part D, at [8].

⁴⁵ Scovazzi, above n 41, at 206; UNEP *Guidelines for the Determination of Liability and Compensation resulting from Pollution of the Marine Environment in the Mediterranean Sea Area*, Recital.

⁴⁶ UNEP *Guidelines for the Determination of Liability and Compensation for Damage resulting from Pollution of the Marine Environment in the Mediterranean Sea Area*, arts. K.28 and L.29.

Offshore Protocol.⁴⁷ Affairs in European politics have been moving very quickly in the years since then, but if the EU Member States do take their commitments to the health of the Mediterranean seriously, then one result could be the development of a Mediterranean mutual indemnity association along the lines of the United Kingdom's OPOL agreement.⁴⁸

13.2.3 The Rio and Canadian Draft Conventions on Offshore Mobile Craft

There have been a handful of attempts to develop specific offshore petroleum liability conventions along the lines of the CLC and Fund Convention. For example, the Comité Maritime International's ("CMI") 1977 Rio Draft International Convention on Offshore Mobile Craft was an early attempt to convince the IMO to develop a more targeted international offshore mining industry liability regime.⁴⁹ Commonly known as the "Rio Draft", this defines a craft as:⁵⁰

... any marine structure of whatever nature not permanently fixed into the seabed which a) is capable of moving or being moved whilst floating in or on water, whether or not attached to the seabed during operations, and b) is used or intended for use in the exploration, exploitation, processing, transport or storage of the mineral resources of the seabed or its subsoil or in ancillary activities.

A second Draft Convention on Offshore Mobile Craft 1994 addressed the Rio Draft's deficiencies, but met fierce opposition from the International Association of Drilling Contractors and the United States Maritime Law Association.⁵¹ Even so, a CMI working group continued working with the Canadian Maritime Law Association, and was able to develop the Draft Convention on Offshore Units, Artificial Islands and Related Structures Used in the Exploration for and

⁴⁷ Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66, Recital 51; Council Decision of 17 December 2012 on the accession of the European Union to the Protocol for the Protection of the Mediterranean Sea against pollution resulting from exploration and exploitation of the continental shelf and the seabed and its subsoil (2013/5/EU) OJ L 4/13.

⁴⁸ De Smedt and others, *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (Maastricht European Institute for Transnational Legal Research, Maastricht University, the Netherlands, 2013) <www.ec.europa.eu> (accessed 6th June, 2015), at 386.

⁴⁹ See Jacqueline Allen "A Global Oil Stain - Cleaning Up International Conventions for Liability and Compensation for Oil Exploration/Production" (2011) 25 A & NZ Mar LJ 90; Michael White "Offshore Craft and Structures: A Proposed International Convention" (1999) 18 AMPLJ.

⁵⁰ Draft International Convention on Offshore Mobile Craft (19 December 1977) LEG/34/6(b) (not in force).

⁵¹ See Comité Maritime International *CMI Yearbook 1994*, "Final Report of the Chairman of the International Sub-Committee" (CMI, Sydney II, Documents of the Conference, 1994) at 168.

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Exploitation of Petroleum and Seabed Mineral Resources 2001 (“Canadian Draft”).⁵²

The Canadian Draft is a possible template for a future offshore liability convention, and it contains features that could now be considered standard.⁵³ The owner would be strictly liable for all “pollution damage caused by or arising from the emission or discharge of pollutants from Offshore Units, Artificial Islands or Related Appurtenances”, while the licensee would be responsible for eruptions from the seabed.⁵⁴ “Offshore Unit” refers to MODUs, while “Artificial Islands” are any fixed structures, excluding pipelines and installations made up of dredged or natural filled materials.⁵⁵ Like the CLC Convention, owners and licensees were to be entitled to limit their liability, with the limit to be calculated by multiplying the mass tonnage of the rig by a to-be-determined number of units of account.

The Canadian Draft did not go so far as to recommend the institution of a compensation fund, but it did require Coastal State Parties to ensure “that Owners have administrative and financial resources appropriate to the effective implementation of standards and activities” up to the limits of liability.⁵⁶ Financial security arrangements could include attaching liens to the offshore unit and its related appurtenances, and would have to cover claims for:⁵⁷

- (a) Loss of life or personal injury to Offshore Unit Occupants or arising from operation of Offshore Units [and Related Appurtenances];
- (b) claims of Offshore Unit Workers for wages and social benefits;
- (c) salvage;
- (d) tortious or delictual physical loss, in direct connection with the operation or navigation of the Offshore Unit.

⁵² Draft Convention on Offshore Units, Artificial Islands and Related Structures Used in the Exploration for and Exploitation of Petroleum and Seabed Mineral Resources 2001 (not in force).

⁵³ Allen, “A Global Oil Stain” above n 49, at 91; Wylie Spicer “International Regulation of the Offshore Oil Business in the Arctic: The Case For and Against” (27 March 2015) Comité Maritime International: Working Group on Legal Issues Arising in the Arctic and Antarctic <www.comitemaritime.org>.

⁵⁴ The Canadian Draft, art. 11.4.

⁵⁵ Article 1.

⁵⁶ Article VIII (8.14) and (8.6)(iv).

⁵⁷ Draft Convention on Offshore Units, art. V.

Liens were to be given priority over creditors' remedies, such as registered mortgages or hypothecs.⁵⁸ An accident which destroyed the unit would render such remedies worthless, however, and there was a six year time limit on compensation claims.⁵⁹

13.2.4 CLEE and OPOL

This thesis has frequently referenced the Offshore Pollution Liability Agreement ("OPOL"), but it has not explained how the agreement came to be. The OPOL agreement only came about because of the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources ("CLEE").⁶⁰ CLEE was intended to create a strict liability system to hold the owner and licensees operating any offshore installation liable for the costs of pollution damage and preventive measures resulting from accidents in the contracting parties' territory, internal waters and territorial seas. Like other liability regimes, CLEE would have limited the owners and licensees' liability, and provided Act of God, Act of War and third-party defences. Insurance was mandatory, but the minimum financial security was set at a figure less than the limit of liability and there was no complementary compensation fund. CLEE was the first serious effort to draft an international offshore petroleum industry pollution damage liability convention. However, it would have been restricted to the nations bordering the North Sea, the Baltic and the North Atlantic, and, although it even if it ultimately never entered into force, it did prompt a number of those states to join OPOL.⁶¹

⁵⁸ A hypothec is "a creditor's right established over a debtor's property that continues in the debtor's possession"; William R Trumble, Angus Stevenson and Lesley Brown *Shorter Oxford English Dictionary on Historical Principles* (5th ed, Oxford University Press, Oxford ; New York, 2002) at 1304.

⁵⁹ Draft Convention on Offshore Units, art. XI (11.8).

⁶⁰ *Offshore Pollution Liability Agreement ("OPOL")* (effective as of 1 April 2015) www.opol.org.uk; Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977 16 ILM 1451 (opened for signature 1 May 1977, not in force).

⁶¹ See Allen, "A Global Oil Stain", above n 49, at 94; Wylie Spicer "International Regulation of the Offshore Oil Business in the Arctic: The Case For and Against", above n 53, at 4; Julien Rochette and others *Seeing beyond the horizon for deepwater oil and gas: strengthening the international regulation of offshore exploration and exploitation* (Institut du développement durable et des relations internationales, 2014) at 22; Scovazzi, "Maritime Accidents", above n 16, at 297; Radovich, "International Legal Regime of Offshore Structures" above n 20; Nicholas Gaskell "Compensation for Offshore Pollution: Ships and Platforms" in Malcolm A Clarke and University

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OPOL is a private agreement between 16 offshore oil and gas operators within the jurisdiction of any of the “Designated States”; the United Kingdom of Great Britain and Northern Ireland, Denmark, Germany, France, Republic of Ireland, Netherlands, Norway, Isles of Man, Faroe Islands and Greenland.⁶² The operators agree to be held strictly liable to compensate and reimburse “any Person sustaining Pollution Damage and any Public Authority which occurs costs for taking Remedial Measures as a result of a Discharge of Oil” from an offshore facility within its jurisdiction.⁶³ It is not a compensation fund per se, rather the parties’ mutual indemnity commitments are activated if any member is unable to fulfil its financial obligations. Since the *Deepwater Horizon*, the compensation level was raised to \$250 million USD.⁶⁴ However, there have very rarely ever been claims against the agreement, and this may account for its popularity and longevity.⁶⁵

OPOL provides that the operator of the offshore facility or facilities is strictly liable for the costs of pollution damage and for remedial measures that either they or a “Public Authority” have taken, up to the maximum of \$125 million USD per category, or a total of \$250 million USD per incident.⁶⁶ Pollution damage means “direct loss or damage (other than loss or damage to any Offshore Facility involved) by contamination which results from a Discharge of Oil.”⁶⁷ “Remedial measures” mean the actions that are taken to “prevent, mitigate or eliminate pollution damage, including efforts to “remove or neutralize the Oil involved in such discharge, excluding however, well control measures and measures taken to protect, repair or replace any such Offshore Facility.”⁶⁸

of Southampton (eds) *Maritime Law Evolving: Thirty Years at Southampton* (Hart Publishing, Oxford, 2013) at 81.

⁶² OPOL, Preamble.

⁶³ OPOL, Preamble.

⁶⁴ The Offshore Pollution Liability Association Limited *Guidelines for Claimants* (accessed 31 March 2015) <www.opol.org.uk> at 1; Offshore Pollution Liability Association Ltd (OPOL) and United Kingdom Offshore Oil and Gas Industry Association Limited (Oil and Gas UK) *Oil Spill Cost Study - OPOL Financial Limits* (Oil and Gas UK 2012) at 5.

⁶⁵ BIO by Deloitte *Civil Liability, Financial Security and Compensation Claims for Offshore Oil and Gas Activities in the European Economic Area* (EU Commission - DG Energy, 2014) at 159 states that there have never been any claims against OPOL; However, Maria Gavouneli reports that there were two claims as of 1992, with one being for only £150, See Maria Gavouneli *Pollution from Offshore Installations* (Graham & Trotman/M Nijhoff, London ; Boston, 1995) at 119.

⁶⁶ OPOL, cl IV.

⁶⁷ OPOL, cl 1(13).

⁶⁸ Clause 1(15).

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OPOL's guidelines state that admissible claims must be "reasonable, quantifiable and justifiable" and must fall into the categories of:⁶⁹

- Clean up operations on shore or at sea.
- Property damage
- Disposal costs of collected material
- Other losses which must be quantifiable and which must result from the contamination itself.

This indicates that claims that were unreasonable, unquantifiable or unjustifiable would not be compensated, though it is not clear how that determination would be made. Similar to the CLC and Fund Conventions, OPOL contains defences if the incident was caused by an act of war or natural phenomenon, or by a third party, if it was the result of the "negligence or wrongful act of any Government or other authority", or from compliance with permitting conditions, or if it was wholly or partially caused by a claimant's act or omission with the intent to cause damage.⁷⁰

If the responsible operator "fails to satisfy its obligations to Claimants", then the remaining parties agree to contribute jointly until the damages are paid for.⁷¹ Each is required to:⁷²

... establish and maintain its financial responsibility to fulfil its obligations under Clause IV... [to] become a member of the Association... [and to] make payment to the Association of all dues, assessments and other sums properly payable to the Association to enable it to fulfil its purposes as described herein and in its Memorandum and Articles of Association... [and to] make payment to the Association of the Party's share of any such sum as is referred to in Clause III, that share being determined in accordance with its Articles of Association...

Each party must, on request, provide to the government of any of the Designated States evidence that it is "complying with the Rules with respect to financial responsibility".⁷³ This may be in the form of insurance, guarantee or self-insurance,

⁶⁹ The Offshore Pollution Liability Association Limited, *Guidelines for Claimants*, above n 64, at 2.

⁷⁰ OPOL, cl. IV(B).

⁷¹ Clause III(2).

⁷² Clause II(c); Articles of Association of the Offshore Pollution Liability Association Limited (4 September 2014) <www.opol.org.uk> (accessed 31 March 2015) Appendix, s 3.

⁷³ OPOL, cl. III (1).

but OPOL must be satisfied as to the insurer's or guarantor's credit or financial strength.⁷⁴ To qualify as a self-insurer the operator must demonstrate its financial strength by having qualified for one or more financial strength ratings, for example, 'A-' or higher from Standard & Poors.⁷⁵

Any disputes arising out of the contract may be settled under the Rules of Arbitration of the International Chamber of Commerce at London, or by one or more arbitrators appointed in accordance with that body's rules.⁷⁶ Disputes or claims are to be governed and construed in accordance with English law.⁷⁷ Arbitration has the advantage of leading to speedier and cheaper resolution than protracted court actions witnessed in the case of the *Amoco Cadiz* and *Exxon Valdez*; 18 and 21 years respectively.⁷⁸ Awards are final, binding and confidential, although OPOL preserves claimants' rights to seek redress for losses beyond the maximum recoverable or outside of the scope of the agreement.⁷⁹ There is a question mark over whether claimants may make use of the arbitration clause, however, as the agreement is a private contract between offshore operators and therefore is subject to rules on privity.⁸⁰ The lack of third party enforcement mechanism mean that members will probably only recognise the most tradition of damages claims, and remedial measures costs incurred by public authorities.⁸¹

OPOL may be a voluntary agreement, but the Petroleum Act 1998 (UK) provided operators had to be members of OPOL to obtain consent to explore for or produce on oil and gas on the United Kingdom's continental shelf.⁸² Specifically, the

⁷⁴ Rules of the Offshore Pollution Liability Association Limited (effective as of 1 April 2015) (accessed 31 March 2015), Insurance forms FR-1, FR-2 and FR-3.

⁷⁵ Qualification as a Self-Insurer (Form FR-4).

⁷⁶ OPOL, cl. IX - Arbitration.

⁷⁷ Clause XII - Law Governing.

⁷⁸ Rochette and others, *Seeing beyond the horizon for deepwater oil and gas*, above n 61, at 24.

⁷⁹ The Offshore Pollution Liability Association Limited, *Guidelines for Claimants*, above n 64, at 1.

⁸⁰ At 1; Greg Gordon "Oil, water and law don't mix: environmental liability for offshore oil and gas operations in the UK; Part 2: Regulatory law, the Environmental Liability Directive and OPOL" (2013) 25 ELM 121 at 128–129.

⁸¹ Rochette and others *Seeing beyond the horizon for deepwater oil and gas: strengthening the international regulation of offshore exploration and exploitation*, above n 61, at 23; House of Commons Energy and Climate Change Committee *UK Deepwater Drilling - Implications of the Gulf of Mexico Oil Spill* (The Stationery Office Ltd, London, 2011) at 25.

⁸² Petroleum Act 1998 Act (UK), s 3; Shane Bosma "The Regulation of Marine Pollution Arising from Offshore Oil and Gas Facilities – An Evaluation of Current Regulatory Regimes and the Responsibility of States to Implement a New Liability Regime" (2012) 26 A. & NZ Mar. L.J. at 96; Note, the DECC has been closed and its functions transferred to a new Department for Business,

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Petroleum (Production) (Seaward Areas) Regulations 1988 (UK) require that the Licensee:⁸³

... comply with any reasonable instructions from time to time given by the Minister with a view to ensuring that funds are available to discharge any liability for damage attributable to the release or escape of petroleum in the course of activities connected with the exercise of rights granted by this licence...

The DECC guidelines specified that, in order to ensure that funds are available:⁸⁴

Operators may be required to provide proof of OPOL membership, and that it covers the proposed activity, and to provide confirmation that their insurance indemnity provision includes the following:

- Operations to stop or control the release of hydrocarbons in the event of a well blow-out, such as the deployment of a capping device and the drilling of a relief well;
- Clean-up costs associated with any spill, including a worst-case well blow-out; and
- Remediation of pollution damage, including liability to third parties.

OPOL has been successfully integrated into the United Kingdom's offshore liability regime, which suggests that similar agreements could perform the same function elsewhere. The United Kingdom's House of Commons Energy and Climate Change Committee has expressed concern at OPOL's adequacy and scope, however, saying that:⁸⁵

Given the high costs of the incident in the Gulf of Mexico, we believe that the ... limit of \$250 million is insufficient. We are concerned that the OPOL provisions only cover direct damage and also that the precise definition of 'direct damage' is unclear. While membership of OPOL remains voluntary – despite it being a prerequisite for a licence – its voluntary nature weakens its

Energy & Industrial Strategy as of July 2016; Ian Johnston "Climate change department closed by Theresa May in 'plain stupid' and 'deeply worrying' move" *Independent* (16 July 2016) <www.independent.co.uk>..

⁸³ The Petroleum (Production) (Seaward Areas) Regulations 1988 (UK), cl. 23(9).

⁸⁴ Department of Energy and Climate Change *Clarification of DECC guidance relating to environmental aspects of drilling, well intervention and well abandonment operations* (last updated 17 March 2015) <www.gov.uk/oil-and-gas-offshore-environmental-legislation> at 22.

⁸⁵ House of Commons Energy and Climate Change Committee, *UK Deepwater Drilling - Implications of the Gulf of Mexico Oil Spill* at 26.

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legality and the control and deployment of its funds. We believe this lack of legal control will allow polluters to claim that damages to biodiversity and ecosystems are indirect, and therefore do not qualify for compensation.

The requirement that losses be “direct” may exclude claims for pure economic losses or damage to the environment itself, but measures which will restore fisheries or tourism will also benefit the environment. One clear deficiency is that OPOL will not pay for “well control measures and measures taken to protect, repair or replace any such Offshore Facility.”⁸⁶ The measures taken to control the well might include sub-surface operations to deploy a capping stacker, or hiring a second rig to drill a relief well which could take many months and prove to be the most expensive part of the preventive operation. That exclusion is concerning, but generally speaking OPOL’s compensation rules are no worse than the best available. Again, there has never been a major claim against OPOL, so it remains to be seen how its provisions would be tested in practice.

Another opinion about OPOL came from Oil & Gas UK’s recently formed joint industry, regulator and trade union taskforce, the UK Oil Spill Prevention and Response Advisory Group (“OSPRAG”).⁸⁷ OSPRAG’s Indemnity and Insurance Review Group (“Insurance Group”) focussed on the “potential control, remediation and compensation costs associated with a large oil spill in the UKCS, to determine how these are provided for and whether the provisions the UK has in place require improving.”⁸⁸ The Insurance Group said that OPOL “is neither a fund, nor is it a limitation of liability regime”, but it does provide “one element of the overall financial responsibility that operators may be required to provide to regulators”.⁸⁹ If the main criticism of OPOL then is that it fails to pay for all damages which could result from an offshore oil accident, then the answer is to require operators to provide additional financial security.

⁸⁶ OPOL, cl 1(15).

⁸⁷ Alex Wawryk “The Regulation of Oil Spills from Offshore Installations” in Kim Talus (ed) *Research Handbook on International Energy Law* (Edward Elgar, Cheltenham, UK, 2014) at 570–574; UK Oil Spill Prevention and Response Advisory Group *Strengthening UK Prevention and Response: Final Report* (UK Oil Spill Prevention and Response Advisory Group, 2011).

⁸⁸ UK Oil Spill Prevention and Response Advisory Group, at 32.

⁸⁹ At 32.

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None of this explicitly recognises how OPOL might relate to operators' liabilities under the ELD since the EU's expansion of that liability regime to offshore petroleum activities via the OSD. Indeed, the DECC's 2015 document makes no mention of the EU directives. Given that OPOL predates the ELD by several decades, it is not surprising that its admissible categories do not exactly match the ELD's three categories of environmental damage. However, we recall that the effect of the ELD is only to direct that Member States encourage the development of financial security mechanisms. Even with the advent of the OSD there is no mandatory insurance regulation. It follows that the United Kingdom's reliance upon OPOL cannot be faulted for failing to account for the ELD. No Member State is required to do so.

The recent decision by the British public to exit the EU may stall any further developments in the near to medium future. EU based operators seeking consent to explore for oil and gas on the United Kingdom's continental shelf will still be required to join OPOL, but it remains to be seen whether the United Kingdom's ELD and OSD transposing legislation will survive in their current form.

13.3 An Offshore Petroleum Industry Liability and Fund Convention?

Both the *Deepwater Horizon* and the *Montara* incidents have highlighted the absence of an international offshore oil pollution regime, prompting calls for reforms of industry safety and environmental regulation, and for the establishment of some form of an international liability and compensation regime.⁹⁰ This too has led to a debate about why there is yet now such regime in place. Agyebeng has explained that the global community's failure to agree on a comprehensive international compensation and liability instrument may be due to the relative rarity of oil rig blowouts.⁹¹ Ships regularly pass through international shipping lanes and

⁹⁰ Steven Rares "An International Convention on Off-shore Hydrocarbon Leaks?" (2012) 26 A & NZ Mar LJ 10; Allen, "A Global Oil Stain", above n 49; Spicer "International Regulation of the Offshore Oil Business in the Arctic", above n 53; Marissa Smith "The *Deepwater Horizon* Disaster: An examination of the Spill's Impact on the Gap in International Regulation of Oil Pollution from Fixed Platforms" (2011) 25 Emory Int'l L. Rev. 1477.

⁹¹ Kissi Agyebeng "Disappearing Acts – Toward a Global Civil Liability Regime for Pollution Damage Resulting from Offshore Oil and Gas Exploration" (2006) 11 Cornell Law School Graduate Student Papers.

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multiple states' marine and territorial waters, which is why it is necessary to take an international approach to shipping pollution damage liability laws. Offshore operations, on the other hand, are fixed in place and fall naturally within an individual state's jurisdiction.

Steven Rares has argued that the continuing demand for hydrocarbons will push further high-risk exploration of the deep seabed, and that it would be sensible to establish an international offshore industry pollution damage compensation fund.⁹² He points out that, according to the Seabed Disputes Chamber, states could be held liable by other states for failing to prevent transboundary pollution damage.⁹³ Rares proposes that a fund could be established by requiring "rig controllers" to pay a levy based on the volume of oil produced.⁹⁴ However, such a fund would need to have the cooperation of both the United States and the EU and he concedes that consensus could be impossible.

Shane Bosma and Mikhail Kashubsky both make the same point that, despite the emphasis on international cooperation in both UNCLOS and the OPRC, there is a lack of global consensus on the liability issue.⁹⁵ This means that operators are only subject to national or at most regional liability laws, their obligations are allocated according to standardized joint operating agreements, and their financial security partially provided by P & I Clubs and partially by private insurance policies. Like Rares, Bosma concludes that states themselves could be held liable for oil pollution damage claims, both from their own citizens and from transboundary pollution claims by other states, and that it would be in their best interests to throw their support behind an international offshore oil pollution damage treaty.⁹⁶ Meanwhile, Wylie Spicer has said that the lack of consensus is because, unlike the shipping industry, offshore oil and gas industry associations, coastal states, international

⁹² Rares, at 10.

⁹³ Seabed Disputes Chamber of the International Tribunal for the Law of the Sea *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), Case No 17 (2011).

⁹⁴ Rares, at 22.

⁹⁵ Bosma, "The Regulation of Marine Pollution Arising from Offshore Oil and Gas Facilities", above n 81, at 91; Mikhail Kashubsky "Marine Pollution from the Offshore Oil and Gas Industry: Review of Major Conventions and Russian Law (Part I)" (2006) 151 *Maritime Studies* 1.

⁹⁶ Bosma, at 109; *Trail Smelter Arbitral Tribunal*, 33 *Am J Int'l L* 182 (1941).

organizations and the United Nations have been unable to create a “seamless web” of “marindustrial” laws.⁹⁷

Many have come to believe that the CLC and Fund Conventions should be expanded to include the offshore oil and gas industry. As described above, the CMI has been seeking to craft a suitable regulatory regime which would include a liability and compensation component, with little result beyond a handful of draft conventions. As long ago as 1998, Richard Shaw, Comité Maritime International’s representative to the IMO and the IOPC Fund, called on the IMO to address omissions in national and regional liability regimes relating to offshore craft.⁹⁸ The latest proposal came about after the *Montara* platform exploded into flames on the 21st of August 2009, spilling oil and gas condensate into the Timor Sea for 74 days.⁹⁹ Indonesia was most directly affected,⁹⁹ and it requested that the IMO’s Strategic Direction 7.2 be amended to include:¹⁰⁰

... reducing and eliminating any adverse impact by shipping or by offshore oil exploration and exploitation activities on the environment by developing effective measures for mitigating and responding to the impact on the environment caused by shipping incidents and operational pollution from ships and liability and compensation issues connected with transboundary pollution damage resulting from offshore oil exploration and exploitation activities.

The Indonesians were concerned that offshore operations were only subject to national or regional regulatory arrangements, and that the insurance requirements varied widely, and were often insufficient to cover the costs of a major accident.¹⁰¹

⁹⁷ Wylie Spicer “International Regulation of the Offshore Oil Business in the Arctic”, above n 53, at 2.

⁹⁸ Richard Shaw “Offshore Craft and Structures: Report to the Legal Committee of the International Maritime Organization from the International Subcommittee of the Comité Maritime International” in Comité Maritime International (ed) *CMI Yearbook 1998* (Comité Maritime International, Antwerp, Belgium, 1998) 145 at 146.

⁹⁹ Montara Commission of Inquiry *Report of the Montara Commission of Inquiry* (Commonwealth of Australia, 2010).

¹⁰⁰ IMO Legal Committee “Any Other Business: Information relating to liability and compensation for oil pollution damage resulting from offshore oil exploration and exploitation - Note by Secretariat” (18 February 2011) LEG 98/13 at [2]; de Smedt and others, *Civil Liability and Financial Security for Offshore Oil and Gas Activities*, above n 48, at 73.

¹⁰¹ International Maritime Organization *On-going Discussion at IMO on Matters Concerning Liability and Compensation for Oil Pollution Damage Resulting from Offshore Exploration and Exploitation Activities* (5 December 2013) REMPEC/WG34/INF4 at 3.

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Their view was that the IMO was the body with the best mandate to give serious consideration to the establishment of an offshore petroleum industry civil liability and fund convention.

The proposal was opposed by Brazil amongst others, and the IMO's Marine Environment Protection Committee elected not to expand its work programme, but left the topic open for future discussion.¹⁰² The Secretariat justified the decision saying that a number of international and regional instruments, such as UNCLOS, CLEE, OPOL, OPRC and MARPOL 73/78, were already available to deal with safety regulation, liability and compensation issues.¹⁰³ This claim was curious given that UNCLOS has no enforceable liability and compensation mechanisms, CLEE is not in force, OPOL is limited to a handful of Designated States bordering the North Sea, the Baltic and the North Atlantic, and OPRC and MARPOL 73/78 focus on planning to prevent operational and accidental discharges. The Secretariat referred to the EU's ELD and OSD, but it conceded that there was no single international instrument that could cope with the issue and that any "[enhanced] licensing of new drilling activities needs to be backed up by an unequivocal liability regime, including adequate financial security arrangements to cover major incidents."¹⁰⁴

In May 2014, the IMO reviewed the issue but only to confirm its earlier findings.¹⁰⁵ The Committee was happy to "analyse further the liability and compensation issues connected with transboundary pollution damage resulting from offshore oil and exploration activities", with the aim of providing guidance to "States interested in pursuing bilateral or regional arrangements", but would not revise its overall strategic focus on shipping accidents.¹⁰⁶ Indonesia and Denmark subsequently

¹⁰² MEDEXPOL 2013, Workshop on the Regional Response Capacity and Coordination to Major Oil Spill in the Mediterranean Sea "On-Going Discussion at IMO on Matters Concerning Liability and Compensation for Oil Pollution Damage Resulting from Offshore Exploration and Exploitation Activities" (5 December 2013) REMPEC/WG34/INF4 at 1.

¹⁰³ IMO Legal Committee, "Any Other Business", above n 100.

¹⁰⁴ At [21].

¹⁰⁵ IMO Legal Committee "Report of the Legal Committee on the Work of its One Hundred and First Session" (13 May 2014) LEG 101/12; See also International Maritime Organization *On-going Discussion at IMO on Matters Concerning Liability and Compensation for Oil Pollution Damage Resulting from Offshore Exploration and Exploitation Activities* (5 December 2013) REMPEC/WG34/INF4.

¹⁰⁶ IMO Legal Committee "Report of the Legal Committee", [11.1].

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submitted a report on the Second International Conference on Liability and Compensation Regime for Transboundary Oil Damage Resulting from Offshore Exploration Activities held at Bali, Indonesia in 2012, to provide guidance for establishing bilateral or regional arrangements.¹⁰⁷ No further action has been taken on the issue at the time of writing.

The CMI observer did draw the Legal Committee's attention to a February 2014 study by the Institute for Sustainable Development and International Relations ("IDDR") entitled "Seeing beyond the horizon for deepwater oil and gas: strengthening the international regulation of offshore exploration and exploitation."¹⁰⁸ The IDDR report points out that there is a "never-ending rush to offshore oil and gas" and that January 2013 saw a new world record drilling depth of 3,165 m off the coast of India.¹⁰⁹ After surveying the various attempts to institute an international offshore convention, the report concludes that "developing regional agreements appears to be one way to move forward and fill the regulatory gaps" even if differences in scope, implementation and a lack of coordination results in a highly fragmented approach.¹¹⁰

The Secretariat also mentioned an announcement by the President of the Russian Federation, Dmitry Medvedev, at the Toronto G20 Summit in June 2010, to establish the G20 Global Marine Environment Protection initiative ("GMEP") to prevent and minimise offshore accidents.¹¹¹ The Russian initiative would create a compensation fund with payments in proportion to the profits earned by international oil companies, and would include a mandatory insurance programme. Its early ambitious intent has waned, and GMEP's mission statement now merely involves "Sharing Best Practices to Protect the Marine Environment, to Prevent

¹⁰⁷ International Maritime Organization Indonesia *Any Other Business: Guidance for Bilateral/Regional Arrangement or Agreement on Liability and Compensation Issues Connected with Transboundary Oil Pollution Damage Resulting From Offshore Exploration and Exploitation Activities* (25 March 2013) LEG 100/13/2.

¹⁰⁸ IMO Legal Committee "Report of the Legal Committee", above n 105, at [11.8]; Rochette and others, *Seeing beyond the horizon for deepwater oil and gas*, above n 61, at 5.

¹⁰⁹ At 5.

¹¹⁰ At 30.

¹¹¹ IMO Legal Committee "Any Other Business", above n 100, at [22]; See also Rochette and others, *Seeing beyond the horizon for deepwater oil and gas*, above n 61, at 10.

Accidents related to Offshore Oil and Gas Exploration and Development, as well as Marine Transportation, and to Deal with Their Consequences.”¹¹²

Is the IMO correct in assuming that the only way forward is a regional approach to liability and compensation for offshore oil pollution damage claims? By looking at one of the most substantive objections to the international option, it may be possible to assess and refute the major arguments against the idea of an international offshore petroleum industry liability and fund convention.

Bariş Soyer argues that the proposal to expand the 1992 CLC and Fund Conventions from shipping to include offshore activities faces a number of political and practical difficulties, and that it would be more sensible to develop a global regime from scratch.¹¹³ Like the IDDR report, he suggests that a more sensible solution would be to encourage the development of a number of regional OPOL style mutual indemnity arrangements.¹¹⁴ This proposition has merit, and would offer an opportunity for states most concerned with offshore industry pollution damage to negotiate with their neighbours and not to be held back by the reluctance of far-flung neighbours.

Soyer states that the first problem is in deciding how contributions would be made to such a fund. The 1992 Fund Convention bases contributions upon the quantity of oil each participating state has imported by sea, which clearly ties it to the objectives that the conventions have, of sharing liability for oil pollution damage between the shipowners and the cargo owners. An offshore compensation fund would have to find a way to share contributions between a multiplicity of operators, licence holders, third party contractors, as well as the coastal states that sponsor and benefit most directly from their activities. Secondly, the compulsory insurance requirement would be difficult to satisfy given that the P & I Clubs that back the CLC Convention do not provide insurance cover for many aspects of offshore activities, such as pollution damage from drilling, blowouts, connected infrastructure, or

¹¹² G20 Global Marine Environment Protection (GMEP) Initiative <www.g20gmp.org> (accessed 29 March 2015).

¹¹³ Bariş Soyer “Compensation for Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources” in Bariş Soyer and Andrew Tettenborn (eds) *Pollution at Sea: Law and Liability* (Informa, London, 2012) 59 at 72–79.

¹¹⁴ At 76–79.

resulting clean-up costs.¹¹⁵ The greatest danger, he says, is that any proposed expansion of the CLC and Fund Convention regime could lead to substantial cost increases, and that might encourage many states to withdraw from the scheme altogether.¹¹⁶

Soyer's objections may be countered. First, there is no convincing reason why offshore installation owners and operators could not stand in the shoes of shipowners and masters, with pre-set limited liability and an obligation to maintain insurance up to that limit. The Fund's revenues could continue to be provided by oil importing countries as before, but instead of basing funding on the quantities of oil imported, contributions could be made in proportion to the amount of oil which is sourced from offshore activities.

Second, New Zealand's mandatory insurance regime shows that it is possible to obtain insurance to cover the costs of well control, clean-up and property damage, although it may be difficult to source insurance for third party claims. Insurance markets could respond to demand for an expansion of the third-party liability cover and would create appropriate products. Alternatively, third-party claims could be covered by a parent company's general liability insurance, or by properly vetted parent company guarantees. Additional financial security could be provided by obliging the owners and operators of offshore installations to join regional OPOL style mutual indemnity associations, which would have the advantage that funding would only have to be found in the event of an actual oil polluting incident. Furthermore, if offshore installation operators knew that they faced mutual liability there would be more incentive to monitor and report other operators whose standards of operation fell below best practice oilfield standards. Shipowners already manage their financial security obligations through membership with Protection and Indemnity Clubs, and the same system could be applied. Mutual indemnity associations and insurance providers could then help provide a regulatory role, preventing the moral hazard and regulatory capture issues which increase the risks of accidents occurring and which can lead to insurance crises.

¹¹⁵ At 73.

¹¹⁶ At 74.

Soyer's third objection, that an offshore liability and fund convention regime would substantially increase liability costs, is on the face of it, a serious challenge to any future offshore petroleum liability and fund convention. Nicholas Gaskell has also observed that the costs that could be caused by incidents like the *Deepwater Horizon* could be immense, outweighing the capacities of even the CLC and Fund Conventions model, and that there could be instances where the losses may just have to lie where they fall.¹¹⁷ He argues that the IMO's decision has effectively blocked the prospects for the discussion of any multilateral offshore transboundary pollution damage convention, but that the IMO will assist states wishing to create regional or bilateral schemes.¹¹⁸ Again, he points out that it would be very difficult to guarantee the appropriate insurance arrangements, particularly as there is no offshore group equivalent to the International Group of P&I Clubs. He cautions against smaller nations attempting to replicate the United States' system of unlimited liability for oil pollution damage, however, as it would be extremely difficult for smaller players to forge the special insurance arrangements required to enforce such judgments.

What many observers fail to have noticed about the *Deepwater Horizon*, however, is that most of the \$40bn liability bill was due to the punitive penalties in United States' federal law. Under the Clean Water Act, if the violator acts with due diligence then they are fined \$1,100 per barrel spilled, and \$37,500 per day the spill continues.¹¹⁹ If the violator acts with gross negligence or wilful misconduct, however, then the fines rise to \$4,300 USD per barrel and \$140,000 per day. In addition, BP and its partners were subject to claims for damage to natural resources under the Oil Pollution Act of 1990, loss of life and other traditional damage claims for financial losses suffered by property owners and local businesses, all of which contributed to the unprecedented total cost. Soyer cites the *Deepwater Horizon*

¹¹⁷ Nicholas Gaskell "Compensation for Offshore Pollution: Ships and Platforms" in Malcolm A Clarke and University of Southampton (eds) *Maritime Law Evolving: Thirty Years at Southampton* (Hart Publishing, Oxford, 2013) 63 at 69.

¹¹⁸ At 85.

¹¹⁹ Clean Water Act of 1972, (2006) 33 U.S.C. § 311(b)(6) and (7), §1321(b)(6) and (7) ; See Alexandra Wawryk and Katelijn Van Hende "Gross Negligence under the US Clean Water Act and General Maritime Law: In re: Oil Spill by the Oil Rig 'Deepwater Horizon' in the Gulf of Mexico, on April 20, 2010, (MDL 2179) 'Findings of Fact and Conclusions of Law Phase One Trial', Rec Doc 13,355, --- F Supp 2d --, 2014 WL 4375933 (ED La, 4 September 2014)" (2014) 28 ANZ Mar LJ at 122..

incident only as evidence that the major oil companies will do the right thing in these circumstances, and to argue that further regulation is unnecessary.¹²⁰ However, BP only voluntarily established a \$20bn USD fund knowing that it could be involved in decades of protracted litigation, and that an early announcement of contrition would offset and mitigate later claims. Its purpose was to avoid punishment. This was legal manoeuvre, not philanthropy.

If the rules of the 1992 CLC and Fund Convention regime had been applied, then the outcome would have been quite different, and, in most cases, far less expensive. As an example of what not to do, the most recent case of the *Prestige* saw the Spanish Supreme Court levy the maximum compensation pay-out against shipowner, insurer and IOPC Fund, but that outcome could have been quite different if the captain, shipowner and insurer had behaved more responsibly.¹²¹ The master was found to have been criminally negligent and lost the protection afforded by the CLC Convention's channelling provisions. Mare Shipping lost the owner's limitation right, first, because it was vicariously liable for the master's decisions, and second, because it played an active role in knowingly maintaining and operating a defective vessel. As one employee testified, the Mare Shipping "knew the state of the ship and that it had gone to St Petersburg to die."¹²² The London P&I Club attempted to obstruct the proceedings by failing to appear before the court, evidently believing that the arbitration clause in its \$1 billion USD insurance contract excluded the jurisdiction of the Spanish court. In failing to appear, it lost its opportunity to raise any defence.¹²³ As for the IOPC Fund, none of the exceptions to liability applied, and it was found liable to pay compensation up to the limits of the 1992 Fund Convention, or 135 million SDR.¹²⁴ The IOPC Fund's Secretariat lamented the multi-billion dollar impact of the judgment, but the Director accepted that the London Club only had itself to blame, and that the result was based on a fair interpretation of the 1992 CLC and Fund Conventions.¹²⁵

¹²⁰ Soyer, "Compensation for Pollution Damage", above n 113, at 75.

¹²¹ STS (Criminal Chamber), Jan 14, 2016 (IMS, No 865/2015) (Spain) (*The Prestige*).

¹²² At 132.

¹²³ At 136.

¹²⁴ At 139.

¹²⁵ International Oil Pollution Fund 1992 "*Prestige Incident Report*" (Presented to the April, 2016, session of the 1992 Fund Executive Committee) Incidents <www.iopcfunds.org> (accessed 30th July, 2016).

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The point is that the shipowners', insurers' and IOPC Fund's limits of liability and compensation are usually set by pre-agreed limits, and that right to limit liability is only lost in the most extreme circumstances. Pollution damage is defined by the reasonable costs of remedying the harm that has been caused and not out of a desire to punish the shipowner, the insurer or the Fund. Further, the IOPC Fund has proven itself to be highly adaptable and adroit at managing claims guidelines for oil pollution damage caused by shipping. There is no reason to think it could not help to shape the system to manage future claims for damage caused by offshore petroleum activities. Indeed, if offshore oil well disasters are as rare as the various oil and gas industry groups have argued, then it would make more sense to fold that liability into the existing CLC and Fund Convention regime, rather than creating an entirely new system with additional administrative and transaction costs for an eventuality which, however expensive, may only occur once in a generation.

13.4 Concluding Remarks

Even after the experience of *Deepwater Horizon* and *Montara*, there is a lack of consensus over the need for an international offshore liability and compensation convention. The current relevant international and regional conventions call upon nations to cooperate in managing the global marine commons, and do provide some rules regarding pollution damage from offshore installations. However, in the main they focus on shipping and it has proven impossible to subject the offshore mining industries to more than domestic regulation. Nation states have much to benefit from attracting international investment in offshore mining and drilling activities, and the international community has demonstrated a marked aversion to dealing with the environmentally damaging consequences. Activities which are carried out within a single nation's EEZ are seen as being solely within the jurisdiction of that nation. Any proposal for an international liability and fund convention must therefore overcome the objection that such matters are solely the concern of the nation where the activity is carried out. Shipping is more naturally the concern of the international community because ships, by their nature, travel around the world, bearing little legal connection to the nations whose waters they may pass through, and whose interests they may damage. Offshore oil pollution damage, on that

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rationale, only has an international dimension when it travels beyond the waters controlled by that state. At most then, states may face liability between one another for transboundary damage caused by offshore activities within their jurisdiction, but even then, only if it could be proven that the state failed in its due diligence duty to monitor those activities, and that failure led to the damage suffered.

Discussions about whether the IMO should take a lead in adapting the CLC and Fund Conventions to include oil pollution damage from offshore petroleum activities have yet to bear fruit, and it is possible that it would take another *Deepwater Horizon*, or even a string of such disasters for the global community to gather its resolve. At most, the IMO has suggested that existing international law is sufficient to guarantee the safety of offshore operations, and that a regional approach to liability and compensation issues is best. OPOL provides a template for a strong regional solution liability and compensation for offshore oil spills. Yet it was only originally proposed because the oil industry assumed that the CLEE convention was to be imminently ratified. Much like the TOVALOP and CRISTAL agreements before it, the industry felt that it was better to make its own arrangements than to be pushed into something far more stringent. Further, the agreement garnered the support of a number of powerful coastal states that had a clear interest in exploiting their offshore oil and gas resources, but whose close proximity made them equally highly motivated to harmonize their oil spill liability and compensation laws.

The problem that New Zealand faces is that it is geographically isolated from any potential regional partners. Its EEZ does touch the boundaries of the EEZ's of Tonga, Fiji and Australia, so there is a distant possibility that an incident in New Zealand waters would cause damage to the fishing interests of those nations, but there is practically no likelihood that an oil spill from activities on New Zealand's continental shelf would seriously impact the coastline of any other nation.¹²⁶ The result is that there is little prospect that the nations of the South Pacific will do more than cooperate in offering aid and advice in the aftermath of oil well disasters, but will be restrained out of respect for each other's sovereign rights to develop their

¹²⁶ Land Information New Zealand "Map of the Continental Shelf Boundary" <www.linz.govt.nz> (accessed 30 August 2016).

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own seabed mineral resources. In the absence of some international or regional liability and compensation agreement, New Zealand will have to continue to rely upon its current safety regulations to prevent accidents from occurring and upon its offshore petroleum liability to impose liability for pollution damage.

If we see the international petroleum industry as being truly international, then the objections to the establishment of an international liability and fund convention become less convincing. The line between a ship and an offshore installation, especially one which bears most of the characteristics of a ship, has always been somewhat arbitrary. In fact, it would benefit international operators to be subject to known and agreed liability rules. At present, each coastal state has its own legal traditions and environmental regulations, which presents international operators with a myriad of rules to negotiate. Complicated and open-ended liabilities make it difficult to obtain insurance and increase operating costs. One consistent and consistently applied international regime would level the playing field, protecting the interests of both host state and offshore operator. In the meantime, there will be plenty of work for lawyers.

14 Conclusions and Recommendations

The world looked on in amazement when the *Deepwater Horizon* exploded into flame on April 20 2010, killing 11 men and spilling 4.9 million barrels of oil into the waters of the Gulf of Mexico. For 87 days, a vast, seemingly unstoppable plume of oil gouted from the seabed over 1.5kms below the surface of the ocean, defying the combined efforts of the BP, Transocean and Halliburton, the US Coastguard, five state governments and the federal government. Yet at the same time, New Zealand's government was endeavouring to increase revenues from offshore petroleum exploration and extraction activities, encouraging petroleum companies to operate at even greater depths, and seemingly with little consideration of the potential liability issues.

It was for this reason that this thesis chose to ask, what would happen if a *Deepwater Horizon* sized blowout occurred in New Zealand waters? Was the New Zealand law prepared to address basic issues of liability? Who would be held liable to bring claims for pollution damage, and who would have standing to pursue those claims? How would pollution damage claims be defined and quantified? What financial security, if any, would the owners and operators of offshore petroleum exploration and extraction activities be required to provide and would that be sufficient to cover the costs of all subsequent claims? The answers to these questions are not straightforward, but they do tell us much about the sorts of considerations that need to go into developing a liability regime to provide funding for preventing, remediating and restoring environmental damage.

This thesis can be thought of as being organized into three main parts. First, it looked at New Zealand's current offshore energy policy and how its offshore petroleum liability regime was adapted from the international shipping civil liability and fund conventions. Secondly, it explored how and why those international conventions were conceived and developed. Finally, it analysed the EU's Environmental Liability Directive to see how it would apply to offshore oil and gas activities in the EU's marine waters since the advent of the Offshore Safety

Directive. Before deciding what lessons New Zealand should take from the international shipping conventions and the EU's experience, let us review the thesis.

14.1 Thesis Review

Originally, this thesis began as an attempt to ascertain what New Zealand's Maritime Transport Act 1994 meant by the term "pollution damage". The first thing that that author realised, as a newcomer to this field, is that there is no international offshore liability and compensation fund convention. The sole international convention providing agreed upon rules enforcing liability for oil pollution damage was the 1992 CLC Convention, and the only international compensation fund for oil pollution damage is its complementary 1992 Fund Convention. However, these conventions only apply to ship-source oil spills. All efforts to expand that regime to include offshore oil spills, pollution damage caused by offshore petroleum exploration and extraction activities have been blocked.

In order to understand how CLC and Fund Convention system would work, and why New Zealand may have been mistaken in its approach to marine pollution damage caused by offshore oil spills, it was necessary for this thesis to begin by understanding how the CLC and Fund Conventions formed through a coalition of shipowners, insurers and the cargo-owning oil importers. Meanwhile, the EU took much longer in developing its own Environmental Liability Directive ("ELD"), but its objective was to create a supranational framework legislation that would allow its Member States to hold operators of any occupational activity liable for any damage they caused, so long as that damage fell within one of three categories of damage to protected species and natural habitats, water or land. Both New Zealand and the EU have struggled with the problems of defining, quantifying and financially securing pollution or environmental damage caused by offshore oil spills, and both regimes are in need of amendment.

14.1.1 New Zealand's Offshore Marine Pollution Damage Liability Laws

At its root, New Zealand's recent energy policy has been marked by a reluctance to create harsh regulatory or liability laws that could deter investment in emerging

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offshore oil and gas exploration areas. As the government prepared legislation to regulate the country's vast EEZ, it sponsored a series of petroleum expert reports which unanimously argued that the EEZ must contain tremendous mineral and petroleum resources and that every effort should be made to help operators to exploit them. The question of liability for any subsequent offshore oil spills was barely raised. The assumption appears to have been that offshore oil well blowouts are so rare, and the permitting process so robust, that it was not necessary to reconsider the potential risks and costs of any particular offshore oil well blowout scenario. The *Deepwater Horizon* was quickly followed by the *Rena* disaster, and public outcry in New Zealand forced the government to revisit these assumptions, only to insist that New Zealand's petroleum permitting, oil spill prevention, and liability regimes were already adequate. However, this thesis has demonstrated that those claims were inaccurate at best. Indeed, when we look back at New Zealand's historic legislation, we can see that successive governments have failed to consider whether the offshore petroleum liability regime is fit for purpose.

New Zealand has developed marine pollution laws over many decades. The pre-War Petroleum and Public Works Acts, and later the Oil in Navigable Waters Act 1965, already contained obligations and penalties for discharging harmful substances into New Zealand waters, but property damage compensation was based on market valuations, and offshore operators were not subject to mandatory insurance requirements.

These penalties live on in today's Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 ("EEZ Act") and in the Resource Management Act 1991, which gives local and regional authorities power to prosecute polluters in New Zealand's internal and coastal waters. These penalties can range from clean-up costs, triple damages on any profit is earned, and ongoing fines for every day that the discharge continues. The Maritime Transport Act 1994 also included custodial sentences for discharging harmful substances from marine installations, until 2015 when the EEZ Act empowered the Environmental Protection Authority to prosecute offshore petroleum exploration and extraction activities for that offense, but removed their ability to jail guilty owners or operators. The Crown Minerals Act 1991 contains penalties for the failure to abide by good industry

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practice. There are also penalties for the failure to maintain a safe work environment in the Health and Safety at Work Act 2015, and an employer could have to pay serious reparations or even be imprisoned for causing an employee's death. The liability picture could become even more complicated when operator's and permit participants' joint operating agreements come into play.

The issue of civil liability for marine oil pollution damage came to the forefront of international attention following the 1967 sinking of the *Torrey Canyon*, and the 1969 Santa Barbara oil well blowout. New Zealand played an active part in drafting the CLC Convention 1969 and the Fund Convention 1971, and it accepted and ratified both conventions into law with the enactment of the Marine Pollution Act 1974 ("MPA"). The 1974 Act provided the opportunity to capture pollution damage caused by other sources of oil pollution damage, such as non-CLC ships, offshore installations and pipelines, but its drafters appeared not to realise how important it was to be sure that liability would be guaranteed with mandatory insurance requirements. It was not until 1998, four years after the Maritime Transport Act 1994 ("MTA") came into force, that New Zealand created Marine Protection Rules: Part 102 mandatory insurance regulations. These provided that the owners of offshore installations must obtain pollution damage insurance to the minimum level of 14m IMF units of account, or approximately \$26m NZD, an amount which was objectively insufficient to cover any major offshore oil spill.

This thesis could find no evidence that any New Zealand government had seriously considered how either the MPA's or the MTA's offshore marine pollution damage liability regimes would work in practice. Both the MPA and the MTA expanded pollution damage liability to cover ever-wider categories of owners of offshore installations, presumably with the intent of ensuring that the persons responsible for causing the damage would escape liability. Unfortunately, this occurred without those acts authors leaving policy documents indicating what that liability might entail, or how they intended any damages to be financially secured. As Chapter Five pointed out, the critics of the policy insist that mandatory insurance regulations only increase the cost of doing business and the risk of moral hazard, thereby creating the conditions for market collapse. However, mandatory insurance is the bedrock

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of the CLC and Fund Conventions, and it is difficult to see how a strict liability regime can work without some financial security guarantees.

Sometime in 2013, and prompted by the *Deepwater Horizon* and by its experience with the *Rena*, Maritime NZ revised its approach to the Marine Protection Rules: Part 102 mandatory insurance requirements, issuing a statement to the offshore installation owners indicating that it would be taking a much harder look at the adequacy of their insurance arrangements. In 2014, the Ministry of Transport issued a Consultation Document on a proposal to increase the mandatory insurance level to \$300m NZD. However, this document seemed more concerned with assuring the public that offshore oil and gas activities were already well regulated than it was with ensuring that the mandatory insurance regulations were based on a sound understanding of the MTA's offshore petroleum liability regime. The various permitting, health and safety and environmental regulatory regimes did give some consideration to operators' financial capacities, but the Consultation Document was somewhat disingenuous in asserting that those obligations had anything to do with compensating third parties for pollution damage.

The final financial assurance regime proposes that offshore installations are to be individually assessed and placed into one of eight insurance bands ranging from \$25m NZD to \$600m NZD. The new regime appears to have designed so that the coverage requirements can be easily met with standard first party property damage and Operators Extra Expense insurance forms. Owners will still be strictly liable for the full range of damages under the MTA, but they only have to find insurance to cover liability for the direct costs of dealing with pollution, for pollution damage to property, for the costs of reasonable preventive measures and for reinstatement measures. It is not clear whether this last term refers to "reasonable measures of reinstatement of the environment", or to reinstatement directed at "losses of profit from impairment of the environment". The MOT's subsequent Invitation to Comment leaves further room for doubt as it promises to provide a set of liability guidelines at some point in the future, indicating that the financial assurance regime is still not based on an informed analysis of the MTA's structure, scope and definitions.

14.1.2 Lessons from Tort Law

Prior to the CLC and Fund Conventions, the primary remedies for marine oil spills were to be found in the common law of tort. The Conventions have occupied the field for claims for tanker spills, and New Zealand's Maritime Transport Act 1994 bars claims in tort for spills caused by CLC ships. There is no such statutory bar preventing any person from bringing a tortious claim for marine pollution damage caused by offshore petroleum activities or installations, however. It follows that tort law remains significant to this discussion of offshore installation owners' liabilities.

The *Inverpool* was the first oil pollution damage case to reach the House of Lords. The Lords were unable to fault the master's decision to spill his ship's cargo of oil onto the Southport township's river bank, and even after evidence emerged of the shipowner's actual fault and privity in sending an unseaworthy ship to sea. The case demonstrates the difficulty of obtaining compensation in tort law, difficulties which persist to this day, but it is even more relevant to this thesis considering that the High Court Judge in the original action would go on to represent the United Kingdom at the CLC Convention Conference in Brussels in 1969. Devlin J, later Lord Devlin, would be instrumental in supporting the CLC Convention's choice of a strict liability, mandatory insurance and compensation fund model to cover just the kinds of damages which had escaped the net of the common law.

The *Inverpool*, and later the *Wagon Mound (No 2)*, also established that the most appropriate cause of action for a marine oil spill was in negligence, not trespass or nuisance. According to the highway rule, the innocent bystander must bear the cost of any accident unless he or she can prove that the defendant was at fault.¹ That burden of proof can be heavy, and the *Inverpool* demonstrated how even valid claims could be derailed by mistakes in civil procedure. The court refused to allow the plaintiffs to make use of the *res ipsa loquitur* principle to reverse that burden of proof; a stance that the judiciary holds to this day.

¹ *Esso Petroleum Co Ltd v Southport Corporation* [1956] AC 218 (HL); *Overseas Tankship (UK) Ltd v Miller Steamship Co Pty Ltd* [1967] 1 AC 617 (PC) [The *Wagon Mound (No 2)*].

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As an alternative to negligence, the tort of public nuisance does offer the advantage of strict liability, but it can be difficult for individual members of the public to establish their standing, and, even if they do, the normal remedy is injunction not damages. The Canadian case of *British Columbia v Canadian Forest Products* demonstrated that the Crown could assert its role as *parens patriae* to obtain compensatory damages for damage to the environment, so long as the claim is backed by some practicable environmental valuation methodology.² Suggestions that the rule in *Rylands v Fletcher* could offer a happier solution for plaintiffs seeking a strict liability remedy have been criticized, and the tort has largely been subsumed within nuisance.

The conclusion we can draw from this is that while tort law remains relevant to marine oil spill liability, it does not offer any easy solutions to plaintiffs. Unless the innocent victim of an offshore oil spill can prove that the owner or operator of the offshore installation or activity can be shown to have been negligent, and that negligence caused the damage being complained of, then the claim will fail. Offshore petroleum exploration and extraction activities are inherently hazardous. It cannot be assumed that just because an accident has occurred, that anyone involved was negligent. It also does not follow that the person who caused the accident will also have the funds to cover any claims. It is for this reason that the MTA and its strict liability provisions for marine pollution damage, backed up by the mandatory insurance requirements in MPR Part 102, is so important. Tortious liability may only complicate and prolong the legal consequences of any future offshore accident in New Zealand waters, without any guarantees that fair compensation will be paid for any damage those accidents may cause, and that benefits nobody.

14.1.3 The CLC and Fund Convention Regime

The CLC and Fund Conventions intended to offer an international solution for the liability and compensation problems marine disasters that tort law apparently could not solve. Most accounts of the Conventions therefore begin with that terrible accident, delving into the extraordinary circumstances around its sinking: the

² Bill Atkin “Nuisance” in Stephen Todd (ed) *The Law of Torts in New Zealand* (7th ed, Thomson Reuters New Zealand Ltd, Wellington, NZ, 2016) 525 at 562.

fantastical images of fighter bombers attacking the sunken wreck, the vast plume of oil crossing the breadth of the English Channel, and the tremendous difficulties the United Kingdom and French governments had in bringing its owners to court.

The authors of the CLC and Fund Convention were able to achieve a relatively straightforward approach to a single issue, liability and compensation for oil pollution damage from tankers, because they were able to learn lessons from the accident, and to take advantage of well-established concepts in international maritime law. The privilege to limit liability according to the value of the thing causing the harm dated back to Roman times, but the utter destruction of the *Torrey Canyon* showed the futility of securing those with the value of the ship and cargo only if they survived to the end of the voyage. The Conventions would therefore base their limits on the size of the ship, and not its value. The TOVALOP and CRISTAL agreements showed that the shipping and oil industries were prepared to accept fault-based liability with a reversed burden of proof, and this eased the road to choosing strict liability. The battle that the French and United Kingdom governments faced in bringing the owners of the *Torrey Canyon*, only resolved by the seizures of the *Lake Palourde*, first by the United Kingdom and then by the French officials, showed how important it was to grant sole competence to adjudicate pollution damage claims to the courts of the affected states. Perhaps most importantly, the International Protection and Indemnity Societies provided standard insurance policies that could be linked to those limits of liability, guaranteeing that compensation would be paid regardless of the shipowner's financial solvency.

All the appropriate liability tools and concepts were available, but even so, the 1969 CLC Convention Conference very nearly ended in stalemate. The key moment came late in the process, when Lord Devlin threw the United Kingdom delegation's support behind the Belgian proposal for an industry-fed compensation fund, on the understanding that the insurance industry would guarantee the shipowner's strict liability up to pre-set limits calculated on the ship's gross tonnage. It would take a further conference to hammer out more of the crucial details, and to decide on the Fund Convention 1971's appropriate scope, but essentially the agreement had been reached.

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The CLC and Fund Convention regime provided general terms of liability for the costs of pollution damage and preventive measures, but defining and quantifying damages would be left to the national courts of the territory where the damage occurred. This policy was politically necessary, but it quickly led to a handful of large and unexpected claims. For example, the *Antonio Gramsci* case witnessed the use of the Soviet Methodica, which calculated liability according to estimates of how much seawater had been contaminated, and, outside of the Conventions but still relevant to debate, the *Zoe Colocotroni*'s so-called "bug-count" damage claims were generated from surveys estimating the numbers of marine life forms lost, and then calculating their replacement cost on hypothetical laboratory supply market.³ Both methodologies were problematic, not only because they increased the quantum of damages significantly, but because neither guaranteed that any sum of monies could or would actually be spent on restoring the environment to its original state. The IOPC Fund responded with a 1980 Resolution declaring its determination that compensation claims should no longer be based on "an abstract quantification of damage calculated in accordance with theoretical models" and that compensation claims would be based on actual funds spent on reasonable preventive and remedial measures.⁴ However, later cases like that of the *Patmos* would show that national courts remained willing to make their own determinations of what pollution damage liability meant. The IOPC Fund's decisions and recommendations are not binding and there is still the potential for further unforeseen claims in the future.

As international crises, steadily increasing consumption of petroleum and rapid advances in shipbuilding technology combined to supersize tankers, the Conventions' limits of liability and compensation quickly became obsolete. In 1984, the International Maritime Organization convened a further conference update the Conventions' limits, and to amend their definitions. Rather than simply excluding environmental damage per se claims, the new definition of pollution damage would allow businesses to claim for losses of profit caused by the

³ International Maritime Organization *Official Records of the International Conference on Liability and Compensation for Damage in Connexion with the Carriage of Certain Substances by Sea, 1984 and the International Conference on the Revision of the 1969 Civil Liability Convention and the 1971 Fund Convention, 1992 Vol 2* (IMO, London, 1993), LEG/CONF.6/C.2/SR.3 at 348-349.

⁴ International Oil Pollution Compensation Fund *1st extraordinary session: Agenda item 16, "Record of Decisions", Annex I, "Resolution adopted on 10 October 1980"* (1980) FUND/A/ES1/13 at 11.

impairment of the environment, and participating states would be able to claim for the costs of reasonable measures of reinstatement of the environment. Thus, the focus would remain on the actual harm that oil pollution causes, and the true cost of measures aimed at remediating that harm, rather than on speculative or punitive damages. The 1984 Protocols were initially rejected after the United States of America withdrew its support but formed the basis of the 1992 CLC and Fund Conventions once it was agreed that there would be a cap on contributions from the major importers of oil.

In contrast to early criticism of bug counting, the IOPC Fund now accepts that post-spill pollution damage studies can aid in quantifying compensation claims. However, the prevailing view is that the marine environment is capable of recovering naturally without human interference and should be allowed to do so. Environmental reinstatement measures must be quantifiable and shown to effectively accelerate that natural recovery. Businesses can only claim for losses of profit if they are directly impacted by the oil spill, and lack of proximity to the affected area is a factor in denying claims.

The case of the *Slops* provided further evidence of national courts' tendency to expand the scope of the Conventions, and prompted the IOPC Fund to review its policy on the distinction between ships and offshore craft. A Greek court decided that a decommissioned tanker, which had been moored for five years and which lacked an engine, or propeller, and had been converted into an FPSO, was a "ship" for the purposes of the CLC and Fund Conventions.⁵ Faced with claims involving vessels used as MARPOL waste processing installations like the *Slops*, or which combined drilling and petroleum processing, the IOPC Fund need to clarify when a ship ceased to be a ship, and when it became a ship again.

The solution was to develop a hybrid approach. This involves considering lists of possible ships and offshore craft and asking what role they play in the maritime transport chain. CLC-ships must be capable of carrying bulk cargoes of oil on voyages at sea, and actually be doing so. Permanently moored FPSOs, or drillships

⁵ Yiannis Timagenis and Stavros Stavroulakis "Areios Pagos (the 'Slops' case)" (2010) 1 Aegean Rev Law Sea 141

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that are actively involved in offshore petroleum activities, are not covered, even if they are carrying bulk quantities of petroleum and have the potential to cause major damage.

The IMO would later refuse to expand its work schedule to include offshore petroleum activities after Indonesia raised the issue following the *Montara* accident, and that has again stalled efforts to create a true international petroleum industry liability and fund convention regime. Their current recommendation is that it is up to regional groupings to form their own compensation and liability arrangements, and it is very unlikely that an international offshore CLC and Fund Convention will be adopted in the near to medium future. Another massive *Deepwater Horizon* sized disaster could change those calculations, however, especially if it affected the Conventions' major participating states. New Zealand should be prepared to support or oppose such a proposal on its merits, should that time come.

14.1.4 The EU's Directives on Environmental Liability and their application to the Offshore Industry

Meanwhile, the *Deepwater Horizon* prompted the European Union to expand its own Environmental Liability Directive to include offshore oil and gas activities with the Offshore Safety Directive.⁶ The ELD also has strong links to the CLC and Fund Conventions, and the original Green Paper would have imposed strict liability for a wide range of environmental, property and personal damages, enforcing mandatory insurance and obliging industry operators to contribute to an environmental damage compensation fund. Political necessity would force the EU Commission to drastically narrow the ELD's focus, and the subsequent White Paper dictated that the ELD exclude traditional damages claims, focussing only on damage to the environment itself, leaving many crucial issues, including the question of mandatory insurance, to the Member States.

⁶ Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage [2004] OJ L 143/56; Directive 2013/30/ EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC [2013] OJ L 178/66.

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Examining this process provides golden opportunity for a lesson in comparative law. It demonstrates the tremendous difficulties that international organizations face in creating liability frameworks to suit their participating states' needs, while fulfilling the objective of making polluters pay, and, vice versa, that participating states face in adopting those frameworks into domestic law. Not only that, but by examining how those legal liability frameworks are implemented and enforced, we can see practical solutions evolving in real time, and adopt the best solutions to the complexities of assessing and remediating environmental and financial damages caused by hazardous activities, wherever those solutions might be found.

This is even more clear, considering that while the CLC and Fund Conventions initially focussed solely on traditional damages claims, the ELD was specifically designed to exclude traditional damages claims in favour of environmental damage. Yet, even with their diametrically opposed starting points, each has produced markedly similar outcomes in terms of how preventive and remedial measures are to be assessed. Both provide strict liability for damage to the environment, both contain expectations concerning financial security arrangements. Member States are expected to work towards developing financial security markets and products to enable operators to meet those costs, and the EU Commission has given serious thought to the notion of establishing an environmental damage compensation fund.

The failure of two Waste Directive proposals in the 1980s taught the EU Commission that it could not directly replicate the CLC Convention's approach of addressing pollution damage one industrial sector at a time. The 1993 Green Paper therefore proposed to create an all-encompassing tort-like civil liability framework. This would address all the consequences of industrial disasters, including damage to the environment itself, traditional damages claims for loss of life or personal injury, for property damage, and consequential economic losses, retrospective liability for historically contaminated sites and pollution contributed by a multitude of diffuse sources. The Waste Directives had sought to copy the CLC Convention and Fund Conventions' blue print for a strict liability regime, backed up by mandatory insurance and a compensation fund, and their failure did not augur well for the Green Paper's proposal to do the same.

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The Green Paper met staunch opposition from Member States and powerful industrial lobby groups, forcing the subsequent White Paper to narrow its scope and to shift to a two-tiered system of administrative liability. Citizens and non-governmental organizations would only have a right to request that the competent authority took action, and the focus would now be on recovering the costs of preventing and remediating damage to the environment itself. The competent authority would play the primary role in enforcing environmental damage cost recovery, and traditional damages claims would be left Member States' laws. There would be no CERCLA-style retrospective liability for historic contamination. Claims for diffuse pollution damage would be allowed, but only if they could show a clear causal connection to a specific operator's occupational activities.

One of the reasons for this shift is that the EU must justify any legislation in terms of subsidiarity and proportionality. These fundamental constitutional principles dictate that the EU should only legislate on issues that cannot be dealt with at the Member State level, and then only to the extent that is necessary to reach a specific objective. The EU Commission attempted to argue that harmonized environmental liability laws were necessary to protect the integrity of the EU's internal market, to prevent Member States from shattering the concord the EU depends upon by engaging in an anti-competitive and self-destructive race-to-the-bottom, trading loose environmental protections for economic growth. The Member States already had well developed legal traditions concerning liability for such things as property damage and personal injury, and those laws would be left untouched. It was only the omission to protect the environment itself which would be corrected.

As a further concession to Member States' fears of overly intrusive legislation, and much like the CLC and Fund Conventions, the ELD leaves the specific matters of interpretation and implementation to the Member States. This rule is not specific to the ELD, Article 288 TEU specifies that directives are to be preferred to regulations, and that Member States are always entitled to make their own choice of the form and method of implementation of a directive, so long as the overall objective is achieved. This is a key reason as to why, in spite of the fears of many of its critics, the ELD does not attempt to bind its Member States' hands with mandatory or self-executing provisions. Member States have discretion in deciding about how many

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competent authorities to appoint, how to quantify environmental damage and whether that damage has been significant enough to breach the ELD's activating thresholds, what preventive and remedial activities may be reasonable and necessary, and what measures it may take to secure costs, amongst other things. The result is that, far from harmonizing the EU's environmental damage liability laws, the ELD has resulted in complicated patchwork of laws. This makes it difficult to assess the ELD's overall implementation, or to predict how future environmental catastrophes will be litigated.

Following the *Deepwater Horizon*, the EU Commission quickly reached the view that deepwater drilling was hazardous and demanded greater regulation than might otherwise be expected. Debates between Oil & Gas UK and Norway's Oil and Gas Association and the EU Commission's Joint Research Centre demonstrated a great deal of disagreement about the risks and expenses of any future European *Deepwater Horizon*, however. The JRC believed that the *Deepwater Horizon*'s \$40bn USD figured provided an upper-bound cost, while the Norwegians based their estimates on the hundreds of thousands of well years that offshore installations had been safely operating around the world since 1955. The disputed figures softened the EU Parliament's resolve somewhat, leading it to call for a directive rather than a regulation.

Much like New Zealand's EEZ Act, Directive 2013/30/EU on safety of offshore oil and gas operations ("OSD") focuses on safety regulations aimed at improving major hazard contingency planning. The Member State must ensure that the liable operator clearly identified, and that it will have the financial capability to deal with claims under the ELD and for any economic damages claims in Member States' laws. There was some confusion over whether that liability would be strict or not, however, as the ELD's Annex III has not been amended to include the OSD. Instead, the EU Commission has indicated that offshore oil and gas activities do fall within Annex III because they are covered by the directive concerning the classification, packaging and labelling of dangerous substances. Also, there is caselaw arguing that oil spills should be covered by the EU's Waste Framework Directive.

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The EU Commission commissioned reports to assess the ELD and the OSD, and these concluded that it was not necessary to institute mandatory insurance regulations or to establish an industry-fed environmental damage compensation fund. However, the reports did recommend that Member States in other regions, like the Mediterranean, might adopt their own OPOL style mutual indemnity associations. The EU Commission also considered whether the OSD should be included in the Environmental Crimes Directive, but again resolved that it was too soon to say whether that was necessary.

This thesis identified points of convergence between the IOPC Fund's *Claims Manuals* and the ELD's Annexes on the terms for assessing the effectiveness of preventive and remedial measures. This provides some evidence that, in spite of their very different starting points, liability regimes have a tendency towards practicality. As the ELD is tested in the field, each Member State will observe and learn from the lessons provided by others. The most optimistic end result, therefore, could be that Member States' laws will eventually converge, and that an EU-wide regime will emerge which makes the best use of each Member State's solutions.

14.1.5 An International Offshore Petroleum Industry Convention?

Historically, there have been a handful of attempts to develop an alternative offshore liability and compensation system and that has had an influence on how today's offshore oil and gas activities are conducted. For example, the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources or CLEE Convention, never entered into force, but it did stimulate industry operators in the North Sea area to come together to form the OPOL mutual indemnity agreement.⁷ Other later attempts to engage the IMO more deeply in offshore oil and gas exploration and extraction activities have been considered and dismissed. Most recently, the *Deepwater Horizon* and *Montara* incidents have had their impact on the IMO too, forcing it to respond to calls for the CLC and Fund Conventions to be expanded to

⁷ Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1977 16 ILM 1451 (opened for signature 1 May 1977, not in force); Offshore Pollution Liability Agreement ("OPOL") (effective as of 1 April 2015) <www.opol.org.uk>.

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include oil pollution damage from the offshore petroleum industry, or to create an industry specific liability and compensation convention.

Why is it so difficult to develop an offshore industry pollution damage liability and compensation regime, even in light of recent events? First, the offshore industry enjoyed a prolonged period of relatively safe operations and it was not clear if the *Montara* and *Deepwater Horizon* accidents represented a new norm. The *Torrey Canyon* was quickly followed by two more major incidents and heralded a new era of environmental catastrophes. The risk was real, and the international community was deeply invested in serving up a legal solution.

Paradoxically, it may be that it is because the shipping conventions have been so successful at extracting large compensation claims from the shipping, insurance and oil industries, that those industries will strongly resist any further expansion in liability. So, what justifies the creation of an offshore CLC and Fund Convention, assuming that is the appropriate response? There are significant differences between shipping oil and drilling for oil. Ships travel the world, skipping from jurisdiction to jurisdiction. Happenstance dictates when an accident may occur. The existing limited liability laws protected shipowners to the extent that, if the ship was lost, it was possible that the owners would owe no compensation to third party victims at all. At the same time, it could be so difficult to bring the owners before a competent court that plaintiffs could find it impossible to enforce any judgment. As we recall from the cast of the *Torrey Canyon*, the governments of the United Kingdom and France only succeeded in obtaining a pay-out from the ship's owners by seizing another one of their ships.

Offshore petroleum exploration and extraction activities, on the other hand, usually occur within the jurisdiction of a single country. Under UNCLOS, each state has sovereign rights to the resources of its EEZ and continental shelf, and while it has obligations to carry out those activities safely, it is also the primary beneficiary. The host nation enjoys revenues from those activities and should have little difficulty in bringing actions within the competence of its courts. Strictly speaking, the only time that international law should be engaged is if those activities cause harm to a

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neighbouring nation, and then the host nation is only liable if it can be shown to have failed in its due diligence duties.

The result is that there is no great appetite for any expansion of the CLC and Convention regime or the creation of a similar international offshore liability and fund convention in the short to medium future. Of course, the situation could change if there were another devastating disaster on the scale of the *Deepwater Horizon*, especially if it caused widespread transboundary damage that the responsible parties could not or would not recompense. Otherwise, the status quo remains, and the most likely result, absent an incident provoking another furious public outcry, is that reform is most likely to be restricted to the national or at most regional level.

14.2 Implications for the Reform of New Zealand's Marine Pollution Damage Liability Regime.

What does an analysis of New Zealand's marine pollution damage liability regime, its roots in the CLC and Fund Conventions, and the comparison with the EU's ELD and OSD tell us about the difficulties of building a functional and effective pollution damage liability regime?

Perhaps the chief lesson is that the legal structures, institutions and policy objectives matter. It is not enough to say that the owners and operators of offshore petroleum installations will be liable for the pollution damage that their activities cause. It is vital that lawmakers have a clear idea of how and who that liability is to be enforced upon, who has standing to bring a claim, and how those claims are to be interpreted and quantified, and how the costs of compensation and for preventive and remedial measures are to be allocated and secured. Each stage of the process needs to be assessed on its merits, and it is hoped that this thesis will contribute to that discussion.

The basis of the CLC and Fund Conventions regime's success is the alliance between the shipowners, insurers, and the oil industry. Strict liability ensures that victims do not waste time and energy in proving that the shipowner is at fault. In

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return for accepting that liability will be strict, shipowners enjoy the benefit of clear limits of liability, with certain exceptions and defences. Limits of liability are based upon the size of the ship and not its value at the end of the voyage. This ensures that the limits may be predetermined, and that not only secures the rights of third party claimants, but it also makes it possible to obtain the appropriate insurance. The P&I Clubs play a key role in ensuring that shipowners abide by international safety regulations, and this contributes to reducing the overall tanker accident rate.

Meanwhile, the IOPC Fund has a general standing to represent the interests of oil importers in any CLC court action. It provides ongoing information and policy recommendations about the nature and scope of that liability, but leaves the final determination and quantification of damage claims to the competent courts of the country where the damage occurred. This protects the integrity and stability of the Fund, assuring its contributors that expenses will not be overblown, while giving the affected nation direct control of the process. As for regulators and the general public, any person can bring a claim for compensation, so long as they can prove their losses with such things as receipts or some accepted economic model or valuation methodology. The overall outcome is that tanker spills have steadily decreased, the consensus that the Convention regime relies upon is assured, and the regime has survived to this day.

Both the EU's ELD and New Zealand's marine pollution damage liability regime have struggled with the issue of mandatory insurance, because they were adopted without first creating that crucial alliance. New Zealand's broad approach may have been dictated by fears that the responsible owner would escape liability, but it also has roots in the paucity of available insurance. The recent review of the financial assurance regime has significantly strengthened the minimum mandatory insurance requirements, but it needs to do more to create that strong triumvirate strict liability channelled to the installation owner, backed up by mandatory insurance, and compensated by an industry-fed compensation fund. New Zealand's shotgun approach to strict liability was created to capture every potentially responsible party to unlimited tort-like civil liability. Furthermore, it still appears to be based on inaccurate assumptions about the possible financial cost of a New Zealand *Deepwater Horizon* sized accident. This means it may be difficult to anticipate the

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costs of any future accidents. That could increase the costs of insurance premiums, and make it difficult to get insurance coverage at all. This all increases uncertainty of outcome for owners, operators, insurers, government and claimants alike.

It must be remembered that much of the \$40bn USD bill of the *Deepwater Horizon* was due to penalties under the United States' federal laws have no equivalent in New Zealand law. In fact, the whole thrust of the 1992 CLC and Fund Conventions was to exclude claims based on abstract and hypothetical damages claims, and that included punitive damages methodologies such as the Soviet Methodica which, like the United States' Clean Water Act, calculated damages according to the volume of oil spilled. Both the CLC and Fund Conventions focus on reasonable and practical expense claims, and when the IMO's methodologies were applied to the *Deepwater Horizon*, the bill was far smaller and much more manageable. New Zealand policy should welcome that approach, not shy away from it.

The most rational approach would be to make great efforts to emulate the CLC and Fund Conventions' model. That means strict liability should be channelled directly to the actual owner of the installation in question, and to the permitted operator directly responsible for managing day-to-day operations. Liability should be limited, according to the capacity of the current insurance market, and additionally compensation should be recoverable from either an industry-fed fund, or from an OPOL-style mutual indemnity agreement. Rather than automatically subjecting all claims to litigation, compensation claims should, in the first instance, be administered by a specialist regulator. This would streamline the compensation process, largely eliminating the vagaries of litigation, and, as well as that, a specialist compensation authority could facilitate payments, provide valuable information to operators and applicants, and develop compensation policy specific to the changing local regulatory environment. Claimants should still have a right to appeal those decisions, but as long as the regulatory body was performing its compensation adjudication function fairly and efficiently, then most claims could be met quickly and expeditiously.

Who should take on the role of compensation administration and policy development? MOT led the review of the marine pollution damage financial

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assurance regime, and it should continue that good work by also taking the responsibility for adjudicating claims after any future accidents. Maritime NZ has demonstrated their ability to rapidly upskill during the *Rena* disaster, but it also displayed valuable inside knowledge during its review of MPR Part 102 from 2014 on. Indeed, the 2015 financial assurance review was driven in large part because of the concerns that Maritime NZ expressed about the adequacy of installation owners' financial security arrangements. It is Maritime NZ which must cleanup after any oil spill incident, and it is well placed to fulfil that role. Alternatively, the EPA has been given authority to prosecute owners and operators of marine structures and operations for causing discharges of harmful substances. The EPA also has competence to deal with civil liability issues, and it might also make sense to combine those roles.

Maritime NZ, the EPA, or some other appropriate body, should be given clear parameters on its authority, however. New Zealand's MOT has already signalled its commitment to creating liability guidelines, and this should culminate in the publication of New Zealand's own *Marine Pollution Damage Claims Manual*. This task must be completed thoroughly and systematically, but also objectively. Every effort must be made to instil public confidence in the outcome. It follows that any New Zealand *Claims Manual* should be completed by expert lawyers, not inexperienced graduate interns or outside consultants with their own agendas. If Maritime NZ is to enforce pollution damage liability, and if it is to authorise payments, then it should also play a central role in setting compensation policy.

The scope of that inquiry should be expanded to include consideration of other applicable administrative and criminal penalties, as well as tortious liability. At present, the MTA is silent on the rules of standing, pollution damage includes any kind of loss or damage, that liability is unlimited and there is no bar on claims in tort arising from the same incident. The MTA bars tortious claims from arising from oil pollution damage caused by CLC ships, because the CLC and Fund Conventions largely occupy the field. The question is, should the MTA also bar claims in tort for oil pollution damage caused by offshore installations and activities?

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This thesis has explained how the CLC and Fund Conventions were originally established because tort law failed to protect the interests of victims of accidents like the those involving the *Inverpool* and the *Torrey Canyon*. In return for accepting strict liability, shipowners were promised the certainty of channelled and limited liability, supported by mandatory insurance and allied to the oil industry-fed IOPC Fund. New Zealand could and should make the same bargain with the offshore petroleum industry. Instead of pursuing every possible owner and operator of an offshore installation, including directors, managers, permit participants, subcontractors, joint venture partners and employees, liability could be channelled to the actual owner of the installation, and to the operator named in the Crown's minerals exploration and extraction permits.

At present, both the owner and the operator are required to provide certain financial assurances in order to carry out their operations. Obviously, the installation owner must provide Maritime NZ with a certificate of insurance, but the operator is also required to prove their financial capacity to carry out the work programme to New Zealand Petroleum Minerals in order to obtain an exploration permit, and to the EPA as part of the marine consent application. Those financial assurances must be tied closely to their marine pollution damage obligations, and it will be up to the relevant regulatory bodies to ensure that the owner and the operator are prepared for any emergency, including a major oil well blowout and subsequent spill response.

Liability should be limited, not according to the size of the installation, but according to the capacity of currently available insurance products. Insurance could be supplemented or substituted by other financial security arrangements, and Maritime NZ must continue to be trusted to vet any applications for financial security certificates. For example, parent company guarantees could be accepted, but only if the parent company provided ample evidence of its solvency, perhaps in the form of catastrophe bonds, to prove that it was providing more than a bare assurances of a willingness to pay. A bar on tortious claims would help to ensure that proceedings were *res judicata*. This would cut the costs and complexity of litigation, it would save plaintiffs from shouldering the burden of proof necessitated

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by negligence actions, and it would ensure that compensation claims were speedily resolved.

In return for these concessions, permit holders should be compelled to join a New Zealand Oil Pollution Liability agreement, or NZOPOL. Just as in the United Kingdom system, NZOPOL membership should be a necessary part of the permitting regime, and a basic element in establishing that the operator had the financial capacity to carry out its Discharge Management Plan. New Zealand has fewer operators than the North Sea, but given that compensation would only be activated if the responsible operator and its insurer were unable to pay, or if damages claims exceeded the operator's limits of liability, then such a system would provide additional financial assurance without necessarily increasing the costs of operating in New Zealand.

Also, New Zealand is a party to the Noumea Convention, and the argument could be made that such an agreement could be folded into its liability and compensation requirements. Thus, all participating states, including New Zealand, Australia and 21 other island nations, could throw their support behind such a scheme. That would increase the number of operators subjected to mutual indemnity, spreading the risk and costs of any claims, and allowing New Zealand and Australia to support each other, as well as their Pacific Island neighbours. A Noumea Convention OPOL would therefore support diplomatic ties between the nations of the Pacific, and that could have flow-on effects in other areas.

Are there any aspects of the EU's ELD and OSD that could be adopted into New Zealand law? The ELD was created to fill a specific gap in EU Member States' laws. That is, the Member States' laws provided good protections for personal injury and property damage claims, but neglected to provide compensation for damage to the environment itself. It is for this reason that the ELD created a complicated system for categorizing damage to protected species and natural habitats, water or land, assessing the significance of that damage in relation to the baseline condition, and then requiring operators to carry out preventive or remedial measures, or to reimburse the competent authority for those costs. It was necessary to grant standing to the competent authority to pursue such claims, because only the

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state could be said to have the general interest in protecting the environment. In other words, the ELD was the embodiment of the *parens patriae* doctrine.

It was also necessary to expand that regime to the offshore oil and gas industry, because the drafters of the ELD had excluded oil pollution damage, in the belief that any such claim would fall under the auspices of the CLC and Fund Conventions. The *Deepwater Horizon* demonstrated the flaw in that reasoning, and rather than creating a new category of oil pollution damage, the ELD was simply expanded. This creates the problem, however, that the ELD/OSD regime will not provide compensation for the traditional damages claims that fishing, tourism, aquaculture and other coastal property owners are likely to bring. The result is that claimants will be likely to ignore the ELD/OSD regime, and bring action either in tort or under other statutory regimes. This is contrary to the ELD's founding justification, that it was necessary to harmonize Member States' laws with respect to environmental damage. By failing to account for a wide enough array of environmental, financial and property damage claims, the ELD/OSD runs the risk of irrelevancy.

New Zealand's marine pollution damage regime already includes the costs of both traditional and environmental damages, however. The CLC and Fund Conventions' definitions, as adopted into New Zealand law and applied to offshore mining and petroleum activities, were designed to capture both traditional and environmental damage claims. Thus, private individuals can bring a claim for damage to their property or business, and the state can sue for the costs of remediating the environment. It is not necessary then to institute an ELD-style system of pure environmental damage claims in New Zealand law.

What will be necessary, is ensuring that offshore operators carry out their activities according to best practice, and without taking unnecessary risks, and that emergency response and discharge management plans are in place, properly equipped and resourced, and practised in cooperation with Maritime NZ and other local authorities. Operators' liabilities under the MTA and other statutory regimes must be clearly spelled out, and financial security arrangements must be appropriate and sufficient to meet those obligations. Regulators must do more than simply

accept operators' assurances that plans are in place. All aspects of planning and liability must be in place, before an accident occurs, not after.

New Zealand's small size and geographical isolation makes it more difficult to either prepare for a major incident or to obtain timely international assistance. This also makes it difficult to produce the kind of multi-state united front which made the OPOL agreement possible. Subsequently, New Zealand is poorly placed to negotiate strong agreements with international petroleum operators or insurance providers, and must rely upon their assurances of financial solvency, and the capacity of generally available insurance products. Saying that, it is still possible for New Zealand to take a firm stance regarding how its national resources are to be developed. It is incumbent upon us, for our own sake, and for the sake of future generations, to do so.

14.3 Finally

The 2017 election has seen the formation of a Labour-NZ First coalition government with the support of a confidence and supply agreement with the Green Party, and this could have significant implications for the offshore petroleum industry. The Green Party has long been opposed to the use of fossil fuels and strongly advocates for "leave fossil fuels in the ground and learn to live without them" approach to energy policy.⁸ However, the majority coalition partner, the Labour Party, accepted that the world is still strongly dependent upon oil and gas.⁹ Meanwhile, NZ First supported a balancing of economic development and environmental protection, and continuing all marine drilling, exploration and extraction projects with guarantees of public consultation, strong safety regulations and prompt emergency response mechanisms.¹⁰ The two coalition partners were apparently satisfied with the prospect of continuing New Zealand's current level of offshore petroleum activities, however, the Green Party will hold ministerial positions in Climate Change and Conservation, as well as Associate Environment

⁸ Green Party "Empowering NZ" <www.greens.org.nz> (accessed 24 October 2017).

⁹ Labour "Protecting Our Environment" <www.labour.org.nz> (accessed 24 October 2017).

¹⁰ NZ First "Environment and Conservation" <www.nzfirst.org.nz> (accessed 24 October 2017).

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and Associate Transport.¹¹ These are all positions which would give the Green Party a great deal of discretion to reshape New Zealand's offshore marine pollution damage policy.

As it happened, the Labour-New Zealand First coalition apparently bowed to pressure from the Green Party, and unexpectedly announced a moratorium on any future offshore oil and gas exploration. All existing permits will be honoured, but the government will not offer any further exploration permits from 2018. The move has sparked a great deal of comment and opposition, and the National Party has assured the industry that it will reverse the policy when it is next in government. As far as this thesis is concerned then, the move may have merely postponed the issue, as a later government could reverse that policy. At the time of writing, the MTA's pollution damage requirements have not been amended, and future offshore oil and gas developments could still cause blowouts and pollution damage that will engage the law.

New Zealand's marine pollution damage liability laws have been uncertain for far too long. The *Deepwater Horizon*, dreadful as that incident was, represents a golden opportunity to sensibly reform our offshore petroleum liability laws. More work needs to be done to explore how other countries are addressing these issues, but it is hoped that this thesis helps to provide a basis for examining how pollution damage liability and compensation frameworks can and should be developed.

¹¹ Jacinda Ardern and James Shaw *Confidence and Supply Agreement between the New Zealand Labour Party and the Green Party of Aotearoa New Zealand* (24 October 2017) <www.interest.co.nz> (accessed 25 October 2017).

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